

Preliminary  
& Main Exam



# 101 SPEED TESTS

IBPS & SBI PO EXAM

- Quantitative Aptitude
- Reasoning Ability
- English Language
- General Awareness

**TESTS** 96 Topical  
5 Sectional

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# PREFACE

## 101 Speed Tests for IBPS & SBI PO Exam with Success Guarantee

IF YOU MASTER THIS BOOK SUCCESS IS GUARANTEED IN THE UPCOMING PO EXAM

Yes, it's true. If you can master this book you will crack the Bank PO Exam for sure. This is the Most Innovative Book for the most sought after Bank PO Exam. It contains all the IMPORTANT CONCEPTS which are required to crack the exam. The concepts are covered in the form of 101 SPEED TESTS.

No matter where you PREPARE from – a coaching or any textbook/ Guide — 101 SPEED TESTS provides you the right ASSESSMENT on each topic. Your performance provides you the right cues to IMPROVE your concepts so as to perform better in the final examination.

It is to be noted here that these are not mere tests but act as a checklist of student's learning and ability to apply concepts to different problems.

The book is based on the concept of TRP – Test, Revise and Practice. It aims at improving your SPEED followed by STRIKE RATE which will eventually lead to improving your SCORE.

### How is this product different?

- A unique product with 101 speed tests.
- Each test is based on small topics which are most important for the PO exam. Each test contains around 25-30 MCQs on the latest pattern of the exam.
- The whole syllabus has been divided into 5 sections which are further distributed into 96 topics.
  1. QUANTITATIVE APTITUDE is distributed into 31 topics.
  2. REASONING ABILITY is distributed into 29 topics.
  3. ENGLISH is distributed into 14 topics.
  4. COMPUTER KNOWLEDGE is distributed into 6 topics.
  5. GENERAL KNOWLEDGE is distributed into 12 topics.
  6. MARKETING KNOWLEDGE is distributed into 4 topics.
- In the end of each section a Sectional Test is provided so as to sum up the whole section.
- Finally at the end a Mega General Knowledge Test is provided.
- In all, the book contains 2900+ Quality MCQ's in the form of 101 tests.
- Solutions to each of the 101 tests are provided at the end of the book.
- The book provides Separate Tests. The book comes with perforation such that each test can be torn out of the book.
- Separate Time Limit, Maximum Marks, Cut-off, Qualifying Score is provided for each test.
- The book also provides a separate sheet, SCORE TRACKER where you can keep a record of your scores and performance.
- It is advised that the students should take each test very seriously and must attempt only after they have prepared that topic.
- The General Awareness section is upto date.
- Once taken a test the candidates must spend time in analysing their performance which will provide you the right cues to IMPROVE the concepts so as to perform better in the final examination.

It is our strong belief that if an aspirant works hard on the cues provided through each of the tests he/ she can improve his/ her learning and finally the SCORE by at least 20%.

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## 101 SPEED TEST (Topics)

Speed Test	Time	Max. Marks	Cut-off Marks	Qualifying Marks	Marks Scored = Correct Answers $\times$ 1 - (0.25 $\times$ Incorrect Answers)	Success Gap = Qualifying Marks - Marks Scored
1	20	30	12	20		
2	25	35	10	18		
3	30	40	18	28		
4	20	30	10	18		
5	20	30	10	18		
6	20	30	12	22		
7	20	30	10	25		
8	20	30	10	20		
9	20	30	10	20		
10	20	30	12	22		
11	20	30	10	20		
12	20	30	10	20		
13	20	30	10	22		
14	20	30	10	20		
15	20	30	12	20		
16	25	35	15	25		
17	20	30	10	22		
18	20	20	7	15		
19	20	20	8	16		
20	20	20	7	16		
21	20	30	10	18		
22	20	25	8	18		
23	20	30	10	20		
24	20	30	10	20		
25	20	25	10	17		
26	20	30	8	15		
27	20	30	8	15		
28	20	30	8	16		
29	20	30	8	18		
30	20	20	8	16		
31	20	30	10	17		
32	35	50	24	35		
33	20	30	10	18		
34	20	30	12	22		
35	20	30	12	24		

## 101 SPEED TEST (Topics)

Speed Test	Time	Max. Marks	Cut-off Marks	Qualifying Marks	Marks Scored = Correct Answers × 1 - (0.25 × Incorrect Answers)	Success Gap = Qualifying Marks - Marks Scored
36	20	30	10	20		
37	20	30	10	20		
38	20	30	10	22		
39	20	25	10	18		
40	20	30	10	20		
41	20	25	12	20		
42	20	20	10	18		
43	20	30	8	18		
44	20	25	8	16		
45	20	30	10	20		
46	20	20	8	16		
47	20	20	7	14		
48	20	30	10	18		
49	20	30	7	16		
50	20	25	7	20		
51	20	20	7	14		
52	20	20	7	14		
53	20	20	7	12		
54	20	20	7	12		
55	20	30	7	18		
56	20	30	10	20		
57	20	15	6	14		
58	20	30	8	16		
59	30	25	10	24		
60	20	20	7	14		
61	20	20	7	14		
62	35	50	24	38		
63	20	30	10	25		
64	20	30	10	25		
65	20	30	10	26		
66	20	30	12	24		
67	20	30	12	24		
68	20	20	8	16		
69	30	30	12	24		
70	20	30	12	24		

## 101 SPEED TEST (Topics)

Speed Test	Time	Max. Marks	Cut-off Marks	Qualifying Marks	Marks Scored = Correct Answers $\times$ 1 - (0.25 $\times$ Incorrect Answers)	Success Gap = Qualifying Marks - Marks Scored
71	20	30	12	24		
72	20	30	12	24		
73	20	28	12	24		
74	20	30	12	24		
75	20	30	12	24		
76	20	20	12	24		
77	25	40	20	32		
78	20	30	10	24		
79	20	28	10	22		
80	20	30	10	24		
81	20	20	10	15		
82	20	20	10	15		
83	20	30	10	24		
84	20	20	10	16		
85	20	30	10	25		
86	20	30	10	25		
87	20	30	10	25		
88	20	30	10	25		
89	20	30	10	25		
90	20	30	10	25		
91	20	30	10	25		
92	20	30	10	25		
93	20	30	10	25		
94	20	30	10	25		
95	20	30	10	25		
96	30	50	15	25		
97	30	50	15	25		
98	30	50	15	25		
99	30	50	15	25		
100	30	50	15	25		
101	50	100	20	35		





**101 SPEED TEST**

**1**

**NUMBERS**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Fifty - three per cent of a number is 358 less than the square of 26. What is the value of three-fourth of 23 per cent of that number ?  
(a) 103 (b) 109.5 (c) 113  
(d) 103.5 (e) None of these
2. Sum of eight consecutive numbers of Set A is 376. What is the sum of five consecutive numbers of another set if its minimum number is 15 ahead of average of Set A ?  
(a) 296 (b) 320 (c) 324  
(d) 284 (e) None of these
3. What is the least number that can be added to the number 1020 to make it a perfect square ?  
(a) 65 (b) 12 (c) 59  
(d) 4 (e) None of these
4. What is the least number to be subtracted from 945 to make it perfect square ?  
(a) 16 (b) 30 (c) 24  
(d) 45 (e) None of these
5. Deepak has some hens and some goats. If the total number of animal heads is 90 and the total number of animal feet is 248, what is the total number of goats Deepak has ?  
(a) 32 (b) 36  
(c) 34 (d) Cannot be determined  
(e) None of these
6. The sum of the who digits of a number is 15 and the difference between them is 3. What is the product of the two digits of the two digit number ?  
(a) 56 (b) 63  
(c) 42 (d) Cannot be determined  
(e) None of these
7. There are some parrots and some tigers in a forest. If the total number of animal heads in the forest are 858 and total number of animal legs are 1746, what is the number of parrots in the forest ?  
(a) 845 (b) 833  
(c) 800 (d) Cannot be determined  
(e) None of these
8. Two - third of three-fourth of one-fifth of a number is 15. What is 30 per cent of that number ?  
(a) 45 (b) 60 (c) 75  
(d) 30 (e) None of these
9. On Republic Day sweets to be equally distributed among 450 children. But on that particular day, 150 children remained absent. Thus, each child got 3 sweets extra. How many sweets did each child get ?  
(a) 6 (b) 12  
(c) 9 (d) Cannot be determined  
(e) None of these
10. If a number is subtracted by two-third of 75 per cent of 600, the value so obtained is 320. What is the number ?  
(a) 300 (b) 620 (c) 720  
(d) 500 (e) None of these
11. The sum of five consecutive numbers is 270. What is the sum of the second and the fifth number ?  
(a) 108 (b) 107  
(c) 110 (d) Cannot be determined  
(e) None of these
12. The sum of twice of a number and thrice of 42 is 238. What will be the sum of thrice of that number and twice of 42 ?  
(a) 245 (b) 250 (c) 264  
(d) 252 (e) None of these
13. The difference between a two digit number and the number obtained by interchanging the two digit is of the number is 9. If the sum of the two digits of the number is 15, then what is the original number ?  
(a) 89 (b) 67  
(c) 87 (d) Cannot be determined  
(e) None of these
14. An AC consume 8 units of electricity in 30 minutes and a bulb consumes 18 units of electricity in 6 hours. How much total unit of electricity will both AC and bulb consume in 8 days if they run 10 hours a day ?  
(a) 1280 unit (b) 1528 unit (c) 1248 unit  
(d) 1520 unit (e) 1620 unit
15. A number when subtracted by  $\frac{1}{7}$  of itself gives the same value as the sum of all the angles of a triangle. What is the number ?  
(a) 224 (b) 210 (c) 140  
(d) 350 (e) 187

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. Three-fourth of one number is equal to five-sixth of another number. What is the respective ratio of the first number to the second number?  
 (a) 12 : 11 (b) 11 : 9  
 (c) 9 : 10 (d) Cannot be determined  
 (e) None of these
17. Twice the square of a number is six times the other number. What is the ratio of the first number to the second ?  
 (a) 1 : 4 (b) 2 : 5  
 (c) 1 : 3 (d) Cannot be determined  
 (e) None of these
18. If the positions of the digits of a two digit number are interchanged, the number obtained is smaller than the original number by 27. If the digits of the number are in the ratio of 1 : 2, what is the original number ?  
 (a) 36 (b) 63  
 (c) 48 (d) Cannot be determined  
 (e) None of these
19. On a School's Annual Day sweets were to be equally distributed amongst 112 children. But on that particular day, 32 children were absent. Thus the remaining children got 6 extra sweets. How many sweets was each child originally supposed to get ?  
 (a) 24 (b) 18  
 (c) 15 (d) Cannot be determined  
 (e) None of these
20. If  $3\frac{4}{5}$  is subtracted from  $6\frac{3}{5}$  and difference is multiplied by 355 then what will be the final number ?  
 (a) 1004 (b) 884 (c) 774  
 (d) 994 (e) None of these
21. The number obtained by interchanging the digits of a two digit number is less than the original number by 63. If the sum of the digits of the number is 11, what is the original number?  
 (a) 29 (b) 92  
 (c) 74 (d) Cannot be determined  
 (e) None of these
22. One-fifth of a number is 81. What will 68% of that number be ?  
 (a) 195.2 (b) 275.4 (c) 225.6  
 (d) 165.8 (e) None of these
23. Which number should replace both the question marks in the following equation ?  

$$\frac{?}{432} = \frac{243}{?}$$
 (a) 308 (b) 312 (c) 324  
 (d) 316 (e) None of these
24. What is the greater of two numbers whose product is 640, if the sum of the two numbers, exceeds their difference by 32 ?  
 (a) 45 (b) 50 (c) 55  
 (d) 40 (e) None of these
25. Five-sixth of a number is 720. What will 45% of that number be?  
 (a) 346.6 (b) 388.8 (c) 392.2  
 (d) 344.4 (e) None of these
26. By how much is  $\frac{3}{4}$ th of 568 lesser than  $\frac{7}{8}$ th of 1008 ?  
 (a) 444 (b) 448 (c) 456  
 (d) 456 (e) None of these
27. Twice the square of a number is more than eleven times the number by 21. The number can have which of the following values.  
 (a) 4 or  $-\frac{7}{2}$  (b) 7 or  $-\frac{3}{2}$  (c) 3 or  $-\frac{7}{2}$   
 (d)  $\frac{9}{2}$  or -4 (e) None of these
28. The product of two successive even numbers is 6888. Which is the greater of the two numbers ?  
 (a) 78 (b) 82 (c) 86  
 (d) 90 (e) None of these
29. At the first stop on his route, a driver unloaded  $\frac{2}{5}$  of the packages in his van. After he unloaded another three packages at his next stop,  $\frac{1}{2}$  of the original number of packages remained. How many packages were in the van before the first delivery?  
 (a) 25 (b) 10 (c) 30  
 (d) 36 (e) None of these
30. An army Commander wishing to draw up his 5180 men in the form of a solid square found that he had 4 men less. If he could get four more men and form the solid square, the number of men in the front row is  
 (a) 72 (b) 68 (c) 78  
 (d) 82 (e) None of these

## FRACTION, HCF AND LCM

Max. Marks : 35

No. of Qs. 35

Time : 25 min.

Date : ...../...../.....

- The respective ratio between the present ages of Ram and Rakesh is 6 : 11. Four years ago, the ratio of the ages was 1 : 2 respectively. What will be Rakesh's age after five years ?  
(a) 45 years (b) 29 years  
(c) 49 years (d) Cannot be determined  
(e) None of these
- If the numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is  $\frac{25}{51}$ , what is the original fraction ?  
(a)  $\frac{11}{17}$  (b)  $\frac{11}{15}$  (c)  $\frac{15}{17}$   
(d)  $\frac{13}{15}$  (e) None of these
- By how much is  $\frac{3}{4}$ th of 968 less than  $\frac{7}{8}$ th of 1008 ?  
(a) 154 (b) 146 (c) 165  
(d) 158 (e) None of these
- Two third of three-fourth of one-fifth of a number is 15. What is 30 per cent of that number ?  
(a) 45 (b) 60 (c) 75  
(d) 30 (e) None of these
- The value of which of the following fractions is less than twenty per cent ?  
(a)  $\frac{5}{6}$  (b)  $\frac{2}{3}$  (c)  $\frac{2}{5}$   
(d)  $\frac{1}{4}$  (e)  $\frac{2}{11}$
- When 30% of one number is subtracted from another number, the second number reduces to its four-fifth. What is the ratio between the first and the second number respectively ?  
(a) 4 : 7 (b) 3 : 2  
(c) 2 : 5 (d) Cannot be determined  
(e) None of these
- If the numerator of a fraction is increased by 400% and the denominator is increased by 500%. The resultant fraction is  $\frac{20}{27}$ . What was the original fraction ?  
(a)  $\frac{9}{8}$  (b)  $\frac{11}{12}$   
(c)  $\frac{3}{4}$  (d) Cannot be determined  
(e) None of these
- If the numerator of a fraction is increased by 200% and the denominator is increased by 350%. The resultant fraction is  $\frac{5}{12}$ . What was the original fraction ?  
(a)  $\frac{5}{9}$  (b)  $\frac{5}{8}$  (c)  $\frac{7}{12}$   
(d)  $\frac{11}{12}$  (e) None of these
- The difference between the  $\frac{3}{4}$ th of  $\frac{4}{5}$ th of a number and  $\frac{1}{6}$ th of  $\frac{2}{5}$ th of the same number is 648. What is the number ?  
(a) 1110 (b) 1215 (c) 1325  
(d) 1440 (e) None of these
- If  $3\frac{4}{5}$  is subtracted from  $6\frac{3}{5}$  and difference is multiplied by 355 then what will be the final number ?  
(a) 1004 (b) 884 (c) 774  
(d) 994 (e) None of these
- If the numerator of a fraction is increased by 240% and the denominator of the fraction is decreased by 50%, the resultant fraction is  $2\frac{5}{6}$ . What is the original fraction ?  
(a)  $\frac{1}{4}$  (b)  $\frac{2}{3}$  (c)  $\frac{5}{12}$   
(d)  $\frac{4}{11}$  (e) None of these
- If the numerator of a fraction is increased by 200% and the denominator is increased by 300%, the resultant fraction is  $\frac{15}{26}$ . What was the original fraction ?  
(a)  $\frac{8}{11}$  (b)  $\frac{10}{11}$  (c)  $\frac{9}{13}$   
(d)  $\frac{10}{13}$  (e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e)

13. One-fifth of a number is 81. What will 68% of that number be ?  
(a) 195.2 (b) 275.4 (c) 225.6  
(d) 165.8 (e) None of these
14. Philip, Tom and Brad start jogging around a circular field and complete a single round in 18, 22 and 30 seconds respectively, In how much time, will they meet again at the starting point ?  
(a) 3 min 15 sec (b) 21 min  
(c) 16 min 30 sec (d) 12 min  
(e) None of these
15. Amit, Sucheta and Neeti start running around a circular track and complete one round in 18, 24 and 32 seconds respectively. In how many seconds will the three meet again at the starting point if they all have started running at the same time ?  
(a) 196 (b) 288  
(c) 324 (d) Cannot be determined  
(e) None of these
16. The numbers 11284 and 7655, when divided by a certain number of three digits, leave the same remainder. Find that number of three digits.  
(a) 161 (b) 171 (c) 181  
(d) 191 (e) None of these
17. The LCM of two numbers is 2079 and their HCF is 27. if one of the numbers is 189, find the other.  
(a) 273 (b) 279 (c) 297  
(d) 307 (e) None of these
18. Find the least number which, when divided by 18, 24, 30 and 42, will leave in each case the same remainder 1.  
(a) 2521 (b) 2556 (c) 2456  
(d) 2473 (e) None of these
19. Find the greatest number of six digits which, no being divided by 6, 8, 9 and 10, leaves 4, 5, 6, 7 and 8 as remainder respectively.  
(a) 997918 (b) 997919 (c) 997914  
(d) 997916 (e) None of these
20. what least number must be subtracted from 1936 so that the remainder when divided by 9, 10, 15 will leave in each case the same remainder ?  
(a) 29 (b) 39 (c) 49  
(d) 59 (e) None of these
21. What greatest number can be subtracted from 10,000 so that the remainder may be divisible by 32, 36, 48 and 54 ?  
(a) 9136 (b) 9191 (c) 9933  
(d) 9216 (e) None of these
22. Find the least number which, when divided by 8, 12 and 16, leaves 3 as the remainder in each case; by 7 leaves no remainder.  
(a) 145 (b) 147 (c) 148  
(d) 157 (e) None of these
23. Find the greatest number that will divide 55, 127 and 175 so as to leave the same remainder in each case.  
(a) 26 (b) 24 (c) 23  
(d) 29 (e) None of these
24. Find the least multiple of 11 which, when divided by 8, 12 and 16, leaves 3 as remainder.  
(a) 13 (b) 18 (c) 28  
(d) 9 (e) None of these
25. What least number should be added to 3500 to make it exactly divisible by 42, 49, 56 and 63?  
(a) 10 (b) 18 (c) 25  
(d) 28 (e) None of these
26. Find the least number which, when divided by 72, 80 and 88, leaves the remainders 52, 60 and 68 respectively.  
(a) 7900 (b) 7800 (c) 7200  
(d) 7600 (e) None of these
27. Find the greatest number of 4 digits which, when divided by 2, 3, 4, 5, 6 and 7, should leave remainder 1 in each case.  
(a) 9661 (b) 9671 (c) 9695  
(d) 9696 (e) None of these
28. The traffic lights at three different road crossings change after every 48 sec., 72 sec., and 108 sec. respectively. If they all change simultaneously at 8:20:00 hrs, then at what time will they again change simultaneously?  
(a) 10 (b) 12 (c) 14  
(d) 16 (e) None of these
29. The HCF and LCM of two numbers are 44 and 264 respectively. If the first number is divided by 2, the quotient is 44. What is the other number?  
(a) 108 (b) 44 (c) 124  
(d) 132 (e) None of these
30. The product of two number si 2160 and their HCF is 12. Find the possible pairs of numbers.  
(a) 1 (b) 2 (c) 3  
(d) 4 (e) None of these
31. Find the greatest number of 4 digits and the least number of 5 digits that have 144 as their HCF.  
(a) 10080 (b) 10980 (c) 10008  
(d) 10990 (e) None of these
32. Find the least number from which 12, 18, 32 or 40 may be subtracted.  
(a) 1440 (b) 1540 (c) 1656  
(d) 1640 (e) None of these
33. Find the least number that, being increased by 8, is divisible by 32, 36 and 40.  
(a) 1432 (b) 1492 (c) 1472  
(d) 1570 (e) None of these
34. Three bells toll at intervals of 9, 12 and 15 minutes respectively. All the three begin to toll at 8 a.m. At what time will they toll together again?  
(a) 8.45 a.m. (b) 10.30 a.m. (c) 11.00 a.m.  
(d) 1.30 p.m.
35. Four metal rods of lengths 78 cm, 104 cm, 117 cm and 169 cm are to be cut into parts of equal length. Each part must be as long as possible. What is the maximum number of pieces that can be cut?  
(a) 27 (b) 36 (c) 43  
(d) 400 (e) 402

**RESPONSE  
GRID**

- |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <b>13.</b> (a)(b)(c)(d)(e) | <b>14.</b> (a)(b)(c)(d)(e) | <b>15.</b> (a)(b)(c)(d)(e) | <b>16.</b> (a)(b)(c)(d)(e) | <b>17.</b> (a)(b)(c)(d)(e) |
| <b>18.</b> (a)(b)(c)(d)(e) | <b>19.</b> (a)(b)(c)(d)(e) | <b>20.</b> (a)(b)(c)(d)(e) | <b>21.</b> (a)(b)(c)(d)(e) | <b>22.</b> (a)(b)(c)(d)(e) |
| <b>23.</b> (a)(b)(c)(d)(e) | <b>24.</b> (a)(b)(c)(d)(e) | <b>25.</b> (a)(b)(c)(d)(e) | <b>26.</b> (a)(b)(c)(d)    | <b>27.</b> (a)(b)(c)(d)(e) |
| <b>28.</b> (a)(b)(c)(d)(e) | <b>29.</b> (a)(b)(c)(d)(e) | <b>30.</b> (a)(b)(c)(d)(e) | <b>31.</b> (a)(b)(c)(d)(e) | <b>32.</b> (a)(b)(c)(d)(e) |
| <b>33.</b> (a)(b)(c)(d)(e) | <b>34.</b> (a)(b)(c)(d)(e) | <b>35.</b> (a)(b)(c)(d)(e) |                            |                            |



**SQUARE ROOT & CUBE ROOTS**

Max. Marks : 40

No. of Qs. 40

Time : 30 min.

Date : ...../...../.....

**Directions (Qs. 1-30):** What should come in place of the question mark (?) in the following questions?

1.  $1190 \div \sqrt{7225} \times ? = 3094$   
 (a) 221 (b) 121 (c) 214  
 (d) 241 (e) None of these
2.  $(\sqrt{5}-1)^2 = ? - 2\sqrt{5}$   
 (a) 6 (b)  $6+2\sqrt{5}$  (c)  $6\sqrt{5}$   
 (d)  $6-2\sqrt{5}$  (e) None of these
3.  $\frac{?}{\sqrt{36}} = \frac{\sqrt{25}}{(11 \times 3 - 18)}$   
 (a) 2 (b) 4 (c) 5  
 (d) 6 (e) None of these
4.  $\sqrt{12 \times 145 \div 6 + 34} = ?$   
 (a) -18 (b)  $(324)^2$  (c) 18  
 (d)  $\sqrt{18}$  (e) None of these
5.  $(13)^2 - (5)^2 - \sqrt{676} + 7 = (?)^2$   
 (a) 10 (b) 20 (c)  $\sqrt{5}$   
 (d)  $(25)^2$  (e) 5
6.  $(16)^2 - 5^3 + \sqrt{169} = (?)^2$   
 (a)  $(12)^2$  (b) 144 (c)  $\sqrt{12}$   
 (d)  $(144)^2$  (e) None of these
7.  $\sqrt{225} + \sqrt{2304} = ? - (12)^2$   
 (a) 205 (b) 207 (c) 206  
 (d) 208 (e) None of these
8.  $\sqrt{450 + 890 + 685} = ?$   
 (a) 43 (b) 45 (c) 55  
 (d) 53 (e) None of these
9.  $\sqrt[3]{6859} = ? - 4$   
 (a) 26 (b) 25 (c) 23  
 (d) 22 (e) None of these
10.  $\sqrt{7 \times 447 \div 21 + 73} - 26 = ?$   
 (a) 196 (b) 16 (c) 13  
 (d) 169 (e) None of these
11.  $38\% \text{ of } 295 + 62\% \text{ of } 445 = ?$   
 (a) 380 (b) 388 (c) 346  
 (d) 391 (e) None of these
12.  $\frac{?}{\sqrt{25}} = \frac{15 \times 4 - 40}{2}$   
 (a) 20 (b) 45 (c) 25  
 (d) 50 (e) None of these
13.  $(656 \div 164)^2 = \sqrt{?}$   
 (a) 14 (b) 16 (c) 64  
 (d) 256 (e) None of these
14.  $255 \div 17 \div 5 = (?)^2$   
 (a) 9 (b)  $\sqrt{3}$  (c) 3  
 (d) 27 (e) 81
15.  $(3^2 \times 4^2 \times 5) \div 36 = (?)^2 - 80$   
 (a)  $(100)^2$  (b)  $\sqrt{10}$  (c) 100  
 (d) 10 (e) None of these
16.  $(\sqrt{6} + 1)^2 = ? + 2\sqrt{6}$   
 (a) 7 (b)  $\sqrt{6}$  (c)  $4\sqrt{6} + 7$   
 (d)  $4\sqrt{6}$  (e) None of these
17.  $\sqrt{12 \times 184 \div 23 + 26} - 73 = ?$   
 (a)  $\sqrt{7}$  (b)  $(7)^2$  (c) 7  
 (d)  $(49)^2$  (e) None of these
18.  $(13)^2 - (4)^3 - \sqrt{676} + 2 = (?)^2$   
 (a) 3 (b) 9 (c) 81  
 (d) 27 (e) 18
19.  $(74 \times \sqrt{676}) - (42 \times \sqrt{?}) = 496$   
 (a) 1024 (b) 1296 (c) 1156  
 (d) 1089 (e) None of these

<b>RESPONSE GRID</b>	1. (a)(b)(c)(d)(e)	2. (a)(b)(c)(d)(e)	3. (a)(b)(c)(d)(e)	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)
	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)
	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	

20.  $(41)^2 + (38)^2 \times (0.15)^2 = ?$   
 (a) 3125.0225 (b) 1713.49 (c) 3125.15  
 (d) 59204.0225 (e) None of these
21.  $\sqrt{97344} = ?$   
 (a) 302 (b) 322 (c) 292  
 (d) 342 (e) None of these
22.  $(2\sqrt{392} - 21) + (\sqrt{8} - 7)^2 = (?)^2$   
 (a) 4 (b) -4 (c) 12  
 (d) 2 (e) 6
23.  $7365 + (5.4)^2 + \sqrt{7} = 7437.16$   
 (a) 1894 (b) 1681 (c) 1764  
 (d) 2025 (e) None of these
24.  $\sqrt[3]{7} = (756 \times 67) \div 804$   
 (a) 195112 (b) 250047 (c) 226981  
 (d) 274625 (e) None of these
25.  $(34.12)^2 - 7396 = ?$   
 (a) 1080.1744 (b) 1078.1474 (c) 1078.1744  
 (d) 1080.1474 (e) None of these
26.  $(73425 - 33267 - 22418 - 17650) \times \sqrt{11025} = ?$   
 (a) 10165 (b) 9785 (c) 8370  
 (d) 9450 (e) None of these
27.  $\{(56)^2 + (44)^2\} \div ? = 16$   
 (a) 329 (b) 335 (c) 343  
 (d) 317 (e) None of these
28.  $\sqrt{17 + \sqrt{51} + \sqrt{152} + \sqrt{289}} = ?$   
 (a) 3 (b) 5 (c) 8  
 (d) 11
29.  $\sqrt{217 + \sqrt{52} + \sqrt{12}} = ?$   
 (a) 18 (b) 16 (c) 12  
 (d) 15 (e) 10
30.  $\sqrt{10201} - \sqrt{3136} = ?$   
 (a) 45 (b) 42 (c) 46  
 (d) 49 (e) None of these

**Directions (Qs. 31-36):** What approximate value will come in place of the question mark (?) in the following questions? (You are not expected to calculate the exact value.)

31.  $\sqrt{3100} \times \sqrt{567} \div \sqrt{250} = ? \div 8$   
 (a) 620 (b) 670 (c) 770  
 (d) 750 (e) 700
32.  $\sqrt{54} \times \sqrt{2120} \div \sqrt{460} = ?$   
 (a) 120 (b) 140 (c) 160  
 (d) 180 (e) 200
33.  $\sqrt[2]{2230} = ?$   
 (a) 54 (b) 59 (c) 41  
 (d) 37 (e) 47
34.  $(\sqrt{7921} - \sqrt{2070.25}) \times \frac{1}{4} = ?$   
 (a) 11 (b) 14 (c) 15  
 (d) 9 (e) 13
35.  $(\sqrt[3]{795657} \times 7) \div (3.8 \times 5.5) = ?$   
 (a) 48 (b) 22 (c) 43  
 (d) 26 (e) 31
36. If  $\sqrt{21025} = 145$ , then the value of  $\sqrt{210.25} + \sqrt{2.1025} = ?$   
 (a) 0.1595 (b) 1.595 (c) 159.5  
 (d) 15.95 (e) None of these
37. What is the least number to be added to 2000 to make it a perfect square?  
 (a) 25 (b) 64 (c) 36  
 (d) 49 (e) None of these
38. If  $(22)^3$  is subtracted from the square of a number, the answer so obtained is 9516. What is the number?  
 (a) 144 (b) 142 (c) 138  
 (d) 136 (e) None of these
39. If the square of a number is subtracted from 4052 and the difference is multiplied by 15, the answer so obtained is 41340. What is the number?  
 (a) 36 (b) 1024 (c) 32  
 (d) 1296 (e) None of these
40. A gardener plants 34969 mango trees in his garden and arranges them so that there are so many rows as there are mango trees in each row. The number of rows is  
 (a) 187 (b) 176 (c) 169  
 (d) 158 (e) None of these

<b>RESPONSE GRID</b>	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)
	<b>25.</b> (a)(b)(c)(d)(e)	<b>26.</b> (a)(b)(c)(d)(e)	<b>27.</b> (a)(b)(c)(d)(e)	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)
	<b>30.</b> (a)(b)(c)(d)(e)	<b>31.</b> (a)(b)(c)(d)(e)	<b>32.</b> (a)(b)(c)(d)(e)	<b>33.</b> (a)(b)(c)(d)(e)	<b>34.</b> (a)(b)(c)(d)(e)
	<b>35.</b> (a)(b)(c)(d)(e)	<b>36.</b> (a)(b)(c)(d)(e)	<b>37.</b> (a)(b)(c)(d)(e)	<b>38.</b> (a)(b)(c)(d)(e)	<b>39.</b> (a)(b)(c)(d)(e)
	<b>40.</b> (a)(b)(c)(d)(e)				



## PERCENTAGE - 1

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1-18):** What should come in place of the question mark (?) in the following questions?

1.  $76\%$  of 1285 =  $35\%$  of 1256 + ?  
(a) 543 (b) 537 (c) 547  
(d) 533 (e) None of these
2.  $(21.5\%$  of 999) $^{1/3}$  +  $(43\%$  of 601) $^{1/2}$  = ?  
(a) 18 (b) 22 (c) 26  
(d) 30 (e) 33
3.  $64.5\%$  of 800 +  $36.4\%$  of 1500 = (?) $^2$  + 38  
(a) 32 (b) 38 (c) 42  
(d) 48 (e) 34
4.  $41\%$  of 601 – 250.17 = ? –  $77\%$  of 910  
(a) 800 (b) 500 (c) 700  
(d) 650 (e) 550
5.  $40.005\%$  of 439.998 + ?% of 655.011 = 228.5  
(a) 8 (b) 17 (c) 12  
(d) 20 (e) 5
6.  $25\%$  of 84 ×  $24\%$  of 85 = ?  
(a) 424.2 (b) 488.4 (c) 482.8  
(d) 428.4 (e) None of these
7.  $20.06\%$  of 599 +  $10.01\%$  of 901 = ?  
(a) 150 (b) 210 (c) 250  
(d) 280 (e) 300
8.  $14.2\%$  of 5500 +  $15.6\%$  of ? = 1795  
(a) 6500 (b) 6200 (c) 5600  
(d) 5800 (e) None of these
9.  $36\%$  of 245 –  $40\%$  of 210 = 10 – ?  
(a) 4.2 (b) 6.8 (c) 4.9  
(d) 5.6 (e) None of these
10.  $\frac{1}{2}$  of 3842 +  $15\%$  of ? = 24499  
(a) 3520 (b) 3250 (c) 3350  
(d) 3540 (e) None of these
11.  $57\%$  of 394 –  $2.5\%$  of 996 = ?  
(a) 215 (b) 175 (c) 200  
(d) 180 (e) 205
12.  $40\%$  of 265 +  $35\%$  of 180 =  $50\%$  of ?  
(a) 338 (b) 84.5 (c) 253.5  
(d) 169 (e) None of these
13.  $4\frac{1}{5} \times 3\frac{1}{3} + ? = 20\%$  of 120  
(a)  $10\frac{1}{15}$  (b) 10 (c) 5  
(d) 15 (e) None of these
14.  $14\%$  of 250 × ?% of 150 = 840  
(a) 15 (b) 18 (c) 16  
(d) 12 (e) None of these
15.  $18\%$  of 609 +  $27.5\%$  of 450 = ?  
(a) 220 (b) 233 (c) 267  
(d) 248 (e) 274
16.  $125\%$  of 3060 –  $85\%$  of ? = 408  
(a) 3890 (b) 3940 (c) 4020  
(d) 4015 (e) None of these
17. If  $x\%$  of 500 =  $y\%$  of 300 and  $x\%$  of  $y\%$  of 200 = 60, then  $x = ?$   
(a)  $10\sqrt{2}$  (b)  $20\sqrt{2}$  (c)  $15\sqrt{2}$   
(d)  $30\sqrt{2}$  (e) None of these
18.  $185\%$  of 400 +  $35\%$  of 240 = ?% of 1648  
(a) 85 (b) 75 (c) 125  
(d) 50 (e) None of these

**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e)  
16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e)

19. Pradeep invested 20% more than Mohit. Mohit invested 10% less than Raghu. If the total sum of their investment is ₹ 17880, how much amount did Raghu invest ?  
 (a) ₹ 6000 (b) ₹ 8000 (c) ₹ 7000  
 (d) ₹ 5000 (e) None of these
20. In a college, 200 students are there in which 36% are girls. Each boy's monthly fees is ₹ 480 and each girl paid 25% less monthly fees in comparison to boy. What is the total monthly fees amount paid by boys and girls ?  
 (a) ₹ 873400 (b) ₹ 867300 (c) ₹ 876300  
 (d) ₹ 873600 (e) None of these
21. Twenty per cent of Anuj's annual salary is equal to seventy five per cent of Raj's annual salary. Raj's monthly salary is 60% of Ravi's monthly salary. If Ravi's annual salary is ₹ 1.44 lakh. What is Anuj's monthly salary ?  
 (a) ₹ 270000 (b) ₹ 27000 (c) ₹ 324000  
 (d) ₹ 5400 (e) None of these
22. In a college 12% of total students are interested in sports.  $\frac{3}{4}$ th of total students are interested in dance. 10% of total students are interested in singing and remaining 15 students are not interested in any activity. How many students are there in the college ?  
 (a) 450 (b) 500  
 (c) 600 (d) Cannot be determined  
 (e) None of these
23. Aman's expense is 30% more than Vimal's expense and Vimal's expense is 10% less than Raman's expense. If the sum of their expenses is ₹ 6447, then what would be the Aman's expense ?  
 (a) ₹ 2200 (b) ₹ 2457 (c) ₹ 1890  
 (d) ₹ 2100 (e) None of these
24. A candidate appearing for an examination has to secure 35% marks to pass. But he secured only 40 marks and failed by 30 marks. What would be the maximum marks of test ?  
 (a) 280 (b) 180 (c) 200  
 (d) 150 (e) 210
25. What is 25% of 50% of  $\frac{2}{3}$ rd of 630 ?  
 (a) 36.5 (b) 52.5 (c) 45.5  
 (d) 68.5 (e) None of these
26. Natasha decided to spend 45% of her salary on shopping. On completion of her shopping, she realised that she had spent only ₹ 11475, which was 60% of what she had decided to spent. How much is Natasha's salary ?  
 (a) ₹ 29600 (b) ₹ 38800  
 (c) ₹ 42500 (d) Cannot be determined  
 (e) None of these
27. The income of A is 150% of the income of B and the income of C is 120% of the income of A. If the total income of A, B and C together is ₹ 86000, what is C's income ?  
 (a) ₹ 30000 (b) ₹ 32000 (c) ₹ 20000  
 (d) ₹ 36000 (e) None of these
28. Mr. Giridhar spends 50% of his monthly income on household items and out of the remaining he spends 50% on transport, 25% on entertainment, 10% on sports and remaining amount of ₹ 900 is saved. What is Mr. Giridhar's monthly income ?  
 (weight in gm)  
 (a) ₹ 6000 (b) ₹ 12000  
 (c) ₹ 9000 (d) Cannot be determined  
 (e) None of these
29. In a mixture of milk and water the proportion of water by weight was 75%. If in the 60 gm mixture, 15 gm water was added, what would be the percentage of water ?  
 (a) 75% (b) 88% (c) 90%  
 (d) 100% (e) None of these
30. The product of one-third of a number and 150% of another number is what per cent of the product of the original numbers?  
 (a) 80% (b) 50%  
 (c) 75% (d) 120%  
 (e) None of these

<b>RESPONSE GRID</b>	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)
	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)
	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)			





**101 SPEED TEST**

**5**

**PERCENTAGE -2**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. The digit at unit place of a two-digit number is increased by 100% and the digit at ten place of the same number is increased by 50%. The new number thus formed is 19 more than the original number. What is the original number ?  
 (a) 22 (b) 63  
 (c) 24 (d) 25  
 (e) None of these
2. In a co-education school there are 15 more girls than boys. If the number of girls is increased by 10% and the number of boys is also increased by 16%, there would be nine more girls than boys. What is the number of students in the school?  
 (a) 240 (b) 225  
 (c) 265 (d) 245  
 (e) None of these
3. A number is increased by 10% and then reduced by 10%. After these operations, the number:  
 (a) does not change (b) decreases by 1%  
 (c) increases by 1% (d) increases by 0.1%  
 (e) None of these
4. The population of a city increases at the rate of 4% per annum. There is an additional annual increase of 1% in the population due to the influx of job seekers. Therefore, the % increase in the population after 2 years will be :  
 (a) 10 (b) 10.25  
 (c) 10.55 (d) 10.75  
 (e) None of these
5. In a factory, producing parts of an automobile, the parts manufactured on the shop floor are required to go through quality checks, each conducted after a specific part of the processing on the raw material is completed. Only parts that are not rejected at one stage are put through subsequent stages of production and testing. If average rejection rates at these three testing stages during a month are 10%, 5% and 2% respectively, then what is the effective rejection rate for the whole plant ?  
 (a) 17% (b) 15.20%  
 (c) 84.80% (d) 16.21%  
 (e) None of these
6. In a class, 40% of the boys is same as  $\frac{1}{2}$  of the girls and there are 20 girls. Total number of students in the class is :  
 (a) 70 (b) 45  
 (c) 35 (d) 25  
 (e) None of these
7. The owner of a boutique decides to calculate the per centage of customers who purchase hats. If 40 per cent of the store's customers decide to purchase items, and of those customers 15 percent purchase hats, then what per cent of the store's customers purchase hats ?  
 (a) 4% (b) 6%  
 (c) 15% (d) 24%  
 (e) None of these
8. In a company, there are 75% skilled workers and remaining ones are unskilled. 80% of skilled workers and 20% of unskilled workers are permanent. If number of temporary workers is 126, then what is the number of total workers ?  
 (a) 480 (b) 510  
 (c) 360 (d) 377  
 (e) None of these
9. There were two candidates in an election. 10% of the voters did not vote. 60 votes were declared invalid. The elected candidate got 308 votes more than his opponent. If the elected candidate got 47% of the total votes, how many votes did each candidate get?  
 (a) 2316 and 2012 (b) 2629 and 2324  
 (c) 2871 and 2575 (d) 2914 and 2606  
 (e) None of these
10. A student scored 30% marks in the first paper of Physics out of 180 marks. He has to get an overall score of at least 50% in two papers. The second paper is carrying 150 marks. The percentage of marks he should score in the second paper to get the overall average score is:  
 (a) 80% (b) 76%  
 (c) 74% (d) 70%  
 (e) None of these
11. The price of petrol is increased by 25%. How much per cent must a car owner reduce his consumption of petrol so as not to increase his expenditure on petrol?  
 (a) 25% (b) 50%  
 (c) 30% (d) 20%  
 (e) None of these
12. In a mathematics exam, a student scored 30% in the first paper out of total of 180. How much should he score in the second paper (out of 150) if he is to get at least 50% marks overall?  
 (a) 75% (b) 80%  
 (c) 74% (d) 84%  
 (e) None of these

**RESPONSE  
GRID**

- |                            |                            |                           |                           |                            |
|----------------------------|----------------------------|---------------------------|---------------------------|----------------------------|
| <b>1.</b> (a)(b)(c)(d)(e)  | <b>2.</b> (a)(b)(c)(d)(e)  | <b>3.</b> (a)(b)(c)(d)(e) | <b>4.</b> (a)(b)(c)(d)(e) | <b>5.</b> (a)(b)(c)(d)(e)  |
| <b>6.</b> (a)(b)(c)(d)(e)  | <b>7.</b> (a)(b)(c)(d)(e)  | <b>8.</b> (a)(b)(c)(d)(e) | <b>9.</b> (a)(b)(c)(d)(e) | <b>10.</b> (a)(b)(c)(d)(e) |
| <b>11.</b> (a)(b)(c)(d)(e) | <b>12.</b> (a)(b)(c)(d)(e) |                           |                           |                            |

13. The total tractor population in a state is 2,94,00 out of which 1,50,00 are made by Mahindra & Mahindra. Out of every 100 Mahindra tractors, 98 are red in colour, but only 5.3% of the total tractor population is red. Find the percentage of non-Mahindra tractors that are red.  
 (a) 5.025% (b) 5.130%  
 (c) 6.125% (d) 6.140%  
 (e) 7.145%
14. 7% of the total quantity of wheat is lost in grinding when a country has to import 6 million tonnes, but when only  $7\frac{3}{4}\%$  is lost, it can import 3 million tonnes. Find the quantity of wheat grown in the country.  
 (a) 500 million tonnes (b) 400 million tonnes  
 (c) 600 million tonnes (d) 700 million tonnes  
 (e) 800 million tonnes
15. A landowner increased the length and breadth of a rectangular plot by 10% and 20% respectively. Find the percentage change in the cost of the plot.  
 (a) 35% (b) 33%  
 (c) 22.22% (d) 32%  
 (e) 38%
16. In an examination, Mohit obtained 20% more than Sushant but 10% less than Rajesh. If the marks obtained by Sushant are 1080, find percentage marks obtained by Rajesh if the full marks are 2000.  
 (a) 72% (b) 86.66%  
 (c) 78.33% (d) 79.33%  
 (e) 81%
17. Out of the total production of iron from hematite, 20% of the ore gets wasted. Out of the remaining iron, only 25 % is pure iron. If the pure iron obtained in a year from a mine of hematite was 80,000 kg, then the quantity of hematite mined in the year is  
 (a) 4,00,000 kg (b) 5,00,000 kg  
 (c) 4,50,000 kg (d) 6,00,000 kg  
 (e) 7,00,000 kg
18. The population of a village is 10,000. If the population increases by 10% in the first year, by 20% in the second year and due to mass exodus, it decreases by 5 % in the third year, what will be its population after 3 years?  
 (a) 13,860 (b) 11,540  
 (c) 12,860 (d) 12,540  
 (e) 13,550
19. In a medical certificate, by mistake a candidate gave his height as 25 % more than actual. In the interview panel, he clarified that his height was 5 feet 5 inches. Find the percentage correction made by the candidate from his stated height to his actual height.  
 (a) 28.56 (b) 20  
 (c) 25 (d) 30  
 (e) 35
20. There are two candidates Bhiku and Mhatre for an election. Bhiku gets 65 % of the total valid votes. If the total votes were 6,000, what is the number of valid votes that the other candidate Mhatre gets if 25 % of the total votes were declared invalid?  
 (a) 1575 (b) 1625  
 (c) 1675 (d) 1525  
 (e) 1700

**DIRECTIONS (Qs. 21-30):** What approximate value should come in place of question mark (?) in the following equation?

21.  $32.05\%$  of  $259.99 = ?$   
 (a) 92 (b) 88  
 (c) 78 (d) 90  
 (e) 83
22.  $4.78\%$  of  $1255 + 3.24\%$  of  $440 = 0.5\%$  of ?  
 (a) 14260 (b) 14492  
 (c) 14636 (d) 14849  
 (e) 15002
23.  $35.05\%$  of  $3365 + 8900 \div 41.99 = ?$   
 (a) 1350 (b) 1390  
 (c) 1430 (d) 1480  
 (e) 1530
24.  $(385\%$  of  $463) \div 179 = ?$   
 (a) 10 (b) 16  
 (c) 24 (d) 30  
 (e) 40
25.  $84.04\%$  of  $1845 + 23.97\%$  of  $178.05 = ?$   
 (a) 1510 (b) 1530  
 (c) 1550 (d) 1570  
 (e) 1590
26.  $25\%$  of  $1078 + 182\%$  of  $668 = ?$   
 (a) 1050 (b) 1125  
 (c) 1250 (d) 1325  
 (e) 1475
27.  $59.98\%$  of  $\left(\frac{1}{13} \times 2920 + \frac{5}{18} \times 2075\right) = ?$   
 (a) 360 (b) 480  
 (c) 520 (d) 660  
 (e) 320
28.  $(23.6\%$  of  $1254) - (16.6\%$  of  $834) = ?$   
 (a) 159.5 (b) 157.5  
 (c) 155.5 (d) 153.5  
 (e) None of these
29.  $137\%$  of  $12345 = ?$   
 (a) 17000 (b) 15000  
 (c) 1500 (d) 14300  
 (e) 900
30.  $22.005\%$  of  $449.999 = ?$   
 (a) 85 (b) 100  
 (c) 125 (d) 75  
 (e) 150

<b>RESPONSE GRID</b>	<b>13.</b> (a) (b) (c) (d) (e)	<b>14.</b> (a) (b) (c) (d) (e)	<b>15.</b> (a) (b) (c) (d) (e)	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)
	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)
	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)	<b>26.</b> (a) (b) (c) (d)	<b>27.</b> (a) (b) (c) (d) (e)
	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)		



**SURDS AND INDICES**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1-30):** What will come in place of question mark (?) in the following questions?

1.  $(4 \times 4)^3 \div (512 \div 8)^4 \times (32 \times 8)^4 = (2 \times 2)^{?+4}$   
 (a) 8 (b) 12 (c) 6  
 (d) 14 (e) None of these
2.  $(0.125)^3 \div (0.25)^2 \times (0.5)^2 = (0.5)^{?-3}$   
 (a) 12 (b) 18 (c) 14  
 (d) 10 (e) None of these
3.  $(16 \times 4)^3 \div (4)^5 \times (2 \times 8)^2 = (4)^?$   
 (a) 5 (b) 6 (c) 3  
 (d) 8 (e) None of these
4.  $(?)^2 \times (12)^2 \div (48)^2 = 81$   
 (a) 26 (b) 32 (c) 9  
 (d) 15 (e) None of these
5.  $(0.064) \times (0.4)^7 = (0.4)^? \times (0.0256)^2$   
 (a) 17 (b) 2 (c) 18  
 (d) 3 (e) None of these
6.  $9^3 \times 81^2 \div 27^3 = (3)^?$   
 (a) 3 (b) 4 (c) 5  
 (d) 6 (e) None of these
7.  $\frac{343 \times 49}{216 \times 16 \times 81} = ?$   
 (a)  $\frac{7^5}{6^7}$  (b)  $\frac{7^5}{6^8}$  (c)  $\frac{7^6}{6^7}$   
 (d)  $\frac{7^4}{6^8}$  (e) None of these

8.  $(\sqrt{9})^3 \times (\sqrt{81})^5 \div (27)^2 = (3)^{(?)}$   
 (a) 5 (b) 4 (c) 7  
 (d) 6 (e) None of these
9.  $8^{1.1} \times 4^{2.7} \times 2^{3.3} = 2^?$   
 (a) 7.1 (b) 14 (c) 0.5  
 (d) 9 (e) None of these
10.  $\frac{16 \times 32}{9 \times 27 \times 81} = ?$   
 (a)  $\left(\frac{2}{3}\right)^{12}$  (b)  $\left(\frac{2}{3}\right)^{11}$  (c)  $\left(\frac{2}{3}\right)^{13}$   
 (d)  $\left(\frac{2}{3}\right)^9$  (e) None of these
11.  $(49)^3 \div (7)^2 = ?$   
 (a) 2401 (b) 49 (c) 343  
 (d) 7 (e) None of these
12.  $64^{3.1} \times 8^{4.3} = 8^?$   
 (a) 10.5 (b) 7.4 (c) 1.2  
 (d) 13.3 (e) None of these
13.  $8^7 \times 2^6 \div 8^{2.4} = 8^?$   
 (a) 10.6 (b) 9.6 (c) 8.6  
 (d) 6.6 (e) None of these
14.  $(27)^{18} \div (27)^3 = ?$   
 (a)  $(27)^{54}$  (b)  $(27)^{21}$  (c)  $(27)^{15}$   
 (d)  $(27)^6$  (e) None of these
15.  $(31)^{31} \times (31)^{-27} = ?$   
 (a)  $(961)^2$  (b) 4 (c)  $(31)^2$   
 (d) 29791 (e) None of these

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16.  $\frac{\{(12)^{-2}\}^2}{\{(12)^2\}^{-2}} = ?$
- (a) 12 (b) 4.8 (c)  $\frac{12}{144}$   
(d) 144 (e) None of these
17.  $81^{2.5} \times 9^{4.5} \div 3^{4.8} = 9^?$
- (a) 3.7 (b) 9.4 (c) 4.7  
(d) 4.5 (e) None of these
18.  $17^{3.5} \times 17^{7.3} \div 17^{4.2} = 17^?$
- (a) 8.4 (b) 8 (c) 6.6  
(d) 6.4 (e) None of these
19.  $6^4 \times 36^2 \div 216 = 6^{(?)}$
- (a) 3 (b) 4 (c) 5  
(d) 6 (e) None of these
20.  $25^{2.7} \times 5^{4.2} \div 5^{5.4} = (?)$
- (a) 1.7 (b) 3.2 (c) 1.6  
(d) 3.6 (e) None of these
21.  $(\sqrt{8})^6 \times (64)^3 \div 8^4 = (8)^?$
- (a) 3 (b) 4 (c) 5  
(d) 7 (e) None of these
22.  $(3)^{3.5} \times (9)^{2.2} \div 27 = (3)^?$
- (a) 3.7 (b) 4.6 (c) 5.9  
(d) 4.9 (e) None of these
23.  $(0.04)^2 \div (0.008) \times (0.2)^6 = (0.2)^?$
- (a) 6 (b) 5 (c) 8  
(d) 9 (e) None of these
24.  $64 \times 16 \div 256 = (4)^{(?-3)}$
- (a) 1 (b) 4 (c) 5  
(d) 3 (e) None of these
25.  $(5)^2 \times (25)^3 \times 125 = (5)^?$
- (a) 9 (b) 7 (c) 8  
(d) 11 (e) None of these
26.  $(6)^4 \div (36)^3 \times 216 = 6^{(?-5)}$
- (a) 4 (b) 6 (c) 7  
(d) 1 (e) None of these
27.  $(5)^{(3.5)} \times (5)^{(4.8)} \times (5)^{(2.4)} \div (5)^{(?)} = (5)^{(5.1)}$
- (a) 5.4 (b) 5.2 (c) 5.6  
(d) 5.5 (e) None of these
28.  $5^2 \times 25^3 \times 625 = (5)^?$
- (a) 11 (b) 10 (c) 13  
(d) 12 (e) None of these
29.  $(7)^3 \div (49)^2 \times 343 = 7^{(?-2)}$
- (a) 2 (b) 4 (c) 3  
(d) 5 (e) None of these
30.  $9^{3.5} \times 3^{2.2} \div 9^{(?)} = 9^{1.4}$
- (a) 3.1 (b) 6.4 (c) 3.2  
(d) 4.6 (e) None of these

**RESPONSE  
GRID**

16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e)  
21. (a)(b)(c)(d)(e) 22. (a)(b)(c)(d)(e) 23. (a)(b)(c)(d)(e) 24. (a)(b)(c)(d)(e) 25. (a)(b)(c)(d)(e)  
26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)



**SIMPLIFICATION**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Qs. 1 to 28) :** What will come in place of questions mark (?) in the following questions?

1.  $19.99 \times 9.9 + 99.9 = ?$   
 (a) 129.79 (b) 297.801  
 (c) 1009 (d) 296.91  
 (e) None of these
2.  $99 \times 21 - \sqrt[3]{7} = 1968$   
 (a) 1367631 (b) 111  
 (c) 366731 (d) 1367  
 (e) None of these
3.  $\frac{2}{7} \times \frac{5}{6} \times \frac{3}{8} \times ? = 790$   
 (a) 8848 (b) 8246  
 (c) 8484 (d) 8868  
 (e) None of these
4.  $(41)^2 + (38)^2 \times (0.15)^2 = ?$   
 (a) 3125.0225 (b) 1713.49  
 (c) 3125.15 (d) 59204.0225  
 (e) None of these
5.  $\sqrt{100000} = ?$   
 (a) 260 (b) 277  
 (c) 284 (d) 300  
 (e) 316
6.  $456.675 + 35.7683 \times 67.909 - 58.876 = ?$   
 (a) 33382 (b) 3587  
 (c) 1540 (d) 2756  
 (e) 2830
7.  $(7684 + 5454 + 9041) \div (601 + 296 + 557) = ?$   
 (a) 24 (b) 15  
 (c) 33 (d) 9  
 (e) 41
8.  $\{(52)^2 + (45)^2\} \div ? = 8$   
 (a) 611.345 (b) 487.225  
 (c) 591.125 (d) 372.425  
 (e) None of these
9.  $(64)^4 \div (8)^5 = ?$   
 (a)  $(8)^{12}$  (b)  $(8)^8$   
 (c)  $(8)^4$  (d)  $(8)^2$   
 (e) None of these
10.  $(12.25)^2 - \sqrt{625} = ?$   
 (a) 235.1625 (b) 125.0625  
 (c) 375.2625 (d) 465.3625  
 (e) None of these
11.  $383 \times 38 \times 3.8 = ?$   
 (a) 58305.8 (b) 57305.6  
 (c) 56305.4 (d) 55305.2  
 (e) None of these
12.  $43.231 - 12.779 - 6.542 - 0.669 = ?$   
 (a) 27.341 (b) 25.242  
 (c) 23.241 (d) 21.342  
 (e) None of these
13.  $572 + 38 \times 0.50 - 16 = ?$   
 (a) 289 (b) 305  
 (c) 448 (d) 565  
 (e) None of these
14.  $6269 + 0.75 \times 444 + 0.8 \times 185 = ? \times 15$   
 (a) 448 (b) 450  
 (c) 452 (d) 454  
 (e) 455
15.  $\frac{3}{7} \times \frac{2}{5} \times \frac{11}{13} \times ? = 1056$   
 (a) 7280 (b) 7296  
 (c) 7308 (d) 7316  
 (e) 7324

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16.  $6138 + \sqrt[3]{17576} = \sqrt{?} \times 9$   
 (a) 676 (b) 729  
 (c) 784 (d) 841  
 (e) 961
17.  $(27)^{7.5} \times (729)^{1.75} \div (19683)^{-2} \div \frac{1}{(19683)^{-5}} = (27)^?$   
 (a) 2 (b) 5  
 (c) 7 (d) 9  
 (e) 15
18.  $\sqrt{31329} \times 5 = ?$   
 (a) 855 (b) 865  
 (c) 875 (d) 885  
 (e) 895
19.  $(78700 \div 1748) + (3.79 \times 121.24) = ?$   
 (a) 305 (b) 415  
 (c) 525 (d) 635  
 (e) 745
20.  $\sqrt{6080} \div \sqrt[3]{74000} + \sqrt[4]{6560} = ?$   
 (a) 30 (b) 80  
 (c) 130 (d) 170  
 (e) 210
21.  $\frac{1}{8}$  of  $\frac{2}{3}$  of  $\frac{3}{5}$  of 1715 = ?  
 (a) 80 (b) 85  
 (c) 90 (d) 95  
 (e) 75
22.  $25.05 \times 123.95 + 388.999 \times 15.001 = ?$   
 (a) 900 (b) 8950  
 (c) 8935 (d) 8975  
 (e) 8995
23.  $561 \div 35.05 \times 19.99 = ?$   
 (a) 320 (b) 330  
 (c) 315 (d) 325  
 (e) 335
24.  $(15.01)^2 \times \sqrt{730} = ?$   
 (a) 6125 (b) 6225  
 (c) 6200 (d) 6075  
 (e) 6250
25.  $4895 + 364 \times 0.75 - 49 = ?$   
 (a) 5119 (b) 3895  
 (c) 3907 (d) 5210  
 (e) None of these
26.  $434.43 + 43.34 + 3.44 + 4 + 0.33 = ?$   
 (a) 421.45 (b) 455.54  
 (c) 485.54 (d) 447.45  
 (e) None of these
27.  $(23.6\% \text{ of } 1254) - (16.6\% \text{ of } 834) = ?$   
 (a) 159.5 (b) 157.5  
 (c) 155.5 (d) 153.5  
 (e) None of these
28.  $(78.95)^2 - (43.35)^2 = ?$   
 (a) 4353.88 (b) 4305  
 (c) 4235.78 (d) 4148  
 (e) None of these

**DIRECTIONS (Qs.29-30):** What approximate value should come in place of the question mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)

29.  $9999 \div 99 \div 9 = ?$   
 (a) 18 (b) 15  
 (c) 6 (d) 11  
 (e) 20
30.  $23.001 \times 18.999 \times 7.998 = ?$   
 (a) 4200 (b) 3000  
 (c) 3500 (d) 4000  
 (e) 2500

<b>RESPONSE GRID</b>	<b>16.</b> (a)(b)(c)(d)(e) <b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e)
	<b>21.</b> (a)(b)(c)(d)(e) <b>22.</b> (a)(b)(c)(d)(e) <b>23.</b> (a)(b)(c)(d)(e) <b>24.</b> (a)(b)(c)(d)(e) <b>25.</b> (a)(b)(c)(d)(e)
	<b>26.</b> (a)(b)(c)(d)(e) <b>27.</b> (a)(b)(c)(d)(e) <b>28.</b> (a)(b)(c)(d)(e) <b>29.</b> (a)(b)(c)(d)(e) <b>30.</b> (a)(b)(c)(d)(e)



## 101 SPEED TEST

## 8

## AVERAGE

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- The average age of 80 boys in a class is 15. The average age of a group of 15 boys in the class is 16 and the average age of another 25 boys in the class is 14. What is the average age of the remaining boys in the class ?  
(a) 15.25 (b) 14  
(c) 14.75 (d) Cannot be determined  
(e) None of these
- In a class, the average height of 35 girls was measured 160 cm. Later on, it was discovered that the height of one of the girl was misread as 144 cm, while her actual height was 104 cm. What was the actual average height of girls in the class ? (rounded off to two digits after decimal)  
(a) 159.86 cm (b) 158.54 cm (c) 159.56 cm  
(d) 158.74 cm (e) None of these
- The average age of the family of five members is 24. If the present age of youngest member is 8 yr, then what was the average age of the family at the time of the birth of the youngest member ?  
(a) 20 yr (b) 16 yr (c) 12 yr  
(d) 18 yr (e) 21 yr
- The average of four consecutive odd numbers is 36. What is the smallest of these numbers ?  
(a) 31 (b) 35 (c) 43  
(d) 47 (e) None of these
- In a class, there are 32 boys and 28 girls. The average age of the boys in the class is 14 yr and the average age of the girls in the class is 13 yr. What is the average age of the whole class ? (Rounded off to two digits after decimal)  
(a) 13.50 (b) 13.53 (c) 12.51  
(d) 13.42 (e) None of these
- The sum of five numbers is 924. The average of first two numbers is 201.5 and the average of last two number is 196. What is the third number ?  
(a) 133 (b) 129  
(c) 122 (d) Cannot be determined  
(e) None of these
- The average marks of 65 students in a class was calculated as 150. It was later realised that the marks of one of the students was calculated as 142, whereas his actual marks were 152. What is the actual average marks of the group of 65 students ? (Rounded off to two digits after decimal)  
(a) 151.25 (b) 150.15 (c) 151.10  
(d) 150.19 (e) None of these
- The total of the ages of a class of 75 girls is 1050, the average age of 25 of them is 12 yr and that of another 25 is 16 yr. Find the average age of the remaining girls.  
(a) 12 yr (b) 13 yr (c) 14 yr  
(d) 15 yr (e) None of these
- Average score of Rahul, Manish and Suresh is 63. Rahul's score is 15 less than Ajay and 10 more than Manish. If Ajay scored 30 marks more than the average scores of Rahul, Manish and Suresh, what is the sum of Manish's and Suresh's scores ?  
(a) 120 (b) 111  
(c) 117 (d) Cannot be determined  
(e) None of these
- The average weight of 45 students in a class was calculated as 36 kg. It was later found that the weight of two students in the class was wrongly calculated. The actual weight of one of the boys in the class was 32 kg, but it was calculated as 34 kg, and the weight of another boy in the class was 45 kg, whereas it was calculated as boy in the class was 45 kg, whereas it was calculated as 40 kg. What is the actual average weight of the 45 students in the class ? (Rounded off to two-digits after decimal)  
(a) 36.07 kg (b) 36.16 kg  
(c) 35.84 kg (d) Cannot be determined  
(e) None of these
- The respective ratio between the speeds of a car, a train and a bus is 5 : 9 : 4. The average speed of the car, the bus and the train is 72 km/h together. What is the average speed of the car and the train together ?  
(a) 82 km/h (b) 78 km/h  
(c) 84 km/h (d) Cannot be determined  
(e) None of these
- The total marks obtained by a student in physics, Chemistry and Mathematics together is 120 more than the marks obtained by him in Chemistry. What are the average marks obtained by him in Physics and Mathematics together ?  
(a) 60 (b) 120  
(c) 40 (d) Cannot be determined  
(e) None of these

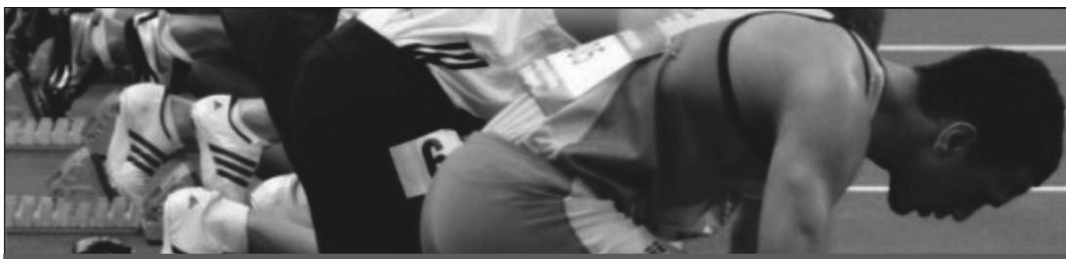
**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e)

13. The average marks in Science subject of a class of 20 students is 68. If the marks of two students were misread as 48 and 65 of the actual marks 72 and 61 respectively, then what would be the correct average ?  
(a) 68.5 (b) 69 (c) 69.5  
(d) 70 (e) 66
14. The average age of seven boys sitting in a row facing North is 26 yr. If the average age of first three boys is 19 yr and the average age of last three boys is 32 yr. What is the age of the boy who is sitting in middle of the row ?  
(a) 28 yr (b) 29 yr (c) 24 yr  
(d) 31 yr (e) None of these
15. In an exam, the average was found to be 50 marks. After deducting computational errors the marks of the 100 candidates had to be changed from 90 to 60 each and the average came down to 45 marks. The total number of candidates who took the exam were  
(a) 300 (b) 600 (c) 200  
(d) 150 (e) None of these
16. The average age of a group of 16 persons is 28 yrs and 3 months. Two persons each 58 yrs old left the group. The average age of the remaining persons is  
(a) 26 (b) 24 (c) 22  
(d) 20 (e) None of these
17. The average weight of 50 balls is 5 gm. If the weight of the bag be included the average weight increases by 0.05 gm. What is the weight of the bag?  
(a) 5.05 (b) 6.05 (c) 7.05  
(d) 7.55 (e) None of these
18. The average age of a group of 10 students is 15 yrs. When 5 more students joined the group the average age rose by 1 yr. The average age (in years) of the new students is  
(a) 18 yrs (b) 17 yrs (c) 16 yrs  
(d) 12 yrs (e) None of these
19. The average weight of 8 persons is increased by 2.5 kg when one of them who weighs 56 kg is replaced by a new man. The weight of the new man is  
(a) 73 kg (b) 72 kg (c) 75 kg  
(d) 80 kg (e) None of these
20. The average weight of A, B and C is 84 kg. If D joins the group, the average weight of the group becomes 80 kg. If another man E who weighs 3 kg more than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A?  
(a) 64 kg (b) 72 kg (c) 75 kg  
(d) 80 kg (e) None of these
21. The average of 11 results is 50. If the average of first 6 results is 49 and that of last 6 is 52, find the 6th result.  
(a) 50 (b) 52 (c) 56  
(d) 60 (e) None of these
22. A man drives to his office at 60 km/hr and returns home along the same route 30 km/hr. Find the average speed.  
(a) 50 km/hr (b) 45 km/hr (c) 40 km/hr  
(d) 55 km/hr (e) None of these
23. Find the average of five consecutive even numbers a, b, c, d and e.  
(a) d (b) b (c) c  
(d) a (e) None of these
24. A cricketer has completed 10 innings and his average is 21.5 runs. How many runs must he make in his next innings so as to raise his average to 24?  
(a) 69 (b) 59 (c) 49  
(d) 39 (e) None of these
25. A person divides his total route of journey into three equal parts and decides to travel the three parts with speeds of 40, 30 and 15 km/hr respectively. Find his average speed during the whole journey.  
(a) 14 km/hr (b) 24 km/hr (c) 34 km/hr  
(d) 44 km/hr (e) None of these
26. One-third of a certain journey is covered at the rate of 25 km/hr, one-fourth at the rate of 30 km/hr and the rest at 50 km/hr. Find the average speed for the whole journey.  
(a)  $33\frac{1}{3}$  km/hr (b)  $44\frac{1}{4}$  km/hr (c)  $33\frac{1}{5}$  km/hr  
(d)  $44\frac{1}{5}$  km/hr (e) None of these
27. The average salary of all the workers in a workshop is ₹ 8,000. The average salary of 7 technicians is ₹ 12,000 and the average salary of the rest is Rs 6,000. The total number of workers in the workshop is :  
(a) 21 (b) 20 (c) 23  
(d) 22 (e) None of these
28. The mean monthly salary paid to 75 workers in a factory is ₹ 5,680. The mean salary of 25 of them is ₹ 5,400 and that of 30 others is ₹ 5,700. The mean salary of the remaining workers is  
(a) ₹ 5,000 (b) ₹ 7,000 (c) ₹ 6,000  
(d) ₹ 8,000 (e) None of these
29. The average monthly expenditure of a family was ₹ 2200 during the first 3 months; ₹ 2250 during the next 4 months and ₹ 3120 during the last 5 months of a year. If the total saving during the year were ₹ 1260, then the average monthly income was  
(a) ₹ 2605 (b) ₹ 2805 (c) ₹ 2705  
(d) ₹ 2905 (e) None of these
30. The average age of a family of five members is 24. If the present age of the youngest member is 8 years, what was the average age of the family at the time of the birth of the youngest member?  
(a) 20 years (b) 16 years (c) 12 years  
(d) 18 years (e) 21 years

<b>RESPONSE GRID</b>	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)
	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)
	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)	<b>26.</b> (a)(b)(c)(d)	<b>27.</b> (a)(b)(c)(d)(e)
	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)	<b>30.</b> (a)(b)(c)(d)(e)		





**RATIO & PROPORTION - 1**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. The total number of students in a school is 819. If the number of girls in the school is 364, then what is the respective ratio of the total number of boys to the total number of girls in the school ?  
 (a) 26 : 25                      (b) 21 : 17                      (c) 18 : 13  
 (d) 5 : 4                              (e) None of these
2. If a dividend of ₹ 57,834 is to be divided among Meena, Urmila and Vaishali in the proportion of 3:2:1, find Urmila's share.  
 (a) ₹19,281                      (b) ₹17,350                      (c) ₹23,133  
 (d) ₹19,278                      (e) None of these
3. A sum of money is to be divided among Z, X, Y in the respective proportion of 4:5:6 and another sum to be divided between A and B equally. If Z got ₹ 2000 less than A, how much did X get?  
 (a) ₹ 10,000                      (b) ₹ 5,000  
 (c) ₹ 4,000                      (d) Cannot be determined  
 (e) None of these
4. The total number of boys in a school are 16% more than the total number of girls in the school. What is the ratio of the total number of boys to the total number of girls in the school ?  
 (a) 25:21                      (b) 29:35  
 (c) 25:29                      (d) Cannot be determined  
 (e) None of these
5. Ratio of the earning of A and B is 4:7 respectively. If the earnings of A increase by 50% and the earnings of B decrease by 25% the new ratio of their earnings becomes 8:7 respectively. What are A's earnings?  
 (a) ₹26,000                      (b) ₹28,000                      (c) ₹21,000  
 (d) Data inadequate                      (e) None of these
6. Rinku and Pooja started a business initially with ₹ 5,100 and ₹ 6,600 respectively. If the total profit is ₹ 2,730 what is Rinku's share in the profit ?  
 (a) ₹1,530                      (b) ₹1,540                      (c) ₹1,200  
 (d) ₹1,180                      (e) None of these
7. The total number of boys in a school is 15% more than the total number of girls in the school. What is the ratio of the total number of boys to the total number of girls in the school?  
 (a) 17 : 23                      (b) 24 : 11                      (c) 23 : 20  
 (d) 11 : 24                      (e) None of these
8. A and B started a business by investing ₹ 35,000 and ₹ 20,000 respectively. B left the business after 5 months and C joined the business with a sum of ₹ 15,000. The profit earned at the end of the year is ₹ 84,125. What is B's share of profit?  
 (a) ₹14133                      (b) ₹15,000  
 (c) ₹13,460                      (d) Cannot be determined  
 (e) None of these
9. Ninad, Vikas and Manav enter into a partnership. Ninad invests some amount at the beginning. Vikas invests double the amount after 6 months and Manav invests thrice the amount invested by Ninad after 8 months. They earn a profit of ₹45,000 at the end of the year. What is Manav's share in the profit?  
 (a) ₹25,000                      (b) ₹15,000                      (c) ₹12,000  
 (d) ₹9,000                      (e) None of these
10. In a college the students in Arts and Commerce faculties were in the ratio of 4 : 5 respectively. When 65 more students joined Commerce faculty the ratio became 8 : 11. How many students are there in Arts faculty?  
 (a) 520                      (b) 650  
 (c) 715                      (d) Cannot be determined  
 (e) None of these
11. Sarita started a boutique investing an amount of ₹ 50,000. Six months later Neeta joined her with an amount of ₹ 80,000. At the end of one year they earned a profit of ₹ 18,000. What is Sarita's share in the profit?  
 (a) ₹ 9,000                      (b) ₹ 8,000                      (c) ₹ 12,000  
 (d) ₹ 10,000                      (e) None of these
12. If  $\frac{1}{2}$  of Sunit's salary is equal to  $\frac{2}{5}$  of Rajan's salary and their total salary is ₹ 36,000, find Rajan's salary.  
 (a) ₹16,000                      (b) ₹20,000                      (c) ₹22,000  
 (d) ₹14,000                      (e) None of these

<b>RESPONSE GRID</b>	1. (a)(b)(c)(d)(e)	2. (a)(b)(c)(d)(e)	3. (a)(b)(c)(d)(e)	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)
	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)			

13. Which number should replace both the question marks in the following equation?  
 $\frac{?}{84} = \frac{189}{?}$   
 (a) 126 (b) 124 (c) 130  
 (d) 132 (e) 136
14. The largest and the second largest angles of a triangle are in the ratio of 13 : 12. The smallest angle is 20% of the sum of the largest and the second largest angles. What is the sum of the smallest and the second largest angles ?  
 (a) 120° (b) 108° (c) 100°  
 (d) 102° (e) None of these
15. Mr. Pandit owned 950 gold coins all of which he distributed amongst his three daughters Lalita, Amita and Neeta. Lalita gave 25 gold coins to her husband, Amita donated 15 gold coins and Neeta made jewellery out of 30 gold coins. The new respective ratio of the coins left with them was 20 : 73 : 83. How many gold coins did Amita receive from Mr. Pandit?  
 (a) 380 (b) 415 (c) 400  
 (d) 350 (e) None of these
16. The ratio of the money with Rita and Sita is 7 : 15 and that with Sita and Kavita is 7 : 16. If Rita has ₹ 490, how much money does Kavita have?  
 (a) 1050 (b) 2200 (c) 2400  
 (d) 2800 (e) None of these
17. If A : B = 3 : 4, B : C = 8 : 10 and C : D = 15 : 17. Then find A : B : C : D.  
 (a) 9 : 12 : 13 : 11 (b) 4 : 5 : 6 : 7 (c) 7 : 6 : 11 : 19  
 (d) 9 : 12 : 15 : 17 (e) None of these
18. A hound pursues a hare and takes 5 leaps for every 6 leaps of the hare, but 4 leaps of the hound are equal to 5 leaps of the hare. Compare the rates of the hound and the hare.  
 (a) 5 : 6 (b) 4 : 5 (c) 25 : 24  
 (d) 24 : 25 (e) None of these
19. If a carton containing a dozen mirrors is dropped, which of the following cannot be the ratio of broken mirrors to unbroken mirrors?  
 (a) 2 : 1 (b) 3 : 1 (c) 3 : 2  
 (d) 1 : 1 (e) 7 : 5
20. If (a + b) : (b + c) : (c + a) = 6 : 7 : 8 and a + b + c = 14, then find a : b : c and the value of a, b and c.  
 (a) 1 : 2 : 3 (b) 6 : 7 : 9 (c) 3 : 4 : 8  
 (d) 7 : 5 : 9 (e) None of these
21. Seats for Mathematics, Physics and Biology in a school are in the ratio 5 : 7 : 8. There is a proposal to increase these seats by 40%, 50%, and 75 respectively. What will be the ratio of increased seats?  
 (a) 2 : 3 : 4 (b) 6 : 7 : 8 (c) 6 : 8 : 9  
 (d) None of these
22. The ratio of the number of boys and girls in a college is 7 : 8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, what will be the new ratio?  
 (a) 8 : 9 (b) 17 : 18  
 (c) 21 : 22 (d) Cannot be determined
23. A sum of money is to be distributed among A, B, C, D in the proportion of 5 : 2 : 4 : 3. If C gets Rs. 1000 more than D, what is B's share?  
 (a) Rs. 500 (b) Rs. 1500 (c) Rs. 2000  
 (d) None of these
24. The electricity bill of a certain establishment is partly fixed and partly varies as the number of units of electricity consumed. When in a certain month 540 units are consumed, the bill is Rs. 1800. In another month 620 units are consumed and the bill is Rs. 2040. In yet another month 500 units are consumed. The bill for that month would be:  
 (a) Rs. 1560 (b) Rs. 1680 (c) Rs. 1840  
 (d) Rs. 4400 (e) None of these
25. What is the ratio whose terms differ by 40 and the measure of which is  $\frac{2}{7}$ ?  
 (a) 16 : 56 (b) 14 : 56 (c) 15 : 56  
 (d) 16 : 72 (e) None of these
26. Railway fares of 1st, 2nd and 3rd classes between two stations were in the ratio of 8 : 6 : 3. The fares of 1st and 2nd class were subsequently reduced by 1/6 and 1/12, respectively. If during a year, the ratio between the passengers of 1st, 2nd and 3rd classes was 9 : 12 : 26 and total amount collected by the sale of tickets was Rs 1088, then find the collection from the passengers of 1st, class.  
 (a) Rs 260 (b) Rs 280 (c) Rs 300  
 (d) Rs 320 (e) None of these
27. In two alloys, the ratio of iron and copper is 4 : 3 and 6 : 1, respectively. If 14 kg of the first alloy and 42 kg of the second alloy is mixed together to form a new alloy, then what will be the ratio of iron to copper in the new alloy ?  
 (a) 11 : 3 (b) 11 : 8 (c) 8 : 1  
 (d) None of these
28. The ratio of the amount for two years under CI annually and for one year under SI is 6 : 5. When the ratio of interest is same, then the value of the rate of interest is :  
 (a) 12.5% (b) 18% (c) 20%  
 (d) 16.66% (e) None of these
29. In an engineering college the average salary of all engineering graduates from Mechanical trade is Rs. 2.45 lacs per annum and that of the engineering graduates from Electronics trade is Rs. 3.56 lacs per annum. The average salary of all Mechanical and Electronics graduates is Rs. 3.12 lacs per annum. Find the least number of Electronics graduates passing out from this institute.  
 (a) 43 (b) 59  
 (c) 67 (d) Cannot be determined
30. Fresh grapes contain 80 per cent water while dry grapes contain 10 per cent water. If the weight of dry grapes is 250 kg then what was its total weight when it was fresh ?  
 (a) 1000 kg (b) 1125 kg (c) 1225 kg  
 (d) 1100 kg (e) None of these

<b>RESPONSE GRID</b>	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)
	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)
	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)	<b>26.</b> (a)(b)(c)(d)	<b>27.</b> (a)(b)(c)(d)(e)
	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)	<b>30.</b> (a)(b)(c)(d)(e)		

## RATIO &amp; PROPORTION - 2

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- The incomes of A and B are in the ratio 3 : 2 and their expenditures are in the ratio 5 : 3. If each saves ₹ 2000, what is their income?
  - 10000, 6000
  - 12000, 8000
  - 15000, 10000
  - 18000, 12000
  - None of these
- Find a fractions which shall bear the same ratio to  $\frac{1}{27}$  that  $\frac{3}{11}$  does to  $\frac{5}{9}$ .
  - 1 : 27
  - 1 : 45
  - 1 : 55
  - 1 : 65
  - None of these
- An employer reduces the number of his employees in the ratio 9 : 8 and increases their wages in the ratio 14 : 15. State whether his bill of total wages increases or decreases, and in what ratio.
  - 21 : 20
  - 31 : 20
  - 22 : 31
  - 31 : 22
  - None of these
- ₹ 50 is divided among 6 men, 12 women and 17 boys so that 2 men get as much as 5 boys and 2 women as much as 3 boys. Find the share of a boy.
  - ₹ 1
  - ₹ 10
  - ₹ 5
  - ₹ 11
  - None of these
- A, B and C enter into partnership. A advances one-fourth of the capital for one-fourth of the time. B contributes one-fifth of the capital for half of the time. C contributes the remaining capital for the whole time. How should they divide a profit of ₹ 1140?
  - 100, 160, 880
  - 160, 100, 280
  - 200, 260, 680
  - 160, 200, 780
  - None of these
- A began a business with ₹ 450 and was joined afterwards by B with ₹ 300. When did B join if the profits at the end of the year were divided in the ratio 2 : 1 ?
  - 2 months
  - 3 months
  - 4 months
  - 9 months
  - None of these
- A and B rent a pasture for 10 months. A puts in 100 cows for 8 months. How many cows can B put in for the remaining 2 months, if he pays half as much as A?
  - 300
  - 600
  - 800
  - 1000
  - None of these
- A, B and C are partners. A receives  $\frac{2}{5}$  of the profit and B and C share the remaining profit equally. A's income is increased by ₹ 220 when the profit rises from 8% to 10%. Find the capitals invested by A, B and C.
  - 8000, 7250, 7250
  - 9000, 7250, 7250
  - 10000, 8250, 8250
  - 11000, 8250, 8250
  - None of these
- Shri Ramlal distributed his savings among his wife, two sons and one daughter in such a way that wife gets double of what each son gets and each son gets double of what the daughter gets. If the amount received by each son is Rs. 48,000, what was the total amount distributed by Shri Ramlal?
  - Rs. 92,000
  - Rs. 2,20,000
  - Rs. 1,80,000
  - Rs. 2,12,000
  - None of these
- What will come in place of both the question marks (?) in the following questions?
 
$$\frac{(?)^{1/2}}{42} = \frac{5}{(?)^{1/3}}$$
  - 20
  - 210
  - $10\sqrt{2}$
  - 10
  - $\sqrt{20}$
- The ratio of the number of boys to the number of girls studying in a school is 25 : 29. The total number of students studying in the school is 270. If 15 boys and 15 girls take admission in the school, what will be the new ratio of the boys and girls studying in the school?
  - 6 : 7
  - 8 : 9
  - 7 : 8
  - 7 : 9
  - None of these
- There are two numbers such that the sum of twice the first number and thrice the second number is 141 and the sum of thrice the first number and twice the second number is 174. Which is the larger number?
  - 52
  - 36
  - 48
  - 24
  - None of these

RESPONSE  
GRID

- |               |               |              |              |               |
|---------------|---------------|--------------|--------------|---------------|
| 1. a b c d e  | 2. a b c d e  | 3. a b c d e | 4. a b c d e | 5. a b c d e  |
| 6. a b c d e  | 7. a b c d e  | 8. a b c d e | 9. a b c d e | 10. a b c d e |
| 11. a b c d e | 12. a b c d e |              |              |               |

13. Mr. Shrimat inherits 2505 gold coins and divides them amongst his 3 sons – Bharat, Parat and Marat – in a certain ratio. Out of the total coins received by each of them, Bharat sells 30 coins, Parat donates his 30 coins and Marat loses 25 coins. Now the ratio of gold coins with them is 46 : 4 : 34 respectively. How many coins did Parat receive from his father?  
 (a) 705 (b) 950 (c) 800  
 (d) 850 (e) None of these
14. The cost of 11 kgs of Sugar is ₹ 264. The cost of 14 kgs of tea is ₹ 252 and the cost of 17 litres of milk is ₹ 544. What is the total cost of 24 kgs of sugar, 21 kgs of tea and 25 litres of milk?  
 (a) ₹ 1,745 (b) ₹ 1,800 (c) ₹ 1,825  
 (d) ₹ 1,764 (e) None of these
15. Populations of two villages X and Y are in the ratio of 5 : 7 respectively. If the population of village Y increases by 25000 and the population of village X remains unchanged the respective ratio of their populations becomes 25 : 36. What is the population of village X?  
 (a) 6,25,000 (b) 6,75,000 (c) 8,75,000  
 (d) 9,00,000 (e) None of these
16. Number of students studying in colleges A and B are in the ratio of 3 : 4 respectively. If 50 more students join college A and there is no change in the number of students in College B, the respective ratio becomes 5 : 6. What is the number of students in College B?  
 (a) 450 (b) 500 (c) 400  
 (d) 600 (e) None of these
17. If  $\frac{a}{3} = \frac{b}{4} = \frac{c}{7}$ , then  $\frac{a+b+c}{c}$  is equal to:  
 (a) 7 (b) 2 (c)  $\frac{1}{2}$   
 (d)  $\frac{1}{7}$  (e) None of these
18. If  $(4x^2 - 3y^2) : (2x^2 + 5y^2) = 12 : 19$ , then  $(x : y)$  is:  
 (a) 2 : 3 (b) 1 : 2 (c) 3 : 2  
 (d) 2 : 1
19. If  $x^2 + 4y^2 = 4xy$ , then  $x : y$  is  
 (a) 2 : 1 (b) 1 : 2 (c) 1 : 1  
 (d) 1 : 4 (e) None of these
20. If  $A : B : C = 2 : 3 : 4$ , then  $\frac{A}{B} : \frac{B}{C} : \frac{C}{A}$  is equal to  
 (a) 4 : 9 : 16 (b) 8 : 9 : 12 (c) 8 : 9 : 16  
 (d) 8 : 9 : 24 (e) None of these
21. A sum of Rs. 1300 is divided amongst P, Q, R and S such that  

$$\frac{P's\ share}{Q's\ share} = \frac{Q's\ share}{R's\ share} = \frac{R's\ share}{S's\ share} = \frac{2}{3}$$
 Then, P's share is:  
 (a) ₹ 140 (b) ₹ 160 (c) ₹ 240  
 (d) ₹ 320 (e) None of these
22. 20 litres of a mixture contains milk and water in the ratio 5 : 3. If 4 litres of this mixture be replaced by 4 litres of milk, the ratio of milk to water in the new mixture would be:  
 (a) 2 : 1 (b) 7 : 3 (c) 8 : 5  
 (d) 4 : 3 (e) None of these
23. Three containers have their volumes in the ratio 3 : 4 : 5. They are full of mixture of milk and water. The mixtures contain milk and water in the ratio of (4 : 1), (3 : 1) and (5 : 2) respectively. The contents of all these three containers are poured into a fourth container. The ratio of milk and water in the fourth container is  
 (a) 4 : 1 (b) 151 : 48 (c) 157 : 53  
 (d) 5 : 2 (e) None of these
24. The ratio of third proportional to 12 and 30 and the mean proportional between 9 and 25 is  
 (a) 2 : 1 (b) 5 : 1 (c) 7 : 15  
 (d) 9 : 14 (e) None of these
25. The compound ratio of (2 : 3), (6, 11) and (11 : 2) is:  
 (a) 1 : 2 (b) 2 : 1 (c) 11 : 24  
 (d) 36 : 121 (e) None of these
26. The sides of a triangle are in the ratio  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$  and its perimeter is 104 cm. The length of the longest side is:  
 (a) 52 cm (b) 48 cm (c) 32 cm  
 (d) 26 cm (e) None of these
27. The ratio of three numbers A, B and C is 6 : 8 : 15. If A, B and C are increased by 300%, 275% and 100% respectively, what will be the new ratio of A, B and C?  
 (a) 5 : 4 : 5 (b) 4 : 5 : 5 (c) 5 : 4 : 4  
 (d) 3 : 4 : 5 (e) 3 : 4 : 15
28. X started a business by investing ₹ 120000. 1.5 years later, Y joined the business by investing ₹ 150000, and 3.5 years later, a third person Z joined the business by investing ₹ 280000. At the end of 6.5 years, they earned a profit of ₹ 108941. What is the difference between Z's share and X's share in the profit?  
 (a) ₹ 1379 (b) ₹ 2758 (c) ₹ 4137  
 (d) ₹ 5516 (e) ₹ 6895
29. The ratio of two numbers is 4 : 7. If each of these numbers increases by 30, their ratio will become 5 : 8. What is the average of these two numbers?  
 (a) 135 (b) 145 (c) 155  
 (d) 165 (e) 175
30. Shalini and Nalini invested ₹ 80,000 each and started a business. After one year Shalini invests an additional amount of ₹ 20,000 and Nalini withdraws ₹ 30,000. At the end of two years they earn a profit of ₹ 93,000. What will be Nalini's share in the profit?  
 (a) ₹ 39,000 (b) ₹ 54,000 (c) ₹ 52,000  
 (d) ₹ 36,000 (e) None of these
31. Salary of Mr. X is 80% of the salary of Mr. Y, and the salary of Mr. Z is 120% of the salary of Mr X. What is the ratio between the salaries of X, Y and Z respectively?  
 (a) 4 : 6 : 5 (b) 4 : 5 : 6 (c) 16 : 24 : 25  
 (d) 16 : 25 : 24 (e) None of these

<b>RESPONSE GRID</b>	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)
	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)
	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)	<b>26.</b> (a)(b)(c)(d)	<b>27.</b> (a)(b)(c)(d)(e)
	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)	<b>30.</b> (a)(b)(c)(d)(e)	<b>31.</b> (a)(b)(c)(d)(e)	



**CHAIN RULE/ UNITARY METHOD**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. An industrial loom weaves 0.128 metres of cloth every second. Approximately, how many seconds will it take for the loom to weave 25 metres of cloth?  
(a) 178 (b) 195 (c) 204  
(d) 488 (e) None of these
2. A flagstaff 17.5 m high casts a shadow of length 40.25 m. The height of the building, which casts a shadow of length 28.75 m under similar conditions will be:  
(a) 10m (b) 12.5m (c) 17.5m  
(d) 21.25m (e) None of these
3. A man completes  $\frac{5}{8}$  of a job in 10 days. At this rate, how many more days will it take him to finish the job?  
(a) 5 (b) 6 (c) 7  
(d)  $7\frac{1}{2}$  (e) None of these
4. 36 men can complete a piece of work in 18 days. In how many days will 27 men complete the same work?  
(a) 12 (b) 18 (c) 22  
(d) 24 (e) None of these
5. A fort had provision of food for 150 men for 45 days. After 10 days, 25 men left the fort. The number of days for which the remaining food will last, is  
(a)  $29\frac{1}{5}$  (b)  $37\frac{1}{4}$  (c) 42  
(d) 54 (e) None of these
6. 39 persons can repair a road in 12 days, working 5 hours a day. In how many days will 30 persons, working 6 hours a day, complete the work?  
(a) 10 (b) 13 (c) 14  
(d) 15 (e) None of these
7. If 7 spiders make 7 webs in 7 days, then 1 spider will make 1 web in how many days?  
(a) 1 (b)  $\frac{7}{2}$  (c) 7  
(d) 49 (e) None of these
8. If 18 pumps can raise 2170 tonnes of water in 10 days, working 7 hours a day, in how many days will 16 pumps raise 1736 tonnes of water, working 9 hours a day?  
(a) 6 (b) 7 (c) 8  
(d) 9 (e) None of these
9. If  $\frac{3}{5}$  of a cistern is filled in 1 minute, how much more time will be required to fill the rest of it?  
(a) 30 sec (b) 40 sec (c) 36 sec  
(d) 24 sec (e) None of these
10. If x men, working x hours per day, can do x units of work in x days, then y men, working y hours per day would be able to complete how many units of work in y days?  
(a)  $\frac{x^2}{y^3}$  (b)  $\frac{x^3}{y^2}$  (c)  $\frac{y^2}{x^3}$   
(d)  $\frac{y^3}{x^2}$  (e) None of these
11. A rope makes 70 rounds of a circumference of a cylinder whose radius of the base is 14 cm. How many times can it go round a cylinder with radius 20 cm?  
(a) 40 (b) 49 (c) 100  
(d) None of these
12. If 5 engines consume 6 metric tonnes of coal when each is running 9 hours a day, how many metric tonnes of coal will be needed for 8 engines, each running 10 hours a day, it being given that 3 engines of the former type consume as much as 4 engines of the latter type?  
(a)  $3\frac{1}{8}$  (b) 8 (c)  $8\frac{8}{9}$   
(d)  $6\frac{12}{25}$  (e) None of these
13. Some persons can do a piece of work in 12 days. Two times the number of such persons will do half of that work in:  
(a) 6 days (b) 4 days (c) 3 days  
(d) 12 days (e) None of these
14. A garrison of 500 men had provisions for 27 days. After 3 days a reinforcement of 300 men arrived. For how many more days will the remaining food last now?  
(a) 15 (b) 16 (c)  $17\frac{1}{2}$   
(d) 18 (e) None of these

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. A garrison had provision for a certain number of days. After 10 days,  $\frac{1}{5}$  of the men desert and it is found that the provisions will now last just as long as before. How long was that?
  - (a) 15 days
  - (b) 25 days
  - (c) 35 days
  - (d) 50 days
  - (e) None of these
16. A contractor undertakes to do a piece of work in 40 days. He engages 100 men at the beginning and 100 more after 35 days and completes the work in stipulated time. If he had not engaged the additional men, how many days behind schedule would it be finished?
  - (a) 3
  - (b) 5
  - (c) 6
  - (d) 9
  - (e) None of these
17. A contractor employed 30 men to do a piece of work in 38 days. After 25 days, he employed 5 men more and the work was finished one day earlier. How many days he would have been behind, if he had not employed additional men?
  - (a) 1
  - (b)  $1\frac{1}{4}$
  - (c)  $1\frac{3}{4}$
  - (d)  $1\frac{1}{2}$
  - (e) None of these
18. 12 men and 18 boys, working  $7\frac{1}{2}$  hours a day, can do a piece of work in 60 days. If a man works equals to 2 boys, then how many boys will be required to help 21 men to do twice the work in 50 days, working 9 hours a day?
  - (a) 30
  - (b) 42
  - (c) 48
  - (d) 90
  - (e) None of these
19. 2 men and 7 boys can do a piece of work in 14 days; 3 men and 8 boys can do the same work in 11 days. Then, 8 men and 6 boys can do three times the amount of this work in
  - (a) 18 days
  - (b) 21 days
  - (c) 24 days
  - (d) 30 days
  - (e) None of these
20. If the cost of x metres of wire is d rupees, then what is the cost of y metres of wire at the same rate?
  - (a) Rs.  $\left(\frac{xy}{d}\right)$
  - (b) Rs. (xd)
  - (c) Rs. (yd)
  - (d) Rs.  $\left(\frac{yd}{x}\right)$
  - (e) None of these
21. A does a work in 10 days and B does the same work in 15 days. In how many days they together will do the same work?
  - (a) 5 days
  - (b) 6 days
  - (c) 8 days
  - (d) 9 days
  - (e) None of these
22. A machine P can print one lakh books in 8 hours, machine Q can print the same number of books in 10 hours while machine R can print them in 12 hours. All the machines are started at 9 a.m. while machine P is closed at 11 a.m. and the remaining two machines complete the work. Approximately at what time will the work be finished?
  - (a) 11:30 a.m.
  - (b) 12 noon
  - (c) 12:30 p.m.
  - (d) 1 p.m.
  - (e) None of these
23. A, B and C together earn Rs. 300 per day, while A and C together earn Rs. 188 and B and C together earn Rs. 152. The daily earning of C is:
  - (a) Rs. 40
  - (b) Rs. 68
  - (c) Rs. 112
  - (d) Rs. 150
  - (e) None of these
24. 4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 10 women complete it?
  - (a) 35
  - (b) 40
  - (c) 45
  - (d) 50
  - (e) None of these
25. If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:
  - (a) 4 days
  - (b) 5 days
  - (c) 6 days
  - (d) 7 days
  - (e) None of these
26. Twenty women can do a work in sixteen days. Sixteen men can complete the same work in fifteen days. What is the ratio between the capacity of a man and a woman?
  - (a) 3 : 4
  - (b) 4 : 3
  - (c) 5 : 3
  - (d) Data inadequate
  - (e) None of these
27. 10 men can complete a piece of work in 15 days and 15 women can complete the same work in 12 days. If all the 10 men and 15 women work together, in how many days will the work get completed?
  - (a) 6
  - (b)  $6\frac{1}{3}$
  - (c)  $6\frac{2}{3}$
  - (d)  $7\frac{2}{3}$
  - (e) None of these
28. Seven men can complete a work in 12 days. They started the work and after 5 days, two men left. In how many days will the work be completed by the remaining men?
  - (a) 5
  - (b) 6
  - (c) 7
  - (d) 8
  - (e) None of these
29. 12 men complete a work in 9 days. After they have worked for 6 days, 6 more men join them. How many days will they take to complete the remaining work?
  - (a) 2 days
  - (b) 3 days
  - (c) 4 days
  - (d) 5 days
  - (e) None of these
30. Three men, four women and six children can complete a work in seven days. A woman does double the work a man does and a child does half the work a man does. How many women alone can complete this work in 7 days?
  - (a) 7
  - (b) 8
  - (c) 12
  - (d) Cannot be determined
  - (e) None of these

<b>RESPONSE GRID</b>	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)
	20. (a)(b)(c)(d)(e)	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)
	25. (a)(b)(c)(d)(e)	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)
	30. (a)(b)(c)(d)(e)				

## TIMES AND WORK/ PIPES AND CISTERNS

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- A and B together can do a piece of work in 12 days and B and C finish the same work together in 16 days. After A has worked on it for 5 days and B for 7 days, C finishes it in 13 days. In how many days will C alone be able to finish the work ?  
(a) 16 (b) 24 (c) 36  
(d) 48 (e) 50
- Pipes A and B can fill a tank in 5 and 6 hours, respectively. Pipe C can empty it in 12 hours. The tank is half full. All the three pipes are in operation simultaneously. After how much time, the tank will be full ?  
(a)  $3\frac{9}{17}$  h (b) 11 h (c)  $2\frac{8}{11}$  h  
(d)  $1\frac{13}{17}$  h (e)  $2\frac{3}{17}$  h
- Ramesh is twice as good a workman as Sunil and finishes a piece of work in 3 hours less than Sunil. In how many hours they together could finish the same piece of work ?  
(a)  $2\frac{1}{3}$  (b) 2 (c)  $1\frac{2}{3}$   
(d) 4 (e) None of these
- A cistern has two taps (which fill it in 12 min and 15 min, respectively) and an exhaust tap. When all three taps are opened together, it takes 20 min to fill the empty cistern. How long will the exhaust tap take to empty it ?  
(a) 20 min (b) 16 min (c) 12 min  
(d) 10 min (e) 7 min
- A mother and a daughter working together can complete a certain work in 4 days. But if the mother worked alone she could complete the work in 6 days. Both of them worked for one day and then the mother had to leave. How long will the daughter take to complete remaining work ?  
(a) 7 days (b) 8 days (c) 6 days  
(d) 9 days (e) 10 days
- If 15 women or 10 men can complete a project in 55 days, in how many days will 5 women and 4 men working together complete the same project ?  
(a) 75 (b) 8 (c) 9  
(d) 85 (e) 90
- 24 men working 8 hours a day can finish a work in 10 days. Working at the rate of 10 hours a day, the number of men required to finish the same work in 6 days is :  
(a) 30 (b) 32 (c) 34  
(d) 36 (e) None of these
- A can do a work in 18 days, B in 9 days and C in 6 days. A and B start working together and after 2 days C joins them. What is the total number of days taken to finish the work ?  
(a) 4.33 day (b) 4.0 day (c) 4.66 day  
(d) 5.33 day (e) None of these
- A worker is paid Rs 56 for 35 hour in a week. Up to 40 hours, he is paid at the normal rate and on overtime, 1.5 times the normal. How many hours did he work to get Rs 88 ?  
(a) 48 hours (b) 50 hours (c) 58 hours  
(d) 55 hours (e) 60 hours
- A and B can do the a piece of work in 6 days. A alone can do it in 10 days. What time will B require to do it alone ?  
(a) 20 days (b) 15 days (c) 25 days  
(d) 3 days (e) 2 days
- A cistern is filled up in 5 hours and it takes 6 hours when there is a leak in its bottom. If the cistern is full, in what time shall the leak empty it ?  
(a) 6 h (b) 5 h (c) 30 h  
(d) 15 h (e) 25 h
- Pipe A and B running together can fill a cistern in 6 minutes. If B takes 5 minutes more than A to fill the cistern then the times in which A and B will fill the cistern separately will be, respectively:  
(a) 15 min, 20 min (b) 15 min, 10 min  
(c) 10 min, 15 min (d) 25 min, 20 min  
(e) None of these
- I can do a piece of work in 8 days, which can be done by you in 10 days. How long will it take to do it if we work together?  
(a)  $4\frac{4}{9}$  days (b)  $5\frac{3}{9}$  days (c)  $5\frac{1}{2}$  days  
(d)  $4\frac{7}{9}$  days (e)  $4\frac{8}{9}$  days
- Two pipes can fill a tank in 10 hours and 12 hours respectively, while the third can empty it in 20 hours . If all the pipes are opened together, the tank will be filled in :  
(a)  $7\frac{1}{2}$  hours (b) 10 hours (c) 8 hours  
(d)  $9\frac{1}{10}$  hours (e) 6 hours
- A and B weave a carpet in 10 days and 15 days, respectively. They begin to work together but B leaves after 2 days. In what time will A complete the remaining work ?  
(a)  $6\frac{1}{3}$  days (b)  $6\frac{2}{3}$  days (c) 7 days  
(d) 8 days (e) None of these

RESPONSE  
GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. A can do a piece of work in 25 days B in 20 days. They work together for 5 days and then A goes away. In how many days will B finish the remaining work ?  
 (a) 17 days (b) 11 days (c) 10 days  
 (d) 12 days (e) None of these
17. A pipe can fill a cistern in 6 hours. Due to a leak in its bottom, it is filled in 7 hours. When the cistern is full, in how much time will it be emptied by the leak?  
 (a) 42 hours (b) 40 hours (c) 43 hours  
 (d) 45 hours (e) 48 hours
18. Two men and 7 children complete a certain piece of work in 4 days, while 4 men and 4 children complete the same work in only 3 days. The number of days required by 1 man to complete the work is :  
 (a) 60 days (b) 15 days (c) 6 days  
 (d) 51 days (e) 52 days
19. A can do a work in 9 days. If B is 50% more efficient than A, then in how many days can B do the same work alone ?  
 (a) 13.5 (b) 4.5 (c) 6  
 (d) 3 (e) None of these
20. A can do a piece of work in 10 days, while B alone can do it in 15 days. They work together for 5 days and the rest of the work is done by C in 2 days. If they get Rs 450 for the whole work, how should they divide the money ?  
 (a) ₹ 225, ₹ 150, ₹ 75 (b) ₹ 250, ₹ 100, ₹ 100  
 (c) ₹ 200, ₹ 150, ₹ 100 (d) ₹ 175, ₹ 175, ₹ 100  
 (e) None of these
21. Three pipes A, B and C can fill a tank in 6 minutes, 8 minutes and 12 minutes, respectively. The pipe C is closed 6 minutes before the tank is filled. In what time will the tank be full ?  
 (a) 4 min (b) 6 min (c) 5 min  
 (d) Data inadequate (e) None of these
22. A can do 50% more work as B can do in the same time. B alone can do a piece of work in 20 hours. A, with help of B, can finish the same work in how many hours ?  
 (a) 12 (b) 8 (c)  $13\frac{1}{3}$   
 (d)  $5\frac{1}{2}$  (e)  $47\frac{1}{2}$
23. There are two taps to fill a tank while a third to empty it. When the third tap is closed, they can fill the tank in 10 minutes and 12 minutes, respectively. If all the three taps be opened, the tank is filled in 15 minutes. If the first two taps are closed, in what time can the third tap empty the tank when it is full?  
 (a) 8 min and 34 sec (b) 9 min and 32 sec  
 (c) 7 min (d) 6 min  
 (e) None of these
24. A cistern has two taps which fill it in 12 minutes and 15 minutes respectively. There is also a waste pipe in the cistern. When all the pipes are opened, the empty cistern is full in 20 minutes. How long will the waste pipe take to empty a full cistern?  
 (a) 12 minutes (b) 10 minutes (c) 8 minutes  
 (d) 16 minutes (e) 20 minutes
25. Two taps can fill a tank in 20 minutes and 30 minutes respectively. There is an outlet tap at exactly half level of that rectangular tank which can pump out 50 litres of water per minute. If the outlet tap is open, then it takes 24 minutes to fill an empty tank. What is the volume of the tank?  
 (a) 1800 litres (b) 1500 litres (c) 1200 litres  
 (d) 2400 litres (e) None of these
26. Two taps can separately fill a cistern in 10 minutes and 15 minutes, respectively and when the waste pipe is open, they can together fill it in 18 minutes. The waste pipe can empty the full cistern in :  
 (a) 7 minutes (b) 13 minutes (c) 9 minutes  
 (d) 23 minutes (e) 25 minutes
27. Two pipes P and Q would fill a cistern in 24 and 32 minutes, respectively. Both pipes are kept open. When should the first pipe be turned off so that the cistern may be just filled in 16 minutes?  
 (a) After 10 minutes (b) After 12 minutes  
 (c) After 14 minutes (d) After 16 minutes  
 (e) None of these
28. One tap can fill a cistern in 2 hours and another can empty the cistern in 3 hours. How long will they take to fill the cistern if both the taps are open?  
 (a) 7 hours (b) 6 hours (c) 5 hours  
 (d) 8 hours (e) None of these
29. A cistern has a leak which would empty it in 8 hours. A tap is turned on which admits 6 litres a minute into the cistern and it is now emptied in 12 hours. The cistern can hold  
 (a) 7860 litres (b) 6840 litres (c) 8640 litres  
 (d) 8840 litres (e) None of these
30. If 15 men or 24 women or 36 boys can do a piece of work in 12 days, working 8 hours a day, how many men must be associated with 12 women and 6 boys to do another piece of work  $2\frac{1}{4}$  times as great in 30 days working 6 hours a day?  
 (a) 4 (b) 8 (c) 6  
 (d) 10 (e) 12

<b>RESPONSE GRID</b>	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)
	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)
	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)



## PROFIT, LOSS AND DISCOUNT

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- A shopkeeper bought 30 kg of wheat at the rate of ₹ 45 per kg. He sold forty per cent of the total quantity at the rate of ₹ 50 per kg. Approximately, at what price per kg should he sell the remaining quantity to make 25 per cent overall profit?
  - ₹ 54
  - ₹ 52
  - ₹ 50
  - ₹ 60
  - ₹ 56
- A man buys a single apple for ₹ 25. If he were to buy a dozen apples, he would have to pay a total amount of ₹ 250. What would be the approximate per cent discount he would get on buying a dozen apples?
  - 32
  - 20
  - 12
  - 8
  - 17
- Manoj sold an article for ₹ 15000. Had he offered a discount of 10% on the selling price, he would have earned a profit of 8%. What is the cost price?
  - ₹ 12500
  - ₹ 13500
  - ₹ 12250
  - ₹ 13250
  - None of these
- Naresh purchased a TV set for ₹ 11250 after getting discount of 10% on the labelled price. He spent ₹ 150 on transport and ₹ 800 on installation. At what price should it be sold so that the profit earned would have been 15% if no discount was offered?
  - ₹ 12937.50
  - ₹ 14030
  - ₹ 13450
  - ₹ 15467.50
  - None of these
- The profit earned after selling a wrist watch for ₹ 4080 is the same as loss incurred after selling the same wrist watch for ₹ 3650. What is the cost price of the wrist watch?
  - ₹ 3785
  - ₹ 3800
  - ₹ 3775
  - ₹ 3865
  - None of these
- The profit earned after selling an article for ₹ 996 is the same as loss incurred after selling the article for ₹ 894. What is the cost price of the article?
  - ₹ 935
  - ₹ 905
  - ₹ 945
  - ₹ 975
  - None of these
- A man sells two watches for ₹ 99 each. On one he gained 10% and on the other he lost 10%. His gain or loss per cent is \_\_\_\_\_.
  - 1%
  - 2%
  - 3%
  - 4%
  - 7%
- By selling goods for ₹ 153, a man loses 10%. For how much should he sell them to gain 20%?
  - 304
  - 204
  - 504
  - 404
  - 604
- By selling goods for ₹ 240, a merchant gains 25%. How much per cent would he gain by selling it for ₹ 216?
  - $12\frac{1}{2}\%$
  - $13\frac{1}{2}\%$
  - $6\frac{1}{2}\%$
  - $14\frac{1}{2}\%$
  - $17\frac{1}{2}\%$
- What profit per cent is made by selling an article at a certain price, if by selling at two-third of that price there would be a loss of 20%?
  - 5%
  - 10%
  - 15%
  - 20%
  - None of these
- By selling oranges at 32 a rupee, a man loses 40%. How many a rupee must he sell to gain 20 p.c.?
  - 16
  - 18
  - 20
  - 25
  - None of these
- The cost price of 16 articles is equal to the selling price of 12 articles. The gain or loss per cent is \_\_\_\_\_.
  - $13\frac{1}{3}\%$
  - $33\frac{1}{3}\%$
  - $15\frac{1}{2}\%$
  - $11\frac{1}{2}\%$
  - $43\frac{1}{2}\%$
- By selling 33 metres of cloth, I gain the selling price of 11 metres. The gain per cent is \_\_\_\_\_.
  - 20%
  - 22%
  - 48%
  - 50%
  - 70%
- 5% more is gained by selling a cow for ₹ 350 than by selling it for ₹ 340. The cost price of the cow is \_\_\_\_\_.
  - 100
  - 200
  - 300
  - 250
  - 350
- A man buys apples at a certain price per dozen and sells them at eight times that price per hundred. His gain or loss per cent is \_\_\_\_\_.
  - 4%
  - 4%
  - 5%
  - 5%
  - 9%

RESPONSE  
GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. A milkman buys some milk contained in 10 vessels of equal size. If he sells his milk at ₹ 5 a litre, he loses ₹ 200; while selling it at ₹ 6 a litre, he would gain ₹ 150 on the whole. Find the number of litres contained in each cask.  
 (a) 30 (b) 35 (c) 40  
 (d) 45 (e) 50
17. A watch passes through three hands and each gains 25%. If the third sells it for ₹ 250, what did the first pay for it?  
 (a) 128 (b) 130 (c) 145  
 (d) 150 (e) 180
18. If by selling an article for ₹ 60, a person loses  $\frac{1}{7}$  of outlay (cost), what would he have gained or lost per cent by selling it for ₹ 77?  
 (a) 5% (b) 10% (c) 11%  
 (d) 15% (e) 25%
19. I sold a book at a profit of 7%. Had I sold it for ₹ 7.50 more, 22% would have been gained. Find the cost price.  
 (a) 25 (b) 30 (c) 50  
 (d) 55 (e) 60
20. A reduction of 40 per cent in the price of bananas would enable a man to obtain 64 more for ₹ 40. What is the reduced price per dozen ?  
 (a) 3 (b) 6 (c) 5  
 (d) 4 (e) 8
21. A man purchased an article at  $\frac{3}{4}$ th of the list price and sold at half more than the list price. What was his gain per cent ?  
 (a) 25% (b) 50% (c) 75%  
 (d) 100% (e) 150%
22. I lose 9 per cent selling pencils at the rate of 15 a rupee. How many for a rupee must I sell them to gain 5 per cent?  
 (a) 10 (b) 13 (c) 15  
 (d) 18 (e) 20
23. Goods are sold so that when 4 per cent is taken off the list price, a profit of 20% is made. How much per cent is the list price more than the cost price ?  
 (a) 25% (b) 50% (c) 75%  
 (d) 100% (e) 150%
24. A man sells an article at 5% profit. If he had bought it at 5% less and sold it for ₹ 1 less, he would have gained 10%. Find the cost price.  
 (a) 100 (b) 150 (c) 200  
 (d) 250 (e) 300
25. A profit of 20% is made on goods when a discount of 10% is given on the marked price. What profit per cent will be made when a discount of 20% is given on the marked price?  
 (a)  $6\frac{2}{3}\%$  (b)  $7\frac{2}{3}\%$  (c)  $3\frac{1}{4}\%$   
 (d)  $7\frac{4}{5}\%$  (e)  $9\frac{1}{4}\%$
26. A dealer sells a table for ₹ 400, making a profit of 25%. He sells another table at a loss of 10%, and on the whole he makes neither profit nor loss. What did the second table cost him ?  
 (a) 700 (b) 800 (c) 900  
 (d) 950 (e) 1000
27. Each of the two horses is sold for ₹ 720. The first one is sold at 25% profit and the other one at 25% loss. What is the % loss or gain in this deal ?  
 (a) 7.25% (b) 6.25% (c) 8.5%  
 (d) 9.25% (e) 10.25%
28. Each of the two cars is sold at the same price. A profit of 10% is made on the first and a loss of 7% is made on the second. What is the combined loss or gain ?  
 (a)  $\frac{150}{203}\%$  (b)  $\frac{160}{203}\%$  (c)  $\frac{180}{205}\%$   
 (d)  $\frac{170}{205}\%$  (e) None of these
29. Profit earned by an organisation is distributed among officers and clerks in the ratio of 5 : 3. If the number of officers is 45 and the number of clerks is 80 and the amount received by each officer is ₹25,000, what was the total amount of profit earned?  
 (a) ₹22 lakh (b) ₹18.25 lakh  
 (c) ₹18 lakh (d) ₹3.25 lakh  
 (e) None of these
30. A shopkeeper labelled the price of his articles so as to earn a profit of 30% on the cost price. He, then sold the articles by offering a discount of 10% on the labelled price. What is the actual per cent profit earned in the deal?  
 (a) 18% (b) 15%  
 (c) 20% (d) Cannot be determined  
 (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a)(b)(c)(d)(e) <b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e)
	<b>21.</b> (a)(b)(c)(d)(e) <b>22.</b> (a)(b)(c)(d)(e) <b>23.</b> (a)(b)(c)(d)(e) <b>24.</b> (a)(b)(c)(d)(e) <b>25.</b> (a)(b)(c)(d)(e)
	<b>26.</b> (a)(b)(c)(d)(e) <b>27.</b> (a)(b)(c)(d)(e) <b>28.</b> (a)(b)(c)(d)(e) <b>29.</b> (a)(b)(c)(d)(e) <b>30.</b> (a)(b)(c)(d)(e)

## DISTANCE, SPEED AND TIME

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- The average speed of a car is  $1\frac{4}{5}$  times the average speed of a bus. A tractor covers 575 km in 23 hours. How much distance will the car cover in 4 hours if the speed of the bus is twice speed of the tractor ?  
(a) 340km (b) 480km (c) 360km  
(d) 450km (e) None of these
- A bike covers a certain distance at the speed of 64 km/h in 8 hours. If the bike was to cover the same distance in approximately 6 hours, at what approximate speed should the bike travel ?  
(a) 80 km/h (b) 85 km/h (c) 90 km/h  
(d) 75 km/h (e) 70 km/h
- The speed of a boat when travelling downstream is 32 km/h, whereas when travelling upstream it is 28 km/h. What is the speed of the boat in still water ?  
(a) 27 km/h (b) 29 km/h  
(c) 31 km/h (d) Cannot be determined  
(e) None of these
- The ratio between the speed of a train and a car is 16 : 15 respectively. Also, a bus covered a distance of 480 km in 8 h. The speed of the bus is three-fourth the speed of the train. How much distance will the car cover in 6 h?  
(a) 450km (b) 480km  
(c) 360km (d) Cannot be determined  
(e) None of these
- Car A runs at the speed of 65 km/h and reaches its destination in 8h. Car B runs at the speed of 70 km/h and reaches its destination in 4h. What is the respective ratio of distances covered by Car A and Car B ?  
(a) 11 : 7 (b) 7 : 13 (c) 13 : 7  
(d) 7 : 11 (e) None of these
- A bus started its journey from Ramgarh and reached Devgarh in 44 min with its average speed of 50 km/hr. If the average speed of the bus is increased by 5 km/hr, how much time will it take to cover the same distance ?  
(a) 40 min (b) 38 min (c) 36 min  
(d) 31 min (e) 49 min
- The wheel of an engine  $4\frac{2}{7}$  metres in circumference makes seven revolutions in 4 seconds. Find the speed of the train in km per hour.  
(a) 27 (b) 30 (c) 33  
(d) 36 (e) None of these
- A man takes 6 hrs 30 min in walking to a certain place and riding back. He would have gained 2 hrs 10 min by riding both ways. How long would he take to walk both ways?  
(a) 8 hr 30 min (b) 8 hr 40 min (c) 8 hr 50 min  
(d) 9 hr (e) None of these
- A Train which travels at the uniform rate of 10 m a second leaves Madras for Arconum at 7 a.m. At what distance from Madras will it meet a train which leaves Arconum for Madras at 7.20 a.m., and travels one-third faster than the former does, the distance from Madras to Arconum being 68 km?  
(a) 40 (b) 38 (c) 36  
(d) 34 (e) None of these
- A, B and C can walk at the rates of 3, 4 and 5 km an hour respectively. They start from Poona at 1, 2, 3 o'clock respectively. When B catches A, B sends him back with a message to C. When will C get the message?  
(a) 5.15 (b) 5.20 (c) 5.30  
(d) 6.00 (e) None of these
- Two men start together to walk a certain distance, one at  $3\frac{3}{4}$  km an hour and the other at 3 km an hour. The former arrives half an hour before the latter. Find the distance.  
(a) 7km (b) 7.5 km (c) 8km  
(d) 8.5 km (e) None of these
- A motor car does a journey in 10 hours, the first half at 21 km per hour, and the rest at 24 km per hour. Find the distance.  
(a) 224km (b) 234km (c) 236km  
(d) 240km (e) None of these
- A person going from Pondicherry to Ootacamond travels 120 km by steamer, 450 km by rail and 60 km by horse transit. The journey occupies 13 hours 30 minutes, and the rate of the train is three times that of the horse transit and  $1\frac{1}{2}$  times that of the steamer. Find the rate of the train.  
(a) 30 km/hr (b) 60 km/hr (c) 80 km/hr  
(d) 90 km/hr (e) None of these
- How many seconds will a train 60 m in length, travelling at the rate of 42 km an hour, rate to pass another train 84 m long, proceeding in the same direction at the rate of 30 km an hour?  
(a) 42 (b) 43.2 (c) 45  
(d) 50 (e) None of these

RESPONSE  
GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. A train 75 metres long overtook a person who was walking at the rate of 6 km an hour, and passed him in  $7\frac{1}{2}$  seconds. Subsequently it overtook a second person, and passed him in  $6\frac{3}{4}$  seconds. At what rate was the second person travelling?
  - (a) 2 km/m                      (b) 3 km/m                      (c) 5 km/m
  - (d) 6 km/m                      (e) None of these
16. A train takes 5 seconds to pass an electric pole. If the length of the train is 120 metres, the time taken by it to cross a railway platform 180 metres long is \_\_\_\_\_ seconds.
  - (a) 12.5                          (b) 13.5                          (c) 14.5
  - (d) 15.5                          (e) None of these
17. A train is running at the rate of 40 kmph. A man is also going in the same direction parallel to the train at the speed of 25 kmph. If the train crosses the man in 48 seconds, the length of the train is \_\_\_\_\_ metres.
  - (a) 100                          (b) 150                          (c) 200
  - (d) 250                          (e) None of these
18. A train speeds past a pole in 15 seconds and speeds past a platform 100 metres long in 25 seconds. Its length in metres is \_\_\_\_\_.
  - (a) 50                              (b) 100                              (c) 150
  - (d) 200                              (e) None of these
19. A train overtakes two persons who are walking in the same direction in which the train is going, at the rate of 2 kmph and 4 kmph respectively and passes them completely in 9 and 10 seconds respectively. The length of the train is \_\_\_\_\_ metres.
  - (a) 72 metres                      (b) 54 metres                      (c) 50 metres
  - (d) 45 metres                      (e) None of these
20. A boat goes 40 km upstream in 8 hours and 36 km downstream in 6 hours. The speed of the boat in still water is \_\_\_\_\_ km/hr.
  - (a) 5                                  (b) 5.5                                  (c) 6
  - (d) 6.5                                  (e) None of these
21. A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of the boat in still water is 9 km/hr and the speed of the current is 3 km/hr the distance between A and B is \_\_\_\_\_ km.
  - (a) 12                                  (b) 15                                  (c) 18
  - (d) 21                                  (e) None of these
22. A man can row at 4 km/hr in still water and the velocity of the current is 1 km/hr. It takes him 1 hour to row to a place and back. How far is the place ?
  - (a) 2                                  (b) 2.4                                  (c) 3.4
  - (d) 4                                  (e) None of these
23. The speed of a boat in still water is 6 km/hr and the speed of the stream is 1.5 km/hr. A man rows to a place at a distance of 22.5 km and comes back to the starting point. Find the total time taken by him.
  - (a) 8 hr                                  (b) 9 hr                                  (c) 10 hr
  - (d) 11 hr                                  (e) None of these
24. A man rows upstream 16 km and downstream 28 km, taking 5 hours each time. The velocity of the current is \_\_\_\_\_ km/hr.
  - (a) 1                                  (b) 1.2                                  (c) 1.4
  - (d) 2                                  (e) None of these
25. A boat moves upstream at the rate of 1 km in 10 minutes and down-stream at the rate of 1 km in 6 minutes. The speed of the current is \_\_\_\_\_ km/hr.
  - (a) 1                                  (b) 1.2                                  (c) 1.4
  - (d) 2                                  (e) None of these
26. A can row a certain distance down a stream in 6 hours and return the same distance in 9 hours. If the stream flows at the rate of  $2\frac{1}{4}$  km per hour, find how far he can row in an hour in still water.
  - (a)  $11\frac{1}{4}$  km/h                      (b)  $12\frac{1}{3}$  km/h                      (c)  $13\frac{1}{3}$  km/h
  - (d)  $14\frac{1}{3}$  km/h                      (e) None of these
27. The current of a stream runs at the rate of 4 km an hour. A boat goes 6 km back to the starting point in 2 hours. The speed of the boat in still water is \_\_\_\_\_ km/hr.
  - (a) 10                                  (b) 12                                  (c) 8
  - (d) 6                                  (e) None of these
28. A man walked at a speed of 4 km/hr from point A to B and came back from point B to A at the speed of 6 km/hr. What would be the ratio of the time taken by the man in walking from point A to B that from point B to A?
  - (a) 5 : 3                                  (b) 2 : 3                                  (c) 2 : 1
  - (d) 4 : 3                                  (e) 3 : 2
29. A car travels a distance of 560 km in 9.5 hours partly at a speed of 40 kmh<sup>-1</sup> and partly at 160 kmh<sup>-1</sup>. What is the distance it travel at the speed of 160 kmh<sup>-1</sup>?
  - (a) 120 km                                  (b) 240 km                                  (c) 320 km
  - (d) 360 km                                  (e) 420 km
30. A train 120 metres in length passes a pole in 4 seconds and another train of length 210 metres travelling in the same direction in 15 seconds. What is the speed of the second train?
  - (a) 8 ms<sup>-1</sup>                                  (b) 12 ms<sup>-1</sup>                                  (c) 22 ms<sup>-1</sup>
  - (d) 30 ms<sup>-1</sup>                                  (e) 38 ms<sup>-1</sup>

<b>RESPONSE GRID</b>	<b>15.</b> (a)(b)(c)(d)(e) <b>16.</b> (a)(b)(c)(d)(e) <b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e) <b>21.</b> (a)(b)(c)(d)(e) <b>22.</b> (a)(b)(c)(d)(e) <b>23.</b> (a)(b)(c)(d)(e) <b>24.</b> (a)(b)(c)(d)(e) <b>25.</b> (a)(b)(c)(d)(e) <b>26.</b> (a)(b)(c)(d)(e) <b>27.</b> (a)(b)(c)(d)(e) <b>28.</b> (a)(b)(c)(d)(e) <b>29.</b> (a)(b)(c)(d)(e) <b>30.</b> (a)(b)(c)(d)(e)
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## ALLIGATIONS AND MIXTURES

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- A mixture of certain quantity of milk with 16 litres of water is worth 90 P per litre. If pure milk be worth ₹ 1.08 per litre, how much milk is there in the mixture?  
(a) 60 (b) 70 (c) 80  
(d) 90 (e) None of these
- How many kg of salt at 42 P per kg must a man mix with 25 kg of salt at 24 P per kg so that he may, on selling the mixture at 40 P per kg gain 25% on the outlay?  
(a) 15 (b) 20 (c) 25  
(d) 30 (e) None of these
- 300 gm of sugar solution has 40% sugar in it. How much sugar should be added to make it 50% in the solution?  
(a) 40 gm (b) 50 gm (c) 60 gm  
(d) 70 gm (e) None of these
- There are 65 students in a class. 39 rupees are distributed among them so that each boy gets 80 P and each girl gets 30 P. Find the number of boys and girls in that class.  
(a) 45, 20 (b) 40, 25 (c) 39, 26  
(d) 29, 36 (e) None of these
- A person has a chemical of ₹ 25 per litre. In what ratio should water be mixed in that chemical so that after selling the mixture at ₹ 20/litre he may get a profit of 25%?  
(a) 14 (b) 15 (c) 16  
(d) 17 (e) None of these
- In what ratio should milk and water be mixed so that after selling the mixture at the cost price a profit of  $16\frac{2}{3}\%$  is made?  
(a) 1 : 2 (b) 1 : 6  
(c) 2 : 3 (d) 2 : 5  
(e) None of these
- A trader has 50 kg of rice, a part of which he sells at 14% profit and the rest at 6% loss. On the whole his loss is 4%. What is the quantity sold at 14% profit and that at 6% loss?  
(a) 2, 48 (b) 4, 46 (c) 5, 45  
(d) 7, 43 (e) None of these
- A vessel of 80 litre is filled with milk and water. 70% of milk and 30% of water is taken out of the vessel. It is found that the vessel is vacated by 55%. Find the initial quantity of milk and water.  
(a) 20, 60 (b) 30, 50 (c) 50, 30  
(d) 60, 20 (e) None of these
- A container contained 80 kg of milk. From this container, 8 kg of milk was taken out and replaced by water. This process was further repeated two times. How much milk is now contained by the container?  
(a) 48 kg (b) 56 kg (c) 58.32 kg  
(d) 59.46 kg (e) None of these
- Gold is 19 times as heavy as water and copper 9 times. In what ratio should these metals be mixed so that the mixture may be 15 times as heavy as water?  
(a) 1 : 2 (b) 3 : 2 (c) 2 : 3  
(d) 4 : 5 (e) None of these
- How much water must be added to a cask which contains 40 litres of milk at cost price ₹ 3.5/litres so that the cost of milk reduces to ₹ 2/litre?  
(a) 20 (b) 35 (c) 45  
(d) 50 (e) None of these
- A dishonest milkman professes to sell his milk at cost price but he mixes it with water and thereby gains 25%. The percentage of water in the mixture is \_\_\_\_\_.  
(a) 10% (b) 15% (c) 20%  
(d) 25% (e) None of these
- A can contains a mixture of two liquids A and B in proportion 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the proportion of A and B becomes 7 : 9. How many litres of liquid A was contained by the can initially?  
(a) 20 l (b) 21 l (c) 30 l  
(d) 36 l (e) None of these
- In a mixture of 60 litres, the ratio of milk to water is 2 : 1. If the ratio of milk to water is to be 1 : 2, then amount of water to be further added is \_\_\_\_\_.  
(a) 20 (b) 40 (c) 60  
(d) 80 (e) None of these
- In what ratio must a person mix three kinds of wheat costing him ₹ 1.20, ₹ 1.44 and ₹ 1.74 per kg, so that the mixture may be worth ₹ 1.41 per kg?  
(a) 1 : 2 : 3 (b) 4 : 5 : 7 (c) 12 : 7 : 7  
(d) 13 : 7 : 9 (e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e)

16. In three vessels each of 10 litres capacity, mixture of milk and water is filled. The ratios of milk and water are 2 : 1, 3 : 1 and 3 : 2 in the three respective vessels. If all the three vessels are emptied into a single large vessel, find the proportion of milk and water in the mixture.  
 (a) 181 : 49                      (b) 101 : 49                      (c) 121 : 59  
 (d) 131 : 69                      (e) None of these
17. Milk and water are mixed in a vessel A in the proportion 5 : 2, and in vessel B in the proportion 8 : 5. In what proportion should quantities be taken from the two vessels so as to form a mixture in which milk and water will be in the proportion of 9 : 4?  
 (a) 4 : 5                              (b) 5 : 7                              (c) 7 : 2  
 (d) 7 : 9                              (e) None of these
18. A butler stores wine from a butt of sherry which contained 30% of spirit and he replaced what he had stolen by wine containing only 12% of spirit. The butt was then 18% strong only. How much of the butt did he steal?  
 (a)  $\frac{1}{3}$                                       (b)  $\frac{2}{5}$                                       (c)  $\frac{2}{3}$   
 (d)  $\frac{4}{7}$                                       (e) None of these
19. Jayashree purchased 150 kg of wheat of the rate of ₹ 7 per kg. She sold 50 kg at a profit of 10%. At what rate per kg should she sell the remaining to get a profit of 20% on the total deal?  
 (a) 6.50                                  (b) 8.75                                  (c) 7.50  
 (d) 9.75                                  (e) None of these
20. A jar contains a mixture of two liquids A and B in the ratio 4 : 1. When 10 litres of the mixture is taken out and 10 litres of liquid B is poured into the jar, the ratio becomes 2 : 3. How many litres of liquid A was contained in the jar?  
 (a) 12 l                                      (b) 14 l                                      (c) 16 l  
 (d) 20 l                                      (e) None of these
21. In a mixture of milk and water the proportion of water by weight was 75%. If in 60 gm of mixture 15 gm water was added, what would be the percentage of water? (Weight in gm)  
 (a) 75%                                      (b) 88%                                      (c) 90%  
 (d) 100%                                      (e) None of these
22. In what ratio must a grocer mix two varieties of pulses costing Rs. 15 and Rs. 20 per kg respectively so as to get a mixture worth Rs. 16.50 per kg?  
 (a) 3 : 7                                      (b) 5 : 7                                      (c) 7 : 3  
 (d) 7 : 5                                      (e) None of these
23. Find the ratio in which rice at Rs. 7.20 a kg be mixed with rice at Rs. 5.70 a kg to produce a mixture worth Rs. 6.30 a kg.  
 (a) 1 : 3                                      (b) 2 : 3                                      (c) 3 : 4  
 (d) 4 : 5                                      (e) None of these
24. In what ratio must tea at Rs. 62 per kg be mixed with tea at Rs. 72 per kg so that the mixture must be worth Rs. 64.50 per kg?  
 (a) 3 : 1                                      (b) 3 : 2                                      (c) 4 : 3  
 (d) 5 : 3                                      (e) None of these
25. In what ratio must water be mixed with milk costing Rs. 12 per litre to obtain a mixture worth of Rs. 8 per litre?  
 (a) 1 : 2                                      (b) 2 : 1                                      (c) 2 : 3  
 (d) 3 : 2                                      (e) None of these
26. In what ratio must a grocer mix two varieties of tea worth Rs. 60 a kg and Rs. 65 a kg so that by selling the mixture at Rs. 68.20 a kg he may gain 10%?  
 (a) 3 : 2                                      (b) 3 : 4                                      (c) 3 : 5  
 (d) 4 : 5                                      (e) None of these
27. A jar full of whisky contains 40% alcohol. A part of this whisky is replaced by another containing 19% alcohol and now the percentage of alcohol was found to be 26%. The quantity of whisky replaced is:  
 (a)  $\frac{1}{3}$                                       (b)  $\frac{2}{3}$                                       (c)  $\frac{2}{5}$   
 (d)  $\frac{3}{5}$                                       (e) None of these
28. Two vessels A and B contain spirit and water mixed in the ratio 5 : 2 and 7 : 6 respectively. Find the ratio in which these mixture be mixed to obtain a new mixture in vessel C containing spirit and water in the ratio 8 : 5 ?  
 (a) 4 : 3                                      (b) 3 : 4                                      (c) 5 : 6  
 (d) 7 : 9                                      (e) None of these
29. Two vessels A and B contain milk and water mixed in the ratio 8 : 5 and 5 : 2 respectively. The ratio in which these two mixtures be mixed to get a new mixture containing  $69\frac{3}{13}\%$  milk, is :  
 (a) 2 : 7                                      (b) 3 : 5                                      (c) 5 : 2  
 (d) 5 : 7                                      (e) None of these
30. A can contains a mixture of two liquids A and B in the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7 : 9. How many litres of liquid A was contained by the can initially?  
 (a) 10    (b) 20    (c) 21  
 (d) 25    (e) None of these

<b>RESPONSE GRID</b>	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)
	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)
	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)



**SIMPLE INTEREST/COMPOUND INTEREST**

Max. Marks : 35

No. of Qs. 35

Time : 25 min.

Date : ...../...../.....

1. The simple interest accrued on a sum of certain principal is ₹ 2000 in five years at the rate of 4% per annum. What would be the compound interest accrued on same principal at same rate in two years ?  
 (a) ₹ 716 (b) ₹ 724 (c) ₹ 824  
 (d) ₹ 816 (e) None of these
2. What total amount would Mithilesh get at the end of three years if he invests an amount of ₹ 11200 in a scheme, which offers simple interest 8.5% per annum for three years ?  
 (a) ₹ 14056 (b) ₹ 14348 (c) ₹ 13852  
 (d) ₹ 15064 (e) None of these
3. Arun invested a sum of money at a certain rate of simple interest for a period of four years. Had he invested the same sum for a period of six years the total interest earned by him would have been fifty per cent more than the earlier interest amount. What was the rate of interest per cent per annum?  
 (a) 4 (b) 8  
 (c) 5 (d) Cannot be determined  
 (e) None of these
4. Rohit invested some amount at the rate of 6 pcpa and at the end of 2 yr he got ₹ 8730 simple interest. How much compound interest he will get on same amount and same rate of interest after 2 yr.  
 (a) ₹ 5820 (b) ₹ 5949.60 (c) ₹ 5900  
 (d) ₹ 5994.60 (e) None of these
5. What amount a man would have received on a principal of ₹ 4000 after two yr simple interest @ 5% per annum ?  
 (a) ₹ 4161 (b) ₹ 5200 (c) ₹ 4410  
 (d) ₹ 4100 (e) ₹ 4190
6. The simple interest accrued on an amount of ₹ 27500 at the end of three years is ₹ 10230. What would be the approximate compound interest accrued on the same amount at the same rate in the same period ?  
 (a) ₹ 11550 (b) ₹ 12620 (c) ₹ 10950  
 (d) ₹ 11900 (e) ₹ 13500
7. The simple interest accrued on an amount of ₹ 84000 at the end of 3 yr is ₹ 30240. What would be the compound interest accrued on the same amount at the same rate in the same period ?  
 (a) ₹ 30013.95 (b) ₹ 31013.95 (c) ₹ 32013.95  
 (d) ₹ 33013.95 (e) ₹ 34013.95
8. Kruti took a loan at a simple interest rate of 6% in the first year with an increase of 0.5% in each subsequent year. She paid interest of ₹ 3375 after four years. How much loan did she take ?  
 (a) ₹ 12500 (b) ₹ 33140  
 (c) ₹ 15800 (d) Cannot be determined  
 (e) None of these
9. The simple interest accrued on an amount of ₹ 40000 at the end of three years ₹ 12000. What would be the compound interest accrued on the same amount at the same rate in the same period ?  
 (a) ₹ 18765 (b) ₹ 15350 (c) ₹ 21555  
 (d) ₹ 13240 (e) None of these
10. Vishwas borrowed a total amount of ₹ 30000, part of it on simple interest rate of 12% per annum and remaining on simple interest rate of 10% per annum. If at the end of 2 yr he paid in all ₹ 36480 to settle the loan amount, what was the amount borrowed at 12% pre annum ?  
 (a) ₹ 16000 (b) ₹ 18000 (c) ₹ 17500  
 (d) ₹ 12000 (e) None of these
11. The simple interest accrued on an amount of ₹ 17000 at the end of four years is ₹ 6800. What would be the compound interest accrued on the same amount at the same rate in the same period ?  
 (a) ₹ 7889.7 (b) ₹ 8324  
 (c) ₹ 6990.5 (d) Cannot be determined  
 (e) None of these
12. A sum of Rs. 2600 is lent out in two parts in such a way that the interest on one part at 10% for 5 years is equal to that on the other part at 9% for 6 years. The sum lent out at 10% is \_\_\_\_\_.  
 (a) 1250 (b) 1350 (c) 1450  
 (d) 1550 (e) 1650
13. The simple interest on a sum of money is  $\frac{1}{16}$ th of the principal and the number of years is equal to the rate per cent per annum. The rate per cent annum is \_\_\_\_\_.  
 (a)  $6\frac{1}{4}\%$  (b)  $6\frac{1}{3}\%$  (c)  $6\frac{1}{5}\%$   
 (d)  $4\frac{1}{5}\%$  (e)  $7\frac{1}{7}\%$
14. A sum of money will double itself in 16 years at simple interest at in yearly rate of \_\_\_\_\_.  
 (a)  $13\frac{1}{2}\%$  (b)  $11\frac{1}{2}\%$  (c)  $10\frac{1}{2}\%$   
 (d)  $9\frac{1}{2}\%$  (e)  $11\frac{1}{7}\%$
15. At a certain rate of simple interest, a certain sum doubles itself in 10 years. It will treble itself in years \_\_\_\_\_.  
 (a) 10 (b) 20 (c) 25  
 (d) 30 (e) 45

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. The difference between the interest received from two different banks on ₹ 500 for 2 years is ₹ 2.50. The difference between their rates is \_\_\_\_\_ .  
 (a) 1% (b) 2% (c) 0.5%  
 (d) 0.25% (e) 1.5%
17. Some amount out of ₹ 7000 was lent at 6% per annum and the remaining at 4% per annum. If the total simple interest from both the fractions in 5 yrs. was ₹ 1600, find the sum lent at 6% per annum.  
 (a) 1500 (b) 2000 (c) 2500  
 (d) 3000 (e) 5000
18. A sum of money at simple interest amounts to ₹ 600 in 4 years and ₹ 650 in 6 years. Find the rate of interest per annum.  
 (a) 3% (b) 5% (c) 9%  
 (d) 10% (e) 15%
19. Arun and Ramu are friends. Arun borrowed a sum of ₹ 400 at 5% per annum simple interest from Ramu. He returns the amount with interest after 2 years. Ramu returns to Arun 2% of the total amount returned. How much did Arun receive ?  
 (a) 9 (b) 8.80 (c) 7.5  
 (d) 7 (e) 10.5
20. A person lent at certain sum of money at 4% simple interest; and in 8 years the interest amounted to ₹ 340 less than the sum lent. Find the sum lent.  
 (a) 500 (b) 600 (c) 1000  
 (d) 1500 (e) 1700
21. Sonika invested an amount of ₹ 5800 for 2 years. At what rate of compound interest will she get an amount of ₹ 594.5 at the end of two years ?  
 (a) 5 p.c.p.a. (b) 4 p.c.p.a. (c) 6 p.c.p.a.  
 (d) 8 p.c.p.a. (e) None of these
22. The compound interest earned by Suresh on a certain amount at the end of two years at the rate of 8 p.c.p.a. was ₹ 1414.4. What was the total amount that Suresh got back at the end of two years in the form of principal plus interest earned ?  
 (a) ₹ 9414.4 (b) ₹ 9914.4 (c) ₹ 9014.4  
 (d) ₹ 8914.4 (e) None of these
23. What would be the compound interest accrued on an amount of ₹ 7400 @ 13.5 p.c.p.a. at the end of two years ? (Rounded off to two digits after decimal)  
 (a) ₹ 2136.87 (b) ₹ 2306.81 (c) ₹ 2032.18  
 (d) ₹ 2132.87 (e) None of these
24. If the compound interest accrued on an amount of ₹ 14500 in two years is ₹ 4676.25, what is the rate of interest p.c.p.a. ?  
 (a) 11 (b) 9 (c) 15  
 (d) 18 (e) None of these
25. What would be the compound interest accrued on a amount of ₹ 8000 at the rate of 15% per annum in three years ?  
 (a) ₹ 4283 (b) ₹ 4051 (c) ₹ 4167  
 (d) ₹ 4325 (e) None of these
26. What would be the compound interest accrued on an amount of ₹ 7850 at the rate of 14% per annum in two years ?  
 (a) ₹ 2351.86 (b) ₹ 2880.37 (c) ₹ 2518.22  
 (d) ₹ 2290.23 (e) ₹ 34013.95
27. What will be the compound interest accrued on an amount of ₹ 10000 @ per annum in two years if the interest is compounded half-yearly ?  
 (a) ₹ 4400 (b) ₹ 4600 (c) ₹ 4641  
 (d) ₹ 4680 (e) None of these
28. What will be the difference between the simple interest and compound interest earned on a sum of ₹ 985.00 at the rate of 14% per annum at the end of two years ?  
 (a) ₹ 16.408 (b) ₹ 14.214 (c) ₹ 19.218  
 (d) ₹ 17.405 (e) None of these
29. The simple interest on a certain sum of money for 4 years at 4 per cent per annum exceeds the compound interest on the same sum for 3 years at 5 per cent annum by ₹ 57. Find the sum.  
 (a) 24000 (b) 25000 (c) 26000  
 (d) 3000 (e) 40000
30. A sum of money at compound interest amounts in two years to ₹ 2809, and in three years to ₹ 2977.54. Find the rate of interest and the original sum.  
 (a) 2000 (b) 2100 (c) 2200  
 (d) 2500 (e) 3000
31. A sum is invested at compound interest payable annually. The interest in two successive years was ₹ 225 and ₹ 236.25. Find the rate of interest.  
 (a) 2% (b) 3% (c) 5%  
 (d) 9% (e) 11%
32. A merchant commences with a certain capital and gains annually at the rate of 25 p.c. At the end of 3 years he has ₹ 10,000. What was his original capital ?  
 (a) 5120 (b) 5353 (c) 5456  
 (d) 5657 (e) 5757
33. In what time will 6250 amount to ₹ 6632.55 at 4 p.c. compound interest payable half-yearly?  
 (a)  $\frac{3}{5}$  (b)  $\frac{3}{2}$  (c)  $\frac{3}{4}$   
 (d)  $\frac{5}{2}$  (e)  $\frac{9}{11}$
34. What sum of money at compound interest will amount to ₹ 2249.52 in 3 years if the rate of interest is 3% for the first year, 4% for the second year, and 5% for the third year?  
 (a) 2000 (b) 4000 (c) 3000  
 (d) 5000 (e) 7000
35. If the simple interest on a certain sum of money for 3 years at 5% is ₹ 150, find the corresponding CI.  
 (a) 197 (b) 157.62 (c) 137.36  
 (d) 117.17 (e) 127.34

<b>RESPONSE GRID</b>	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)
	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)
	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)
	31. (a)(b)(c)(d)(e)	32. (a)(b)(c)(d)(e)	33. (a)(b)(c)(d)(e)	34. (a)(b)(c)(d)(e)	35. (a)(b)(c)(d)(e)





**PROBLEMS ON AGES**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. The average age of a man and his son is 16 years. The ratio of their ages is 15 : 1 respectively. What is the son's age?  
(a) 30 years (b) 32 years (c) 2 years  
(d) 4 years (e) None of these
2. The average age of a lady and her daughter is 28.5. The ratio of their ages is 14 : 5 respectively. What is the daughters age?  
(a) 12 years (b) 15 years  
(c) 18 years (d) Cannot be determined  
(e) None of these
3. Present age of Sudha and Neeta are in the ratio of 6 : 7 respectively. Five years ago their ages were in the ratio of 5 : 6 respectively. What is Sudha's present age?  
(a) 30 years (b) 35 years  
(c) 40 years (d) Cannot be determined  
(e) None of these
4. Average age of 36 children of the class is 15 years. 12 more children joined whose average age is 16 years. What is the average age of all the 48 children together?  
(a) 15.25 years (b) 15.5 years (c) 15.3 years  
(d) 15.4 years (e) None of these
5. Two years ago the ratio of the ages of Swati and Khyati was 5 : 7 respectively. Two years hence the ratio of their ages will be 7 : 9 respectively. What is the present age of Khyati?  
(a) 16 years (b) 14.5 years  
(c) 12 years (d) Cannot be determined  
(e) None of these
6. The age of a man is 4 times that of his son. 5 yrs ago, the man was nine times as old as his son was at that time. What is the present age of the man?  
(a) 28 yrs (b) 32 yrs (c) 40 yrs  
(d) 42 yrs (e) None of these
7. After 5 yrs, the age of a father will be thrice the age of his son, whereas five years ago, he was 7 times as old as his son was. What are their present ages?  
(a) 30 yrs (b) 40 yrs (c) 50 yrs  
(d) 60 yrs (e) None of these
8. 10 Yrs ago, Sita's mother was 4 times older than her daughter. After 10 yrs, the mother will be two times older than the daughter. What is the present age of Sita?  
(a) 10 yrs (b) 30 yrs (c) 20 yrs  
(d) 40 yrs (e) None of these
9. Ten yrs ago, A was half of B in age. If the ratio of their present ages is 3 : 4, what will be the total of their present ages?  
(a) 25 (b) 35 (c) 45  
(d) 50 (e) None of these
10. The sum of the ages of a mother and her daughter is 50 yrs. Also 5 yrs ago, the mother's age was 7 times the age of the daughter. What are the present ages of the mother and the daughter?  
(a) 35,5 (b) 40,10 (c) 30,20  
(d) 25,15 (e) None of these
11. The ratio of the father's age to the son's age is 4 : 1. The product of their ages is 196. What will be the ratio of their ages after 5 years?  
(a) 7:3 (b) 14:9 (c) 11:4  
(d) 17:3 (e) None of these
12. The ratio of Rita's age to the age of her mother is 3 : 11. The difference of their ages is 24 yrs. What will be the ratio of their ages after 3 yrs?  
(a) 1:2 (b) 1:3 (c) 3:7  
(d) 2:5 (e) None of these
13. A man's age is 125% of what it was 10 years ago, but  $83\frac{1}{3}\%$  of what it will be after 10 years. What is his present age?  
(a) 30 yrs (b) 40 yrs (c) 50 yrs  
(d) 60 yrs (e) None of these
14. The age of a man is three times the sum of the ages of his two sons. Five years hence, his age will be double of the sum of the ages of his sons. The father's present age is  
(a) 40 years (b) 45 years (c) 50 years  
(d) 55 years (e) 65 years
15. The ratio between the present ages of P and Q is 3 : 4 respectively. Four years hence Q will be 5 years older than P. What is P's present age?  
(a) 15 years (b) 20 years  
(c) 25 years (d) Cannot be determined  
(e) None of these

**RESPONSE GRID**

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| 1. a b c d e  | 2. a b c d e  | 3. a b c d e  | 4. a b c d e  | 5. a b c d e  |
| 6. a b c d e  | 7. a b c d e  | 8. a b c d e  | 9. a b c d e  | 10. a b c d e |
| 11. a b c d e | 12. a b c d e | 13. a b c d e | 14. a b c d e | 15. a b c d e |

16. Present ages of Rama and Shyama are in the ratio of 4 : 5 respectively. Five years hence the ratio of their ages becomes 5 : 6 respectively. What is Rama's present age?  
 (a) 25 years                      (b) 22 years                      (c) 20 years  
 (d) 30 years                      (e) None of these
17. In a family, a couple has a son and daughter. The age of the father is three times that of his daughter and the age of the son is half of his mother. The wife is nine years younger to her husband and the brother is seven years older than his sister. What is the age of the mother?  
 (a) 40 years                      (b) 45 years                      (c) 50 years  
 (d) 60 years                      (e) 65 years
18. Ram's present age is three times his son's present age and two-fifth of his father's present age. The average of the present ages of all of them is 46 years. What is the difference between the Ram's son's present age and Ram's father's present age?  
 (a) 68 years                      (b) 88 years  
 (c) 58 years                      (d) Cannot be determined  
 (e) None of these
19. Abhay's age after six years will be three-seventh of his father's age. Ten years ago, the ratio of their ages was 1 : 5. What is Abhay's father's age at present?  
 (a) 30 yrs.                      (b) 40 yrs.                      (c) 50 yrs.  
 (d) 60 yrs.                      (e) 70 years
20. The present ages of three persons are in proportions 4 : 7 : 9. Eight years ago, the sum of their ages was 56. Find their present ages (in years).  
 (a) 8, 20, 28                      (b) 16, 28, 36                      (c) 20, 35, 45  
 (d) 25, 30, 40                      (e) None of these
21. Tanya's grandfather was 8 times older to her 16 years ago. He would be 3 times of her age 8 years from now. Eight years ago, what was the ratio of Tanya's age to that of her grandfather?  
 (a) 1 : 2                      (b) 1 : 5                      (c) 3 : 8  
 (d) 11 : 53                      (e) None of these
22. Q is as much younger than R as he is older than T. If the sum of the ages of R and T is 50 years, what is definitely the difference between R and Q's age?  
 (a) 1 year                      (b) 2 years                      (c) 25 years  
 (d) Data inadequate                      (e) None of these
23. The sum of the ages of a father and his son is 45 years. Five years ago, the product of their ages is 34. Find the present age of father.  
 (a) 32 years                      (b) 36 years                      (c) 38 years  
 (d) 40 years                      (e) 39 years
24. The sum of the ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?  
 (a) 4 years                      (b) 8 years                      (c) 10 years  
 (d) 12 years                      (e) None of these
25. If 6 years are subtracted from the present age of Gagan and the remainder is divided by 18, then the present age of his grandson Anup is obtained. If Anup is 2 years younger to Madan whose age is 5 years, then what is Gagan's present age?  
 (a) 48 years                      (b) 60 years                      (c) 84 years  
 (d) 96 years                      (e) 100 years
26. The ratio between the school ages of Neelam and Shaan is 5 : 6 respectively. If the ratio between the one-third age of Neelam and half of Shaan's age is 5 : 9, then what is the school age of Shaan?  
 (a) 25 years  
 (b) 30 years  
 (c) Cannot be determined  
 (d) 35 years  
 (e) None of these
27. A is two years older than his son. In two years, his age will be twice the age of his son. The present age of the son is:  
 (a) 7                      (b) 8                      (c) 9  
 (d) 10                      (e) 11
28. Eighteen years ago, a father was three times as old as his son. Now the father is only twice as old as his son. Then the sum of the present ages of the son and the father is:  
 (a) 54                      (b) 72                      (c) 105  
 (d) 108                      (e) 116
29. One year ago, Preeti was four times as old as her daughter Sonal. Six years hence, Preeti's age will exceed her daughter's age by 9 years. The ratio of the present ages of Preeti and her daughter is :  
 (a) 9 : 2                      (b) 11 : 3                      (c) 12 : 5  
 (d) 13 : 4                      (e) 17 : 7
30. The present age of the father and the son are in the ratio of 8:3. After 12 years the ratio of their ages will be 2:1. What is the sum of the present age of the father and the son?  
 (a) 66yrs                      (b) 70yrs                      (c) 74yrs  
 (d) 78yrs                      (e) 80yrs.

<b>RESPONSE GRID</b>	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)
	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)
	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)



Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

1. Find  $\log_5 \sqrt[3]{5}$ .  
 (a)  $\frac{1}{2}$  (b)  $\frac{1}{5}$  (c)  $\frac{1}{3}$   
 (d)  $\frac{1}{15}$  (e) None of these
2. If  $\log_8 x + \log_8 \frac{1}{6} = \frac{1}{3}$ , then find the value of  $x$ .  
 (a) 18 (b) 24 (c) 16  
 (d) 12 (e) None of these
3. Find the value of  $\frac{1}{2} \log_{10} 25 - 2 \log_{10} 3 + \log_{10} 18$ .  
 (a) 18 (b) 1 (c)  $\log_{10} 3$   
 (d)  $\log_{10} 9$  (e) None of these
4.  $\frac{\log_8 17}{\log_9 23} - \frac{\log_{2\sqrt{2}} 17}{\log_3 23} =$   
 (a)  $\frac{17}{8}$  (b)  $\frac{2}{3}$  (c)  $\frac{8}{9}$   
 (d) 0 (e) None of these
5. Simplify:  

$$\left[ \frac{1}{\log_{xy}(xyz)} + \frac{1}{\log_{yz}(xyz)} + \frac{1}{\log_{zx}(xyz)} \right]$$
 (a) 4 (b) 5 (c) 3  
 (d) 2 (e) None of these
6. If  $a = \log_{24} 12$ ,  $b = \log_{36} 24$ ,  $C = \log_{48} 36$ . Then  $1 + abc$  is equal to  
 (a)  $2ac$  (b)  $2bc$  (c)  $2ab$   
 (d)  $2abc$  (e) None of these
7. If  $\log 2 = 0.30103$ , then find the number of digits in  $2^{56}$ .  
 (a) 13 (b) 15 (c) 17  
 (d) 19 (e) None of these
8. If  $A = \log_2 \log_2 \log_4 256 + 2 \log_{\sqrt{2}} 2$ , then A is equal to  
 (a) 2 (b) 3 (c) 5  
 (d) 7 (e) None of these
9. If  $\log_{10} x - \log_{10} \sqrt{x} = 2 \log_x 10$ , then a possible value of  $x$  is given by  
 (a) 10 (b)  $\frac{1}{100}$  (c)  $\frac{1}{1000}$   
 (d)  $\frac{1}{10000}$  (e) None of these
10.  $\log 216 \sqrt{6}$  to the base 6 is  
 (a) 3 (b)  $\frac{3}{2}$  (c)  $\frac{7}{2}$   
 (d)  $\frac{2}{7}$  (e) None of these
11. If  $\log_7 \log_5 (\sqrt{x} + 5 + \sqrt{x}) = 0$ , find the value of  $x$ .  
 (a) 1 (b) 0 (c) 2  
 (d) -2 (e) None of these
12. If  $\log_a b = \frac{1}{2}$ ,  $\log_b c = \frac{1}{3}$  and  $\log_c a = \frac{k}{5}$ , then the value of  $k$  is  
 (a) 25 (b) 35 (c) 30  
 (d) 20 (e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
 6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
 11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e)

13. If  $\log_a(ab) = x$ , then  $\log_b(ab)$  is
- (a)  $\frac{1}{x}$                       (b)  $\frac{x}{x+1}$                       (c)  $\frac{x}{x-1}$
- (d)  $\frac{x}{1-x}$                       (e) None of these

14. If  $\log_8 x + \log_8 \frac{1}{6} = \frac{1}{3}$ , then the value of  $x$  is
- (a) 18                      (b) 24                      (c) 16
- (d) 12                      (e) None of these

15. What is the value of  $[\log_{10}(5\log_{10} 100)]^2$
- (a) 4                      (b) 3                      (c) 2
- (d) 1                      (e) None of these

16. What is the value of
- $$\left(\frac{1}{3}\log_{10} 125 - 2\log_{10} 4 + \log_{10} 32 + \log_{10} 1\right)$$
- (a) 0                      (b)  $\frac{1}{5}$                       (c) 1
- (d)  $\frac{2}{5}$                       (e) None of these

17. What is the value of
- $$\frac{[\log_{13}(10)]}{[\log_{169}(10)]}$$
- (a)  $\frac{1}{2}$                       (b) 2                      (c) 1
- (d)  $\log_{10} 13$                       (e) None of these

18. What is the value of
- $$2\log(5/8) + \log(128/125) + \log(5/2)$$
- (a) 0                      (b) 1                      (c) 2
- (d) 5                      (e) None of these

19. What is the value of  $\log_{100} 0.11$
- (a) 1/2                      (b) -1/2                      (c) -2
- (d) 2                      (e) None of these

20. What is the value of
- $$\left(\log_{\frac{1}{2}} 2\right) \left(\log_{\frac{1}{3}} 3\right) \left(\log_{\frac{1}{4}} 4\right) \dots \left(\log_{\frac{1}{1000}} 1000\right)$$
- (a) 1                      (b) -1                      (c) 1 or -1
- (d) 0                      (e) None of these



## LINEAR EQUATIONS

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

- If  $x + y = 23$  and  $xy = 126$ ; what is the value of  $(x)^2 + (y)^2$ ?
  - 250
  - 317
  - 340
  - Cannot be determined
  - None of these
- If  $7x + 5y = 20$  and  $12x + 5y = 75$ , what is the value of  $xy$ ?
  - 25
  - 18
  - 30
  - Cannot be determined
  - None of these
- Perimeter of a rectangle is 40 cms and the length and the breadth are in the ratio of 3 : 2 respectively. What is the area of rectangle in square square cm?
  - 72
  - 98
  - 84
  - 96
  - None of these
- If  $2x + 3y = 87$  and  $3x - 3y = 48$ , what is the value of  $x$ ?
  - 11
  - 29
  - 72
  - 28
  - None of these
- Ganeshi's monthly income is twice Jassi's monthly income. Two-third of Jassi's monthly income is equal to Sukhvinder's monthly income. If Sukhvinder's annual income is ₹ 2.34 lakhs, what is Ganeshi's monthly income?
  - ₹ 14,625
  - ₹ 29,250
  - ₹ 58,500
  - ₹ 28,230
  - None of these
- In a class of 30 students and 2 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 30% of the total number of students. How many sweets were there?
  - 188
  - 180
  - 208
  - 178
  - None of these
- If  $A = x^2 - y^2$ ,  $B = 20$  and  $x + y = 10$ , then
  - $A$  is greater than  $B$
  - $B$  is greater than  $A$
  - $A$  is equal to  $B$
  - It is not possible to compare  $A$  and  $B$  as the data provided is inadequate
  - None of these
- If  $x + 2y = 2x + y$ , then  $x^2 / y^2$  is equal to
  - 0
  - 1
  - 2
  - 4
  - None of these
- A club has 108 members. Two-thirds of them are men and the rest are women. All members are married except for 9 women members. How many married women are there in the club?
  - 20
  - 24
  - 27
  - 30
  - None of these
- In a class there are 18 boys who are over 160 cm tall. If these boys constitute three fourths of the boys and the total number of boys is two-third of the number of students in the class, then what is the number of girls in the class?
  - 6
  - 12
  - 18
  - 24
  - None of these
- A railway half-ticket costs half the full fare. But the reservation charge on the half-ticket is the same as that on full ticket. One reserved first-class ticket for a journey between two stations is ₹ 525 and the cost of one full and one-half reserved first class tickets is ₹. 850. What is the reservation charge?
  - ₹ 125
  - ₹ 200
  - ₹ 145
  - Cannot be determined
  - None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
 6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)    9. (a)(b)(c)(d)(e)    10. (a)(b)(c)(d)(e)  
 11. (a)(b)(c)(d)(e)

12. Krishna has some hens and some goats. If the total number of animal heads are 81 and the total number of animal legs are 234, how many goats does Krishna have?  
 (a) 45 (b) 24  
 (c) 36 (d) Cannot be determined  
 (e) None of these
13. The difference between two numbers is 3 and the difference between their squares is 63. Which is the larger number?  
 (a) 12 (b) 9  
 (c) 15 (d) Cannot be determined  
 (e) None of these
14. The difference between a two-digit number and the number obtained by interchanging the two digits of the number is 9. What is the difference between the two digits of the number?  
 (a) 3 (b) 2  
 (c) 1 (d) Cannot be determined  
 (e) None of these
15. There are some parrots and some tigers in a forest. If the total number of animal heads in the forest is 858 and the total number of animal legs is 1,846, what is the number of parrots in the forest?  
 (a) 845 (b) 833  
 (c) 800 (d) Cannot be determined  
 (e) None of these
16. The bus fare for one person is ₹ 420 from Agra to Aligarh and the train fare between the same places for one person is equal to three-fourths the bus fare for two persons between the same places. What is the total fare paid by 3 persons travelling by bus and 4 persons travelling by train between the two places?  
 (a) ₹ 3,360 (b) ₹ 3,460 (c) ₹ 3,440  
 (d) ₹ 3,406 (e) None of these
17. Two bus tickets from city A to B and three tickets from city A to C cost Rs. 77 but three tickets from city A to B and two tickets from city A to C cost ₹73. What are the fares for cities B and C from A ?  
 (a) ₹ 4, ₹ 23 (b) ₹ 13, ₹17 (c) ₹ 15, ₹. 14  
 (d) ₹ 17, ₹13 (e) None of these
18. I have a few sweets to be distributed. If I keep 2, 3 or 4 in a pack, I am left with one sweet. If I keep 5 in a pack, I am left with none. What is the minimum number of sweets I have to pack and distribute ?  
 (a) 25 (b) 37 (c) 54  
 (d) 65 (e) None of these
19. A player holds 13 cards of four suits, of which seven are black and six are red. There are twice as many diamonds as spades and twice as many hearts as diamonds. How many clubs does he hold ?  
 (a) 4 (b) 5 (c) 6  
 (d) 7 (e) None of these
20. In a family, the father took 1/4 of the cake and he had 3 times as much as each of the other members had. The total number of family members is  
 (a) 3 (b) 7 (c) 10  
 (d) 12 (e) None of these

<b>RESPONSE GRID</b>	<b>12.</b> (a)(b)(c)(d)(e) <b>13.</b> (a)(b)(c)(d)(e) <b>14.</b> (a)(b)(c)(d)(e) <b>15.</b> (a)(b)(c)(d)(e) <b>16.</b> (a)(b)(c)(d)(e)
	<b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e)



**101 SPEED TEST**

20

QUADRATIC EQUATIONS

**Max. Marks : 20**

**No. of Qs. 20**

**Time : 20 min.**

**Date : ...../...../.....**

1. If  $x^2 + 7x + 12 = 0$  and  $y^2 + 9y + 20 = 0$ , then what is the relation between  $x$  and  $y$ ?

- (a)  $x > y$                       (b)  $x < y$   
 (c)  $x \geq y$                       (d)  $x \leq y$   
 (e) None of these

**DIRECTIONS (Q. 2-6):** In each of these questions, two equations numbered I and II are given. You have to solve both the equations and –

Give answer (a) if  $x < y$

Give answer (b) if  $x \leq y$

Give answer (c) if  $x > y$

Give answer (d) if  $x \geq y$

Give answer (e) if  $x = y$  or the relationship cannot be established.

2. **I.**  $x^2 + 13x + 42 = 0$

**II.**  $y^2 + 19y + 90 = 0$

3. **I.**  $x^2 + 15x + 56 = 0$

**II.**  $y^2 - 23y + 132 = 0$

4. **I.**  $x^2 + 7x + 12 = 0$

**II.**  $y^2 + 6y + 8 = 0$

5. **I.**  $x^2 - 22x + 120 = 0$

**II.**  $y^2 - 26y + 168 = 0$

6. **I.**  $x^2 + 12x + 32 = 0$

**II.**  $y^2 + 17y + 72 = 0$

**DIRECTIONS (Q. 7-13):** In the following questions, two equations numbered I and II are given. You have to solve both the equations and –

Give answer (a) If  $x > y$

Give answer (b) If  $x \geq y$

Give answer (c) If  $x < y$

Give answer (d) If  $x \leq y$

Give answer (e) If  $x = y$  or the relationship cannot be established.

7. **I.**  $x^2 - x - 12 = 0$

**II.**  $y^2 + 5y + 6 = 0$

8. **I.**  $x^2 - 8x + 15 = 0$

**II.**  $y^2 - 3y + 2 = 0$

9. **I.**  $x^2 - 32 = 112$

**II.**  $y - \sqrt{169} = 0$

10. **I.**  $x - \sqrt{121} = 0$

**II.**  $y^2 - 121 = 0$

11. **I.**  $x^2 - 16 = 0$

**II.**  $y^2 - 9y + 20 = 0$

12. **I.**  $\frac{3}{\sqrt{x}} + \frac{4}{\sqrt{x}} = \sqrt{x}$

**II.**  $y^2 = \frac{(7)^{\frac{5}{2}}}{\sqrt{y}} = 0$

RESPONSE  
GRID

- |                            |                            |                           |                           |                            |
|----------------------------|----------------------------|---------------------------|---------------------------|----------------------------|
| <b>1.</b> (a)(b)(c)(d)(e)  | <b>2.</b> (a)(b)(c)(d)(e)  | <b>3.</b> (a)(b)(c)(d)(e) | <b>4.</b> (a)(b)(c)(d)(e) | <b>5.</b> (a)(b)(c)(d)(e)  |
| <b>6.</b> (a)(b)(c)(d)(e)  | <b>7.</b> (a)(b)(c)(d)(e)  | <b>8.</b> (a)(b)(c)(d)(e) | <b>9.</b> (a)(b)(c)(d)(e) | <b>10.</b> (a)(b)(c)(d)(e) |
| <b>11.</b> (a)(b)(c)(d)(e) | <b>12.</b> (a)(b)(c)(d)(e) |                           |                           |                            |

13. **I.**  $x^2 + 11x + 30 = 0$   
**II.**  $y^2 + 7y + 12 = 0$

**DIRECTIONS (Q. 14 - 17):** In each of these questions, two are given. You have to solve these equations and find out the values of  $x$  and  $y$  and—

Give answer

- (a) If  $x < y$
- (b) If  $x > y$
- (c) If  $x \leq y$
- (d) If  $x \geq y$
- (e) If  $x = y$

14. **I.**  $16x^2 + 20x + 6 = 0$   
**II.**  $10y^2 + 38y + 24 = 0$

15. **I.**  $18x^2 + 18x + 4 = 0$   
**II.**  $12y^2 + 29y + 14 = 0$

16. **I.**  $8x^2 + 6x = 5$   
**II.**  $12y^2 - 22y + 8 = 0$

17. **I.**  $17x^2 + 48x = 9$   
**II.**  $13y^2 - 32y - 21$

**DIRECTIONS (Q. 18-20):** In each of these questions, two equations numbered I and II are given. You have to solve both the equations and —

Give answer

- (a) If  $x > y$
- (b) If  $x \geq y$
- (c) If  $x < y$
- (d) If  $x \leq y$
- (e) If  $x = y$  or the relationship cannot be established.

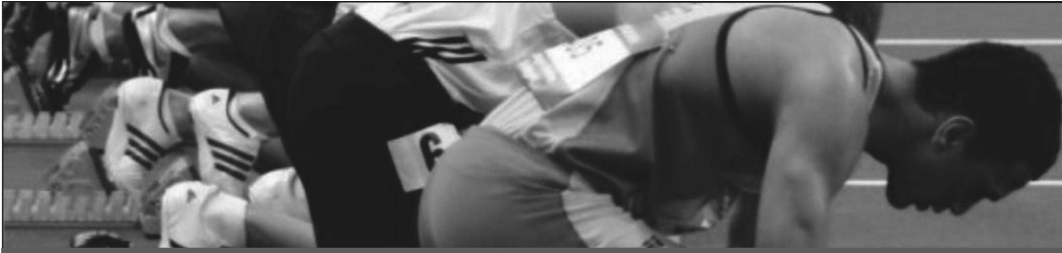
18. **I.**  $\sqrt{25x^2} - 125 = 0$   
**II.**  $\sqrt{361y} + 95 = 0$

19. **I.**  $\frac{5}{7} - \frac{5}{21} = \frac{\sqrt{x}}{42}$   
**II.**  $\frac{\sqrt{y}}{4} + \frac{\sqrt{y}}{16} = \frac{250}{\sqrt{y}}$

20. **I.**  $5x^2 - 18x + 9 = 0$   
**II.**  $3y^2 + 5y - 2 = 0$

<b>RESPONSE GRID</b>	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)
	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)		





**101 SPEED TEST**

**21**

**RATIONAL EXPRESSIONS**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- If all the fractions  $\frac{3}{5}, \frac{1}{8}, \frac{8}{11}, \frac{4}{9}, \frac{2}{7}, \frac{5}{7}$  and  $\frac{5}{12}$  are arranged in the descending order of their values, which one will be the third?
  - $\frac{1}{8}$
  - $\frac{4}{9}$
  - $\frac{5}{12}$
  - $\frac{8}{11}$
  - None of these
- The value of which of the following fractions is less than twenty per cent?
  - $\frac{5}{6}$
  - $\frac{2}{3}$
  - $\frac{2}{5}$
  - $\frac{1}{4}$
  - $\frac{2}{11}$
- Out of the fractions  $\frac{4}{5}, \frac{8}{9}, \frac{6}{7}, \frac{1}{3}$  and  $\frac{3}{8}$  what is the sum of the largest and smallest fractions?
  - $2\frac{5}{7}$
  - $1\frac{3}{5}$
  - $1\frac{1}{7}$
  - $2\frac{7}{9}$
  - None of these
- Out of the fractions  $\frac{4}{9}, \frac{5}{11}, \frac{3}{7}, \frac{1}{4}$  and  $\frac{2}{5}$  what is the difference between the largest and smallest fractions?
  - $\frac{2}{35}$
  - $\frac{1}{45}$
  - $\frac{3}{35}$
  - $\frac{4}{45}$
  - None of these
- Out of the fractions  $\frac{5}{12}, \frac{7}{13}, \frac{4}{7}, \frac{4}{15}$  and  $\frac{9}{14}$  which is the third highest?
  - $\frac{5}{12}$
  - $\frac{7}{13}$
  - $\frac{4}{7}$
  - $\frac{4}{15}$
  - $\frac{9}{14}$
- Out of the fractions  $\frac{3}{7}, \frac{4}{9}, \frac{5}{11}, \frac{7}{12}$  and  $\frac{8}{15}$  which is the second highest fraction?
  - $\frac{3}{7}$
  - $\frac{4}{9}$
  - $\frac{5}{11}$
  - $\frac{7}{12}$
  - $\frac{8}{15}$
- Out of the fractions  $\frac{4}{9}, \frac{5}{14}, \frac{1}{2}, \frac{3}{4}$  and  $\frac{2}{3}$  which is the second highest fraction?
  - $\frac{1}{2}$
  - $\frac{5}{14}$
  - $\frac{4}{9}$
  - $\frac{3}{4}$
  - $\frac{2}{3}$
- Out of the fractions  $\frac{9}{31}, \frac{3}{17}, \frac{6}{23}, \frac{4}{11}$  and  $\frac{7}{25}$  which is the largest?
  - $\frac{9}{31}$
  - $\frac{3}{17}$
  - $\frac{6}{23}$
  - $\frac{4}{11}$
  - None of these
- Out of the fractions  $\frac{3}{7}, \frac{4}{9}, \frac{6}{11}, \frac{8}{13}$  and  $\frac{7}{15}$ , which is the second highest fraction?
  - $\frac{3}{7}$
  - $\frac{4}{9}$
  - $\frac{6}{11}$
  - $\frac{7}{15}$
  - None of these
- If the fractions  $\frac{3}{5}, \frac{5}{8}, \frac{16}{25}, \frac{4}{5}$  and  $\frac{9}{16}$  are arranged in ascending order of their values, which one will be the second?
  - $\frac{3}{5}$
  - $\frac{16}{25}$
  - $\frac{9}{16}$
  - $\frac{4}{5}$
  - $\frac{5}{8}$
- Out of the fractions  $\frac{6}{11}, \frac{13}{23}, \frac{15}{29}, \frac{3}{7}$  and  $\frac{4}{13}$  which is the third lowest fraction?
  - $\frac{6}{11}$
  - $\frac{13}{23}$
  - $\frac{15}{29}$
  - $\frac{3}{7}$
  - $\frac{4}{13}$
- If the fractions  $\frac{4}{5}, \frac{2}{7}, \frac{9}{13}, \frac{6}{11}$  and  $\frac{5}{9}$  are arranged in ascending order of their values, which one will be the second?
  - $\frac{6}{11}$
  - $\frac{4}{5}$
  - $\frac{2}{7}$
  - $\frac{5}{9}$
  - None of these
- Which of the following set of fractions has the fractions in descending order?
  - $\frac{2}{7}, \frac{3}{8}, \frac{1}{3}, \frac{4}{7}$
  - $\frac{1}{3}, \frac{2}{7}, \frac{3}{8}, \frac{4}{7}$
  - $\frac{2}{7}, \frac{1}{3}, \frac{3}{8}, \frac{4}{7}$
  - $\frac{2}{7}, \frac{1}{3}, \frac{4}{7}, \frac{3}{8}$
  - $\frac{4}{7}, \frac{3}{8}, \frac{1}{3}, \frac{2}{7}$

**RESPONSE  
GRID**

- |                     |                     |                     |                    |                     |
|---------------------|---------------------|---------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) |                    |                     |

14. If the fractions  $\frac{2}{3}, \frac{5}{7}, \frac{1}{6}, \frac{3}{8}, \frac{5}{11}, \frac{2}{7}$  and  $\frac{3}{5}$  are arranged in ascending order of their values, which fraction will be the fifth?  
 (a)  $\frac{3}{5}$  (b)  $\frac{2}{3}$  (c)  $\frac{1}{6}$  (d)  $\frac{5}{11}$   
 (e) None of these
15. Which set of fractions is in descending order?  
 (a)  $\frac{7}{8}, \frac{5}{7}, \frac{2}{3}, \frac{3}{5}$  (b)  $\frac{3}{5}, \frac{2}{3}, \frac{5}{7}, \frac{7}{8}$  (c)  $\frac{7}{8}, \frac{5}{7}, \frac{3}{5}, \frac{2}{3}$   
 (d)  $\frac{2}{3}, \frac{3}{5}, \frac{5}{7}, \frac{7}{8}$  (e) None of these
16. Which of the following responses has the fractions in ascending order?  
 (a)  $\frac{5}{11}, \frac{3}{8}, \frac{4}{9}, \frac{2}{7}$  (b)  $\frac{5}{11}, \frac{4}{9}, \frac{3}{8}, \frac{2}{7}$  (c)  $\frac{2}{7}, \frac{3}{8}, \frac{4}{9}, \frac{5}{11}$   
 (d)  $\frac{2}{7}, \frac{4}{9}, \frac{3}{8}, \frac{5}{11}$  (e) None of these
17. If the fractions  $\frac{4}{9}, \frac{2}{7}, \frac{3}{8}, \frac{6}{13}$  and  $\frac{5}{11}$  are arranged in descending order, which fraction will be the second?  
 (a)  $\frac{4}{9}$  (b)  $\frac{2}{7}$  (c)  $\frac{3}{8}$  (d)  $\frac{6}{13}$  (e)  $\frac{5}{11}$
18. If the fractions  $\frac{9}{11}, \frac{7}{9}, \frac{5}{6}, \frac{4}{5}$  and  $\frac{11}{3}$  are arranged in ascending order, which one will be the fourth?  
 (a)  $\frac{9}{11}$  (b)  $\frac{7}{9}$  (c)  $\frac{5}{6}$  (d)  $\frac{4}{5}$  (e)  $\frac{11}{3}$
19. Which of the following has the fractions in ascending order?  
 (a)  $\frac{2}{7}, \frac{3}{5}, \frac{5}{11}, \frac{6}{17}$  (b)  $\frac{2}{7}, \frac{6}{17}, \frac{5}{11}, \frac{3}{5}$  (c)  $\frac{6}{17}, \frac{2}{7}, \frac{5}{11}, \frac{3}{5}$   
 (d)  $\frac{2}{7}, \frac{6}{17}, \frac{3}{5}, \frac{5}{11}$  (e) None of these
20. Which of the following has the fractions in descending order?  
 (a)  $\frac{5}{7}, \frac{9}{11}, \frac{7}{9}, \frac{3}{5}$  (b)  $\frac{3}{5}, \frac{5}{7}, \frac{7}{9}, \frac{9}{11}$   
 (c)  $\frac{9}{11}, \frac{7}{9}, \frac{5}{7}, \frac{3}{5}$  (d)  $\frac{9}{11}, \frac{5}{7}, \frac{3}{5}, \frac{7}{9}$   
 (e) None of these
21. Simplify:  $5 + \frac{1}{6 + \frac{1}{8 + \frac{1}{10}}}$   
 (a)  $3\frac{81}{496}$  (b)  $4\frac{71}{243}$  (c)  $5\frac{81}{496}$  (d)  $6\frac{80}{497}$   
 (e) None of these

22. Find out the missing figures (denoted by stars) in the following equations, the fractions being given in their lowest terms:  
 $2\frac{1}{2} - 3\frac{2}{3} + 1\frac{5}{6} - \frac{2}{*} = 0$   
 (a) 2 (b) 3 (c) 4  
 (d) 5 (e) None of these
23. Express the following recurring decimals into vulgar decimals.  
 $0.\overline{532}$   
 (a)  $\frac{231}{990}$  (b)  $\frac{532}{900}$  (c)  $\frac{532}{999}$  (d)  $\frac{524}{1000}$   
 (e) None of these
24. Express the following as vulgar fractions.  
 $5.00\overline{983}$   
 (a)  $5\frac{983}{99999}$  (b)  $5\frac{983}{99000}$  (c)  $5\frac{983}{100000}$   
 (d)  $5\frac{983}{99900}$  (e) None of these
25. Find  $17.\overline{83} + 0.00\overline{7} + 310.020\overline{2}$   
 (a)  $322.866\overline{38}$  (b)  $325.866\overline{38}$  (c)  $327.866\overline{38}$   
 (d)  $329.866\overline{38}$  (e) None of these
26. Find  $17.10\overline{86} - 7.984\overline{9}$   
 (a)  $8.123\overline{68}$  (b)  $9.123\overline{68}$  (c)  $9.423\overline{68}$   
 (d)  $10.123\overline{68}$  (e) None of these
27. What is  $27 \times 1.\overline{2} \times 5.526\overline{2} \times 0.\overline{6}$  equal to?  
 (a)  $121.\overline{57}$  (b)  $121.\overline{75}$  (c)  $121.\overline{75}$   
 (d)  $121.\overline{75}$  (e) None of these
28. Which one is the largest among the following?  
 (a)  $0.725$  (b)  $0.7\overline{25}$  (c)  $0.\overline{725}$   
 (d)  $0.\overline{725}$  (e) None of these
29. Which one of the following is correct?  
 (a)  $-\frac{7}{10} < -\frac{2}{3} < -\frac{5}{8}$  (b)  $-\frac{5}{8} < -\frac{2}{3} < -\frac{7}{10}$   
 (c)  $-\frac{5}{8} < -\frac{7}{10} < -\frac{2}{3}$  (d)  $-\frac{7}{10} < -\frac{5}{8} < -\frac{2}{3}$   
 (e) None of these
30. If  $2.5252525\dots = \frac{p}{q}$  (in the lowest form), then what is the value of  $\frac{q}{p}$ ?  
 (a) 0.4 (b) 0.42525 (c) 0.0396  
 (d) 0.396 (e) None of these

<b>RESPONSE GRID</b>	<b>14.</b> (a)(b)(c)(d)(e) <b>15.</b> (a)(b)(c)(d)(e) <b>16.</b> (a)(b)(c)(d)(e) <b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e)
	<b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e) <b>21.</b> (a)(b)(c)(d)(e) <b>22.</b> (a)(b)(c)(d)(e) <b>23.</b> (a)(b)(c)(d)(e)
	<b>24.</b> (a)(b)(c)(d)(e) <b>25.</b> (a)(b)(c)(d)(e) <b>26.</b> (a)(b)(c)(d)(e) <b>27.</b> (a)(b)(c)(d)(e) <b>28.</b> (a)(b)(c)(d)(e)
	<b>29.</b> (a)(b)(c)(d)(e) <b>30.</b> (a)(b)(c)(d)(e)



**101 SPEED TEST**

**22**

**PROBABILITY**

Max. Marks : 25

No. of Qs. 25

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1-3):** Study the given information carefully and answer the questions that follow.

A basket contains 4 red, 5 blue and 3 green marbles.

1. If two marbles are drawn at random, what is the probability that both are red ?  
 (a)  $\frac{3}{7}$                       (b)  $\frac{1}{2}$                       (c)  $\frac{2}{11}$   
 (d)  $\frac{1}{6}$                       (e) None of these
2. If three marbles are picked at random, what is the probability that at least one is blue ?  
 (a)  $\frac{7}{12}$                       (b)  $\frac{37}{44}$                       (c)  $\frac{5}{12}$   
 (d)  $\frac{7}{44}$                       (e) None of these
3. If three marbles are picked at random, what is the probability that either all are green or all are red ?  
 (a)  $\frac{7}{44}$                       (b)  $\frac{7}{12}$                       (c)  $\frac{5}{12}$   
 (d)  $\frac{1}{44}$                       (e) None of these
4. A basket contains three blue and four red balls. If three balls are drawn at random from the basket, what is the probability that all the three are either blue or red ?  
 (a) 1                      (b)  $\frac{1}{7}$                       (c)  $\frac{3}{14}$   
 (d)  $\frac{3}{28}$                       (e) None of these

**DIRECTIONS (Q. 5-9):** Study the following information carefully to answer the questions that follow.

A box contains 2 blue caps, 4 red caps, 5 green caps and 1 yellow cap.

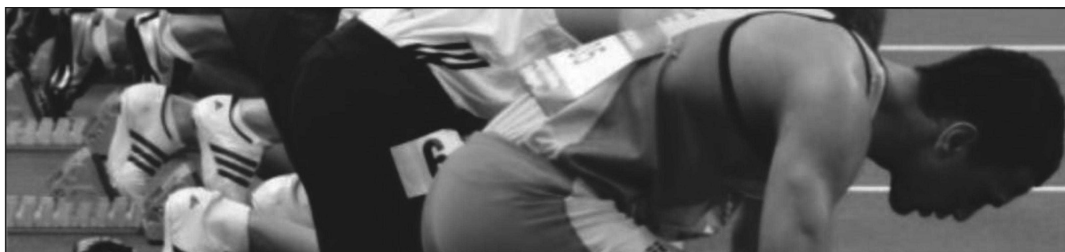
5. If two caps are picked at random, what is the probability that both are blue ?

- (a)  $\frac{1}{6}$                       (b)  $\frac{1}{10}$                       (c)  $\frac{1}{12}$
- (d)  $\frac{1}{45}$                       (e) None of these
6. If four caps are picked at random, what is the probability that none is green ?  
 (a)  $\frac{7}{99}$                       (b)  $\frac{5}{99}$                       (c)  $\frac{7}{12}$   
 (d)  $\frac{5}{12}$                       (e) None of these
7. If three caps are picked at random, what is the probability that two are red and one is green ?  
 (a)  $\frac{9}{22}$                       (b)  $\frac{6}{19}$                       (c)  $\frac{1}{6}$   
 (d)  $\frac{3}{22}$                       (e) None of these
8. If one cap is picked at random, what is the probability that it is either blue or yellow?  
 (a)  $\frac{2}{9}$                       (b)  $\frac{1}{4}$                       (c)  $\frac{3}{8}$   
 (d)  $\frac{6}{11}$                       (e) None of these
9. If two caps are picked at random, what is the probability that at least one is red ?  
 (a)  $\frac{1}{3}$                       (b)  $\frac{16}{21}$                       (c)  $\frac{19}{33}$   
 (d)  $\frac{7}{19}$                       (e) None of these
10. An urn contains 3 red and 4 green marbles. If three marbles are picked at random, what is the probability that two green and one is red ?  
 (a)  $\frac{3}{7}$                       (b)  $\frac{18}{35}$                       (c)  $\frac{5}{14}$   
 (d)  $\frac{4}{21}$                       (e) None of these

<b>RESPONSE GRID</b>	1. (a)(b)(c)(d)(e)	2. (a)(b)(c)(d)(e)	3. (a)(b)(c)(d)(e)	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)
	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)

11. Two packs of cards are thoroughly mixed and shuffled and two cards are drawn at random, one after the other. What is the probability that both of them are jacks?  
 (a)  $1/13$  (b)  $2/13$  (c)  $7/1339$   
 (d)  $1/169$  (e)  $\frac{1}{179}$
12. A student has 60% chance of passing in English and 54% chance of passing in both English and Mathematics. What is the percentage probability that he will fail in Mathematics?  
 (a) 12 (b) 36 (c) 4  
 (d) 10 (e) 14
13. When three coins are tossed together, the probability that all coins have the same face up, is  
 (a)  $\frac{1}{3}$  (b)  $\frac{1}{6}$  (c)  $\frac{1}{8}$   
 (d)  $\frac{1}{12}$  (e)  $\frac{1}{17}$
14. Three students are picked at random from a school having a total of 1000 students. The probability that these three students will have identical date and month of their birth, is  
 (a)  $\frac{3}{1000}$  (b)  $\frac{3}{365}$  (c)  $\frac{1}{(365)^2}$   
 (d)  $\frac{2}{365}$  (e) None of these
15. Ten identical particles are moving randomly inside a closed box. What is the probability that at any given point of time all the ten particles will be lying in the same half of the box?  
 (a)  $\frac{1}{2}$  (b)  $\frac{1}{5}$  (c)  $\frac{2}{9}$   
 (d)  $\frac{2}{11}$  (e)  $\frac{9}{42}$
16. 3 digits are chosen at random from 1,2,3,4,5,6,7,8 and 9 without repeating any digit. What is the probability that their product is odd?  
 (a)  $2/3$  (b)  $5/108$  (c)  $5/42$   
 (d)  $8/42$  (e)  $9/42$
17. Each of the 3 persons is to be given some identical items such that product of the numbers of items received by each of the three persons is equal to 30. In how many maximum different ways can this distribution be done?  
 (a) 21 (b) 24 (c) 27  
 (d) 33 (e) 35
18. A dice is thrown. What is the probability that the number shown on the dice is not divisible by 3?  
 (a)  $\frac{1}{3}$  (b)  $\frac{2}{3}$  (c)  $\frac{1}{4}$   
 (d)  $\frac{2}{5}$  (e) None of these
19. There are 4 boys and 4 girls. They sit in a row randomly. What is the chance that all the girls do not sit together?  
 (a)  $\frac{12}{13}$  (b)  $\frac{13}{14}$  (c)  $\frac{14}{15}$   
 (d)  $\frac{15}{16}$  (e) None of these
20. The letters of the word 'ARTICLE' are arranged in different ways randomly. What is the chance that the vowels occupy the even places?  
 (a)  $\frac{1}{34}$  (b)  $\frac{1}{35}$  (c)  $\frac{1}{36}$   
 (d)  $\frac{1}{37}$  (e) None of these
21. A committee of 4 is to be formed from among 4 girls and 5 boys. What is the probability that the committee will have number of boys less than number of girls?  
 (a)  $\frac{1}{4}$  (b)  $\frac{1}{5}$  (c)  $\frac{1}{6}$   
 (d)  $\frac{1}{7}$  (e) None of these
22. A box contains 4 black balls, 3 red balls and 5 green balls. 2 balls are drawn from the box at random. What is the probability that both the balls are of the same colour?  
 (a)  $\frac{47}{68}$  (b)  $\frac{1}{6}$  (c)  $\frac{19}{66}$   
 (d)  $\frac{2}{11}$  (e) None of these
23. In a box carrying one dozen of oranges, one-third have become bad. If 3 oranges are taken out from the box at random, what is the probability that at least one orange out of the three oranges picked up is good?  
 (a)  $\frac{1}{55}$  (b)  $\frac{54}{55}$  (c)  $\frac{45}{55}$   
 (d)  $\frac{3}{55}$  (e) None of these
24. A box contains 5 green, 4 yellow and 3 white marbles. 3 marbles are drawn at random. What is the probability that they are not of the same colour?  
 (a)  $\frac{13}{44}$  (b)  $\frac{41}{44}$  (c)  $\frac{13}{55}$   
 (d)  $\frac{152}{55}$  (e) None of these
25. Out of 15 students studying in a class, 7 are from Maharashtra, 5 from Karnataka and 3 from Goa. Four students are to be selected at random. What are the chances that at least one is from Karnataka?  
 (a)  $\frac{12}{13}$  (b)  $\frac{11}{13}$  (c)  $\frac{100}{15}$   
 (d)  $\frac{51}{15}$  (e) None of these

<b>RESPONSE GRID</b>	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)
	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)
	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)



101 SPEED TEST

23

## PERMUTATION &amp; COMBINATIONS

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- From amongst 36 teachers in a school, one principal and one vice-principal are to be appointed. In how many ways can this be done ?  
(a) 1260 (b) 1250 (c) 1240  
(d) 1800 (e) None of these
- A boy has 3 library cards and 8 books of his interest in the library. Of these 8, he does not want to borrow chemistry part II unless Chemistry part I is also borrowed. In how many ways can he choose the three books to be borrowed ?  
(a) 56 (b) 27 (c) 26  
(d) 41 (e) None of these
- In how many ways can six different rings be worn on four fingers of one hand ?  
(a) 10 (b) 12 (c) 15  
(d) 16 (e) None of these
- In how many ways can 7 persons be seated at a round table if 2 particular persons must not sit next to each other ?  
(a) 5040 (b) 240 (c) 480  
(d) 720 (e) None of these
- In how many different ways can the letters of the word 'MATHEMATICS' be arranged so that the vowels always come together ?  
(a) 10080 (b) 4989600 (c) 120960  
(d) 12960 (e) None of these
- The number of ways in which four letters of the word 'MATHEMATICS' can be arranged is  
(a) 136 (b) 2454 (c) 1680  
(d) 192 (e) None of these
- There are 4 candidates for the post of a lecturer in Mathematics and one is to be selected by votes of 5 men. The number of ways in which the votes can be given is  
(a) 24 (b) 36 (c) 40  
(d) 48 (e) None of these
- The number of ways in which 6 men and 5 women can dine at a round table if no two women are to sit together is given by  
(a)  $6! \times 5!$  (b)  $5! \times 4!$  (c) 30  
(d)  $7! \times 5!$  (e) None of these
- A student is to answer 10 out of 13 questions in an examination such that he must choose at least 4 from the first five questions. The number of choices available to him is  
(a) 140 (b) 280 (c) 196  
(d) 346 (e) None of these
- There are 100 students in a college class of which 36 are boys studying statistics and 13 girls not studying statistics. If there are 55 girls in all, then the probability that a boy picked up at random is not studying statistics, is  
(a)  $\frac{3}{5}$  (b)  $\frac{2}{5}$  (c)  $\frac{1}{5}$   
(d)  $\frac{4}{5}$  (e) None of these
- The number of ways in which 6 men and 5 women can dine at a round table if no two women are to sit together is given by :  
(a)  $6! \times 5!$  (b) 30 (c)  $5! \times 4!$   
(d)  $7! \times 5!$  (e) None of these
- A student is to answer 10 out of 13 questions in an examination such that he must choose at least four from the first five questions. The number of choices available to him is:  
(a) 140 (b) 196 (c) 280  
(d) 346 (e) None of these
- The number of ways in which a team of eleven players can be selected from 22 players including 2 of them and excluding 4 of them is:  
(a)  ${}^{16}C_{11}$  (b)  ${}^{16}C_5$  (c)  ${}^{16}C_9$   
(d)  ${}^{20}C_9$  (e) None of these
- In how many different ways can the letters of the word 'PRETTY' be arranged?  
(a) 120 (b) 36 (c) 360  
(d) 720 (e) None of these
- In how many different ways can the letters of the word 'CYCLE' be arranged?  
(a) 120 (b) 4240 (c) 30  
(d) 80 (e) None of these

RESPONSE  
GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. In how many different ways can the letters of the word TRUST be arranged?  
 (a) 240 (b) 120 (c) 80  
 (d) 25 (e) None of these

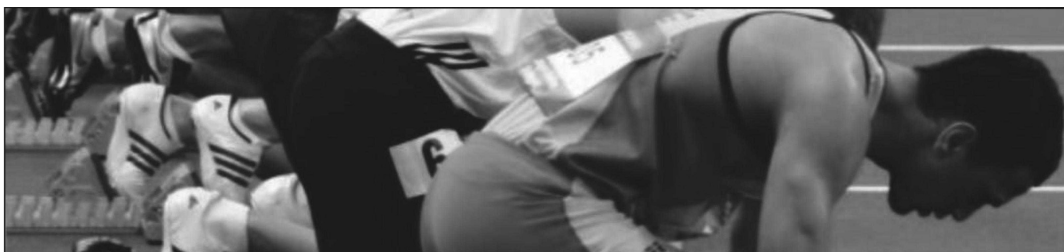
**DIRECTIONS (Qs.17 & 18):** Answer these questions on the basis of the information given below :

From a group of 6 men and 4 women a Committee of 4 persons is to be formed.

17. In how many different ways can it be done so that the committee has at least one woman?  
 (a) 210 (b) 225 (c) 195  
 (d) 185 (e) None of these
18. In how many different ways can it be done, so that the committee has at least 2 men?  
 (a) 210 (b) 225 (c) 195  
 (d) 185 (e) None of these
19. In how many ways can 5 boys be chosen from 6 boys and 4 girls so as to include exactly one girl?  
 (a) 252 (b) 210 (c) 126  
 (d) 90 (e) 60
20. In how many different ways can the letters of the word CORPORATION be arranged?  
 (a) 3326400 (b) 1663200 (c) 831600  
 (d) 415800 (e) 207900
21. In how many different ways can the letters of the word "COUNTRY" be arranged in such a way that the vowels always come together?  
 (a) 720 (b) 1440 (c) 2880  
 (d) 5040 (e) None of these
22. In how many different ways can the letters of the word 'PROBLEM' be arranged ?  
 (a) 5060 (b) 720 (c) 5040  
 (d) 980 (e) None of these
23. If two marbles are drawn at random, what is the probability that both are red?  
 (a)  $\frac{3}{7}$  (b)  $\frac{1}{2}$  (c)  $\frac{2}{11}$   
 (d)  $\frac{1}{6}$  (e) None of these

24. If three marbles are picked at random, what is the probability that at least one is blue?  
 (a)  $\frac{7}{12}$  (b)  $\frac{37}{44}$  (c)  $\frac{5}{12}$   
 (d)  $\frac{7}{44}$  (e) None of these
25. How many different ways can the letters in the word ATTEND be arranged?  
 (a) 60 (b) 120 (c) 240  
 (d) 80 (e) None of these
26. In how many different ways can the letters of the word 'OFFICES' be arranged?  
 (a) 2520 (b) 5040 (c) 1850  
 (d) 1680 (e) None of these
27. In how many different ways can the letters of the word 'ARMOUR' be arranged?  
 (a) 720 (b) 300 (c) 640  
 (d) 350 (e) None of these
28. The committee should consist of 2 Professors, 2 Teachers and 1 Reader?  
 (a) 450 (b) 225 (c) 55  
 (d) 90 (e) None of these
29. the committee should include all the 3 Readers?  
 (a) 90 (b) 180 (c) 21  
 (d) 55 (e) None of these
30. In how many different ways can 4 boys and 3 girls be arranged in a row such that all boys stand together and all the girls stand together?  
 (a) 75 (b) 576 (c) 288  
 (d) 24 (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)
	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)
	<b>26.</b> (a)(b)(c)(d)(e)	<b>27.</b> (a)(b)(c)(d)(e)	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)	<b>30.</b> (a)(b)(c)(d)(e)



**101 SPEED TEST**

**24**

**CLOCKS AND CALENDARS**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. The number of times in a day the Hour-hand and the Minute-hand of a clock are at right angles, is  
(a) 44 (b) 48 (c) 24  
(d) 12 (e) None of these
2. An accurate clock shows the time as 3.00. After hour hand has moved  $135^\circ$ , the time would be  
(a) 7.30 (b) 6.30 (c) 8.00  
(d) 9.30 (e) None of these
3. An accurate clock shows 8 O' clock in the morning. Throughout how many degrees will the hour hand rotate, when the clock shows 2 O' clock in the afternoon?  
(a)  $150^\circ$  (b)  $144^\circ$  (c)  $168^\circ$   
(d)  $180^\circ$  (e) None of these
4. March 1, 2008 was Saturday. Which day was it on March 1, 2002?  
(a) Thursday (b) Friday (c) Saturday  
(d) Sunday (e) None of these
5. How many times are an hour hand and a minute hand of a clock at right angles during their motion from 1.00 p.m. to 10.00 p.m.?  
(a) 9 (b) 10 (c) 18  
(d) 20 (e) None of these
6. At what approximate time between 4 and 5 am will the hands of a clock be at right angle?  
(a) 4 : 40 am (b) 4 : 38 am (c) 4 : 35 am  
(d) 4 : 39 am (e) None of these
7. At what time between 3 and 4 o'clock, the hands of a clock coincide?  
(a)  $16\frac{4}{11}$  minutes past 3  
(b)  $15\frac{5}{61}$  minutes past 3  
(c)  $15\frac{5}{60}$  minutes to 2  
(d)  $16\frac{4}{11}$  minutes to 4  
(e) None of these
8. At what time between 5.30 and 6 will the hands of a clock be at right angles?  
(a)  $43\frac{5}{11}$  min. past 5 (b)  $43\frac{7}{11}$  min. past 5  
(c) 40 min. past 5 (d) 45 min. past 5  
(e) None of these
9. At what time between 4 and 5 o'clock will the hands of a watch point in opposite directions?  
(a) 45 min. past 4 (b) 40 min. past 4  
(c)  $50\frac{4}{11}$  min. past 4 (d)  $54\frac{6}{11}$  min. past 4  
(e) None of these
10. How much does a watch lose per day, if its hands coincide every 64 minutes?  
(a)  $32\frac{8}{11}$  min. (b)  $36\frac{5}{11}$  min. (c) 90 min.  
(d) 96 min. (e) None of these
11. The last day of a century cannot be  
(a) Monday (b) Wednesday (c) Tuesday  
(d) Friday (e) None of these
12. Which of the following is not a leap year?  
(a) 700 (b) 800 (c) 1200  
(d) 2000 (e) None of these
13. How many days are there in x weeks x days?  
(a)  $7x^2$  (b)  $8x$  (c)  $14x$   
(d) 7 (e) None of these
14. It was Sunday on Jan 1, 2006. What was the day of the week on Jan 1, 2010?  
(a) Sunday (b) Saturday (c) Friday  
(d) Wednesday (e) None of these
15. On 8th Feb, 2005 it was Tuesday. What was the day of the week on 8th Feb, 2004?  
(a) Tuesday (b) Monday (c) Sunday  
(d) Wednesday (e) None of these

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. The calendar for the year 2007 will be the same for the year.
  - (a) 2014
  - (b) 2016
  - (c) 2017
  - (d) 2018
  - (e) None of these
17. Today is Monday. After 61 days, it will be
  - (a) Wednesday
  - (b) Saturday
  - (c) Tuesday
  - (d) Thursday
  - (e) None of these
18. What was the day of the week on 17th June, 1998?
  - (a) Monday
  - (b) Tuesday
  - (c) Wednesday
  - (d) Thursday
  - (e) None of these
19. If 21st July, 1999 is a wednesday, what would have been the day of the week on 21st July, 1947 ?
  - (a) Monday
  - (b) Sunday
  - (c) Thursday
  - (d) Saturday
  - (e) None of these
20. At an enquiry office at a railway station, a passenger was told that a train for New Delhi has left 15 minutes ago, but after every 45 minutes a train leaves for New Delhi. The next train will leave at 8.30 p.m. At what time was this information given to the passanger ?
  - (a) 7.45 pm
  - (b) 8.00 pm
  - (c) 8.15 pm
  - (d) 8.05 pm
  - (e) None of these
21. A watch is a minute slow at 1 p.m. on Tuesday and 2 minutes fast at 1 p.m. on Thursday. When did it show the correct time?
  - (a) 1:00 a.m. on Wednesday
  - (b) 5:00 a.m. on Wednesday
  - (c) 1:00 p.m. on Wednesday
  - (d) 5:00 p.m. on Wednesday
  - (e) None of these
22. An application was received by inward clerk in the afternoon of a week day. Next day he forwarded it to the table of the senior clerk, Who was on leave that day. The senior clerk put up the application to the desk officer next day in the evening. The desk officer studied the application and disposed off the matter on the same day i.e., Friday. Which day was the application received by the inward clerk ?
  - (a) Monday
  - (b) Wednesday
  - (c) Tuesday
  - (d) Previous week's Saturday
  - (e) None of these
23. Ashish leaves his house at 20 minutes to seven in the morning reaches Kunal's house in 25 minutes. They finish their breakfast in another 15 minutes and leave for their office which takes another 35 minutes. At what time do they leave Kunal's house to reach their office?
  - (a) 7.40 a.m.
  - (b) 7.20 a.m.
  - (c) 7.45 a.m.
  - (d) 8.15 a.m.
  - (e) None of these
24. Reaching the place of meeting on Tuesday 15 minutes before 8.30 hours, Anuj found himself half an hour earlier than the man who was 40 minutes late. What was the scheduled time of the meeting?
  - (a) 8.00 hrs
  - (b) 8.05 hrs
  - (c) 8.15 hrs
  - (d) 8.45 hrs
  - (e) None of these
25. A clock gaining 2 min every hour was synchronised at midnight with a clock losing 1 min every hour. How many minutes behind will its minute hand be at eleven the following morning ?
  - (a) 23
  - (b) 27
  - (c) 22
  - (d) None of these
  - (e) None of these
26. Rama remembers that she met her brother on Saturday, which was after the 20th day of a particular month. If the 1st day of that month was Tuesday, then on which date did Rama meet her brother ?
  - (a) 24th
  - (b) 23rd
  - (c) 25th
  - (d) None of these
27. In  $2\frac{1}{2}$  hours the hour hand of a clock rotates through an angle of
  - (a)  $90^\circ$
  - (b)  $140^\circ$
  - (c)  $120^\circ$
  - (d)  $75^\circ$
  - (e) None of these
28. On 27 March, 1995 was a Monday. Then what days of the week was 1 November, 1994?
  - (a) Monday
  - (b) Sunday
  - (c) Tuesday
  - (d) Wednesday
29. 16 January 1997 was a Thursday. What day of the week was 4 January 2000?
  - (a) Tuesday
  - (b) Wednesday
  - (c) Thursday
  - (d) Friday
  - (e) None of these
30. In a year 28<sup>th</sup> February is Tuesday; if the leap year is excluded, then 28<sup>th</sup> March will be a
  - (a) Sunday
  - (b) Tuesday
  - (c) Monday
  - (d) Saturday
  - (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)
	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)
	<b>26.</b> (a)(b)(c)(d)(e)	<b>27.</b> (a)(b)(c)(d)(e)	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)	<b>30.</b> (a)(b)(c)(d)(e)





## MENSURATION

**101 SPEED TEST**

# 25

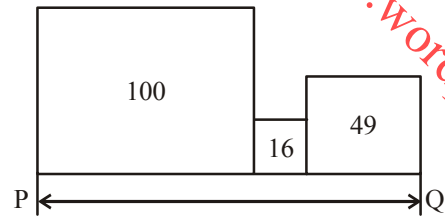
**Max. Marks : 25**
**No. of Qs. 25**
**Time : 20 min.**
**Date : ...../...../.....**

- The circumference of two circles is 83 m and 220 m respectively. What is the difference between the area of the larger circle and the smaller circle ?  
(a) 3422 sq m (b) 3242 sq m (c) 3244 sq m  
(d) 3424 sq m (e) None of these
- The length of a rectangle is twice the diameter of a circle. The circumference of the circle is equal to the area of a square of side 22 cm. What is the breadth of the rectangle if its perimeter is 668 cm ?  
(a) 24 cm (b) 26 cm  
(c) 52 cm (d) Cannot be determined  
(e) None of these
- The area of a square is 196 sq. cm. whose side is half the radius of a circle. The circumference of the circle is equal to breadth of a rectangle, if perimeter of the rectangle is 712 cm. What is the length of the rectangle ?  
(a) 196 cm (b) 186 cm (c) 180 cm  
(d) 190 cm (e) None of these
- The perimeter of a square is double the perimeter of a rectangle. The area of the rectangle is 240 sq cm. What is the area of the square ?  
(a) 100 sq cm (b) 36 sq cm  
(c) 81 sq cm (d) Cannot be determined  
(e) None of these
- The circumference of two circles is 132 m, and 176 m respectively. What is the difference between the area of the larger circle and the smaller circle ?  
(a) 1048 sq m (b) 1076 sq m (c) 1078 sq m  
(d) 1090 sq m (e) None of these
- If the perimeter of a square is equal to the radius of a circle whose area is 39424 sq. cm, what is the area of the square ?  
(a) 1225 sq. cm (b) 441 sq. cm  
(c) 784 sq. cm (d) Cannot be determined  
(e) None of these
- What will be the area (in square metre) of 1.5 m wide garden developed around all the four sides of a rectangular field having area equal to 300 sq. m and breadth equal to three-fourth of the length ?  
(a) 96 (b) 105  
(c) 114 (d) Cannot be determined  
(e) None of these
- The length of a rectangle is increased by 60%. By what per cent should the width be decreased to maintain the same area?  
(a)  $37\frac{1}{2}$  (b)  $39\frac{1}{3}$  (c)  $40\frac{1}{4}$   
(d)  $38\frac{1}{4}$  (e) None of these
- If radius of a circle is increased by 5%, find the percentage increase in its area.  
(a) 10.25% (b) 12.50% (c) 13.5%  
(d) 14.5% (e) None of these
- If all the sides of a hexagon (six-sided figure) is increased by 2%, find the % increase in its area.  
(a) 4.04 (b) 5.5 (c) 6.5  
(d) 7.5 (e) None of these
- Two poles, 15 m and 30 m high, stand upright in a playground. If their feet be 36 m apart, find the distance between their tops.  
(a) 35 cm (b) 39 cm (c) 45 cm  
(d) 50 cm (e) None of these
- A semi-circle is constructed on each side of a square of length 2m. Find the area of the whole figure.  
(a)  $(5 + 3\pi) \text{ m}^2$  (b)  $(4 + 3\pi) \text{ m}^2$  (c)  $(4 + \pi) \text{ m}^2$   
(d)  $(4 + 2\pi) \text{ m}^2$  (e) None of these

**RESPONSE  
GRID**

- |                     |                     |                    |                    |                     |
|---------------------|---------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) |                    |                    |                     |

13. A cord is in the form of a square enclosing an area of  $22 \text{ cm}^2$ . If the same cord is bent into a circle, then find the area of that circle.  
 (a)  $20 \text{ cm}^2$  (b)  $25 \text{ cm}^2$  (c)  $26 \text{ cm}^2$   
 (d)  $28 \text{ cm}^2$  (e) None of these
14. The largest triangle is inscribed in a semi-circle of radius 14 cm. Find the area inside the semi-circle which is not occupied by the triangle.  
 (a)  $100 \text{ cm}^2$  (b)  $112 \text{ cm}^2$  (c)  $115 \text{ cm}^2$   
 (d)  $113 \text{ cm}^2$  (e) None of these
15. In a quadrilateral, the length of one of its diagonal is 23 cm and the perpendiculars drawn on this diagonal from other two vertices measure 17 cm and 7 cm respectively. Find the area of the quadrilateral.  
 (a)  $250 \text{ cm}^2$  (b)  $276 \text{ cm}^2$  (c)  $300 \text{ cm}^2$   
 (d)  $325 \text{ cm}^2$  (e) None of these
16. A cube of maximum volume (each corner touching the surface from inside) is cut from a sphere. Find the ratio of the volumes of the cube and the sphere.  
 (a)  $2:\sqrt{3}\pi$  (b)  $3:2\pi$  (c)  $5:4\pi$   
 (d)  $3:\sqrt{2}\pi$  (e) None of these
17. The volumes of two cubes are in the ratio of 8 : 125. Then find the ratio of their edges and surface areas.  
 (a) 4 : 9 (b) 4 : 25 (c) 4 : 36  
 (d) 4 : 30 (e) None of these
18. A circular wire of radius 42 cm is cut and bent in the form of a rectangle whose sides are in the ratio of 6 : 5. Find the smaller side of the rectangle.  
 (a) 50 cm (b) 60 cm (c) 70 cm  
 (d) 80 cm (e) None of these
19. A right circular cone is exactly fitted inside a cube in such a way that the edges of the base of the cone are touching the edges of one of the faces of the cube and the vertex is on the opposite face of the cube. If the volume of the cube is 343 cc, what, approximately, is the volume of the cone?  
 (a) 80 cc (b) 90 cc (c) 110 cc  
 (d) 105 cc (e) None of these
20. The following figure contains three squares with areas of 100, 16 and 49 sq. units respectively laying side by side as shown. By how much should the area of the middle square be reduced in order that the total length PQ of the resulting three squares is 19?



- (a) 12 (b) 4 (c) 3  
 (d) 2 (e) 6
21. A rectangle has perimeter of 50 metres. If its length is 13 metres more than its breadth, then its area is:  
 (a)  $124 \text{ m}^2$  (b)  $144 \text{ m}^2$  (c)  $114 \text{ m}^2$   
 (d)  $104 \text{ m}^2$  (e)  $117 \text{ m}^2$
22. A hemispherical bowl is filled to the brim with a beverage. The contents of the bowl are transferred into a cylindrical vessel whose radius is 50% more than its height. If the diameter is same for both bowl and cylinder, then the volume of the beverage in the cylindrical vessel will be  
 (a)  $66\frac{2}{3}\%$   
 (b) 78.5%  
 (c) 100%  
 (d) More than 100% (that is, some liquid will still be left in the bowl)  
 (e) None of these
23. If the angle of triangle are in the ratio of 4 : 3 : 2, then the triangle  
 (a) is obtuse angled triangle  
 (b) has one angle greater than  $80^\circ$   
 (c) is a right triangle  
 (d) is acute angled triangle  
 (e) None of these
24. What is the maximum number of pieces of  $5 \text{ cm} \times 5 \text{ cm} \times 10 \text{ cm}$  of cake that can be cut from a big cake of  $5 \text{ cm} \times 30 \text{ cm} \times 30 \text{ cm}$  size?  
 (a) 10 (b) 15 (c) 18  
 (d) 30 (e) 32
25. A rectangular piece of iron sheet measuring 50 cm by 100 cm is rolled into cylinder of height 50 cm. If the cost of painting the cylinder is ₹ 50 per square metre, then what will be the cost of painting the outer surface of the cylinder?  
 (a) ₹ 25.00 (b) ₹ 37.50 (c) ₹ 75.00  
 (d) ₹ 87.50 (e) None of these

**RESPONSE  
GRID**

- |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <b>13.</b> (a)(b)(c)(d)(e) | <b>14.</b> (a)(b)(c)(d)(e) | <b>15.</b> (a)(b)(c)(d)(e) | <b>16.</b> (a)(b)(c)(d)(e) | <b>17.</b> (a)(b)(c)(d)(e) |
| <b>18.</b> (a)(b)(c)(d)(e) | <b>19.</b> (a)(b)(c)(d)(e) | <b>20.</b> (a)(b)(c)(d)(e) | <b>21.</b> (a)(b)(c)(d)(e) | <b>22.</b> (a)(b)(c)(d)(e) |
| <b>23.</b> (a)(b)(c)(d)(e) | <b>24.</b> (a)(b)(c)(d)(e) | <b>25.</b> (a)(b)(c)(d)(e) |                            |                            |



**DI LINE GRAPH**

Max. Marks : 30

No. of Qs. 30

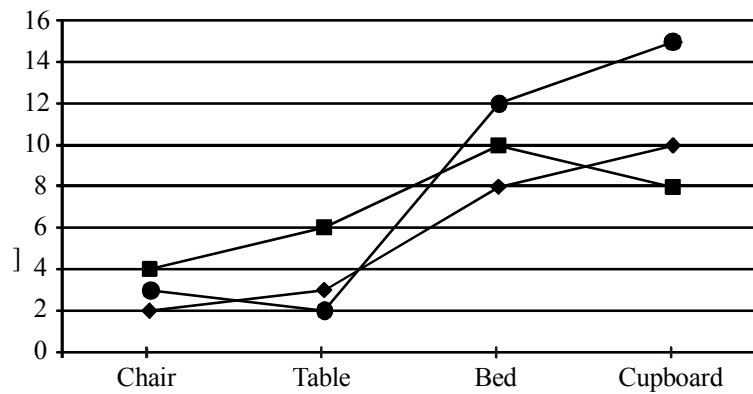
Time : 20 min.

Date : ...../...../.....

Directions (Q. 1-3) : Study the given graph carefully to answer the questions that follow:

Number of Days Taken by Three Carpenters to Finish Making one Piece each of four Different items of Furniture

- ◆ Carpenter X
- Carpenter Y
- Carpenter Z

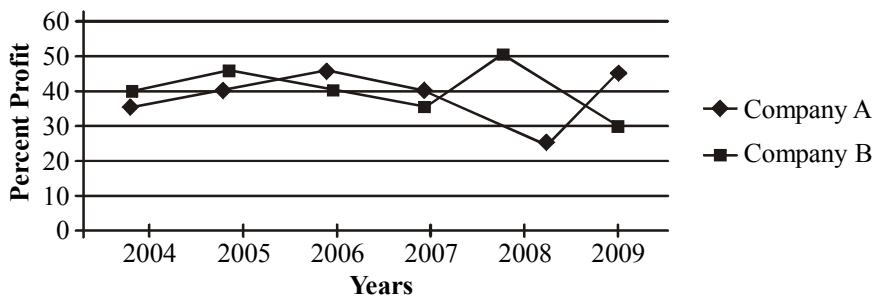


1. If Carpenter X and Carpenter Y were to make a chair together how many days would they take ?  
 (a) 1 day                      (b) 4 days                      (c) 3 days  
 (d) 2 days                      (e) None of these
2. What is the total number of days that Carpenter Z will take to make one piece each of all the four items together ?  
 (a) 32 days                      (b) 24 days                      (c)  $1\frac{1}{59}$  days  
 (d)  $1\frac{1}{32}$  days                      (e) None of these
3. If Carpenters X, Y and Z were to make a table together how many days would they take ?  
 (a) 4 days                      (b) 3 days                      (c) 1 day  
 (d) 2 days                      (e) None of these

Directions (Q. 4-8): Study the graph carefully to answer the questions that follow:

Percent Profit Made by two Companies over the Years

$$\text{Percent profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

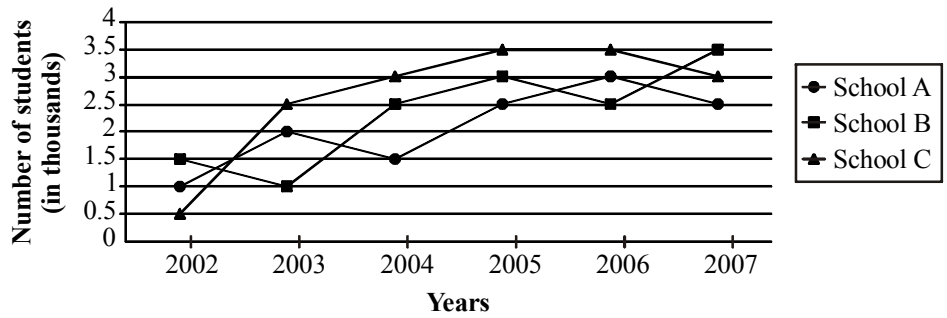


<b>RESPONSE GRID</b>	1. (a) (b) (c) (d) (e)	2. (a) (b) (c) (d) (e)	3. (a) (b) (c) (d) (e)
----------------------	------------------------	------------------------	------------------------

4. If the amount of profit earned by Company A in the year 2007 was ₹ 1.5 lakh, what was its expenditure in that year ?  
 (a) ₹ 1.96 lakh      (b) ₹ 2.64 lakh      (c) ₹ 1.27 lakh  
 (d) ₹ 3.75 lakh      (e) None of these
5. What is the respective ratio of the amount of profit earned by Company A and B in the year 2009 ?  
 (a) 2 : 3      (b) 4 : 7  
 (c) 11 : 15      (d) Cannot be determined  
 (e) None of these
6. If in the year 2004 the expenditure incurred by Company A and B was the same, what was respective ratio of the Income of Company A and B in that year ?  
 (a) 27 : 28      (b) 14 : 23  
 (c) 13 : 19      (d) Cannot be determined  
 (e) None of these
7. What is the average percent profit earned by Company B over all the years together ?  
 (a)  $19\frac{1}{3}$       (b)  $24\frac{1}{6}$       (c)  $12\frac{1}{3}$   
 (d)  $37\frac{1}{6}$       (e) None of these
8. If in the year 2008, the income of both the companies A and B was the same, what was the respective ratio of expenditure of Company A to the expenditure of Company B in that year ?  
 (a) 21 : 25      (b) 7 : 9  
 (c) 13 : 15      (d) Cannot be determined  
 (e) None of these

**Directions (Q. 9 - 13):** Study the following graph carefully to answer the questions that follow.

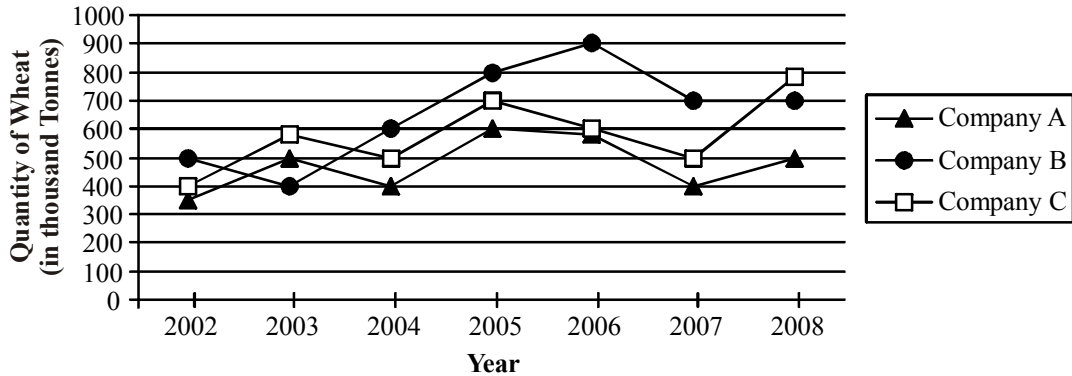
**Number of Students (in Thousands)  
in three Schools over the Year**



9. What was the average number of students in all the Schools together in the year 2006 ?  
 (a) 30000      (b) 9000      (c) 3000  
 (d) 6000      (e) None of these
10. How many times the total number of students in all the three Schools A, B and C together was exactly equal among the given years ?  
 (a) 2      (b) 5      (c) 4  
 (d) 3      (e) None of these
11. Total number of students in School B and School C together in the year 2004 was **approximately** what percentage of the total number of students in School B and School C together in the year 2007 ?  
 (a) 85      (b) 80      (c) 75 (d) 184 (e) 131
12. What was the difference between the total number of students in all the schools together in the year 2003 and number of students in School B in the year 2005 ?  
 (a) 2000      (b) 3000      (c) 3500  
 (d) 2500      (e) None of these
13. What was the **approximate** average number of students in School A over all the years together ?  
 (a) 1990      (b) 2090      (c) 2300  
 (d) 1800      (e) 2700

<b>RESPONSE GRID</b>	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)
	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)

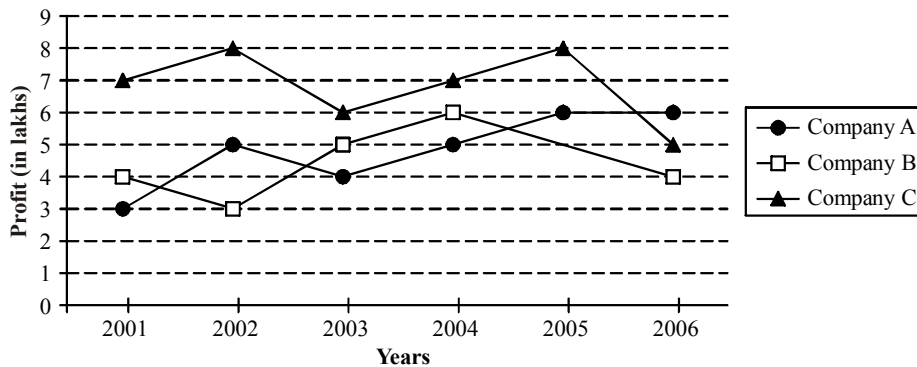
Directions (Q. 14-18): Study the following graph carefully to answer these questions.  
Quantity of Wheat (in Thousand Tonnes) exported by Three Countries Over the Years.



14. What is the per cent increase in exports of company C from 2004 to 2008 ?  
(a) 50 (b) 33.33 (c) 150  
(d) 133.33 (e) None of these
15. Total exports of company A for all the years are **approximately** what per cent of the total exports of company B for all the years ?  
(a) 75 (b) 128 (c) 139  
(d) 68 (e) 72
16. Per cent rise in exports from the previous years was the maximum during which year for company B ?  
(a) 2005 (b) 2004 (c) 2006  
(d) 2008 (e) None of these
17. What are the average exports of company B for all the years? (in thousands tonnes rounded off to two digits after decimal)  
(a) 766.67 (b) 667.14 (c) 657.14  
(d) 756.57 (e) None of these
18. What is the ratio between total exports of the three companies in 2003 and 2006 respectively ?  
(a) 41 : 29 (b) 51 : 29 (c) 29 : 51  
(d) 29 : 41 (e) None of these

Directions (Q.19-23) : Study the graph carefully to answer the questions that follow :  
Profit (in lakhs) made by three companies over the years

Profit = Income – Expenditure



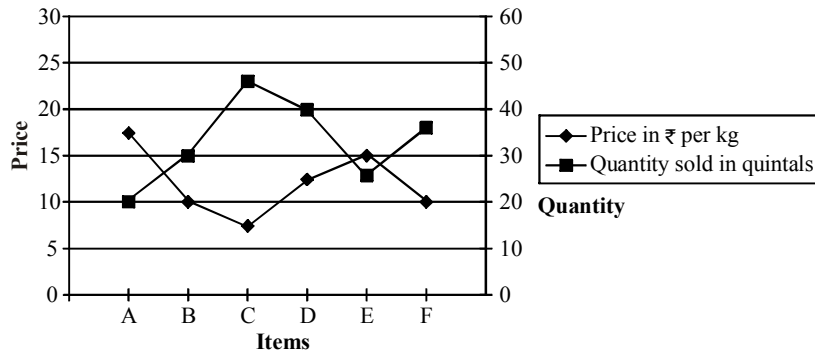
19. If the Income of Company A in the year 2005 was ₹ 1354300, what was its expenditure in that year ?  
(a) ₹921600 (b) ₹833500 (c) ₹648200  
(d) ₹754300 (e) None of these
20. If the expenditure of Company B in the year 2006 was ₹2211430, what was its income in that year ?  
(a) ₹2912260 (b) ₹2814680 (c) ₹3209670  
(d) ₹2711430 (e) None of these
21. What is the **approximate** average profit made by Company A in all the years together ?  
(a) ₹398000 (b) ₹382000 (c) ₹483000  
(d) ₹512000 (e) ₹405000
22. Profit made by Company A in the year 2002 was what per cent of the total profit made by all the three companies in that year ?  
(a) 31.25 (b) 28.24 (c) 21.43  
(d) 36.25 (e) None of these
23. What is the per cent increase in profit of Company C in the year 2002 from the previous year? (rounded off to the nearest integer)  
(a) 7 (b) 14 (c) 21  
(d) 28 (e) None of these

RESPONSE  
GRID

14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e)  
19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e) 21. (a)(b)(c)(d)(e) 22. (a)(b)(c)(d)(e) 23. (a)(b)(c)(d)(e)

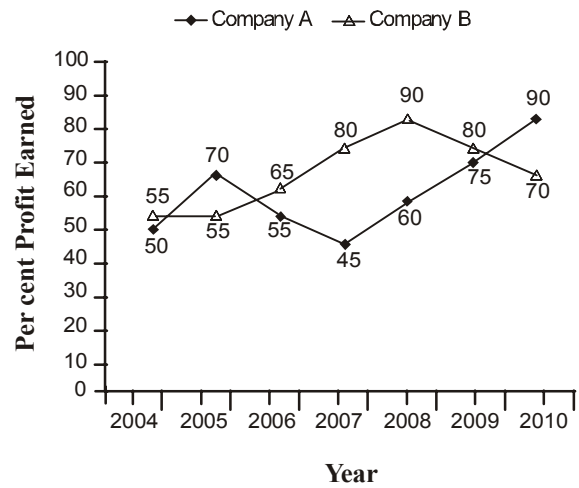
**Directions (Q. 24-28):** Study the following graph carefully to answer these questions.

**Quantity of Various Items Sold and Price per kg**



24. If the quantity sold of item D increased by 50% and the price reduced by 10%. What was the total value of the quantity sold for item D ?  
 (a) ₹ 675 (b) ₹ 6750 (c) ₹ 67550  
 (d) ₹ 67500 (e) None of these
25. **Approximately**, what is the average price per kg of items A, B & C ?  
 (a) ₹ 9.50 (b) ₹ 8 (c) ₹ 7.50  
 (d) ₹ 9 (e) ₹ 10.50
26. What is the ratio between the total values of quantity sold for items E & F respectively ?  
 (a) 15 : 14 (b) 3 : 2 (c) 5 : 7  
 (d) 7 : 5 (e) None of these
27. Total value of the quantity sold for item C is what per cent of the total value of the quantity sold for item E ?  
 (a) 111 (b) 85 (c) 90  
 (d) 87.5 (e) None of these
28. If the price as well as the quantity sold is increased by 20% for item A, what is the total value of quantity sold for item A ?  
 (a) ₹ 48500 (b) ₹ 49000 (c) ₹ 42000  
 (d) ₹ 50400 (e) None of these

**Profit Earned = Total Income – Total Investment in the year**



29. If the profit earned in 2006 by Company B was ₹8,12,500, what was the total income of the company in that year?  
 (a) ₹12,50,000 (b) ₹20,62,500  
 (c) ₹16,50,000 (d) ₹18,25,000  
 (e) None of these
30. If the amount invested by the two companies in 2005 was equal, what was the ratio of the total income of the Company A to that of B in 2005?  
 (a) 31 : 33 (b) 33 : 31  
 (c) 34 : 31 (d) 14 : 11  
 (e) None of these

**Directions (Qs. 29-30):** Study the following graph carefully to answer these questions.

**Per cent profit earned by two companies producing electronic goods over the years**

$$\% \text{ Profit} = \frac{\text{Profit Earned}}{\text{Total Investment}} \times 100$$



**DI BAR GRAPH**

Max. Marks : 30

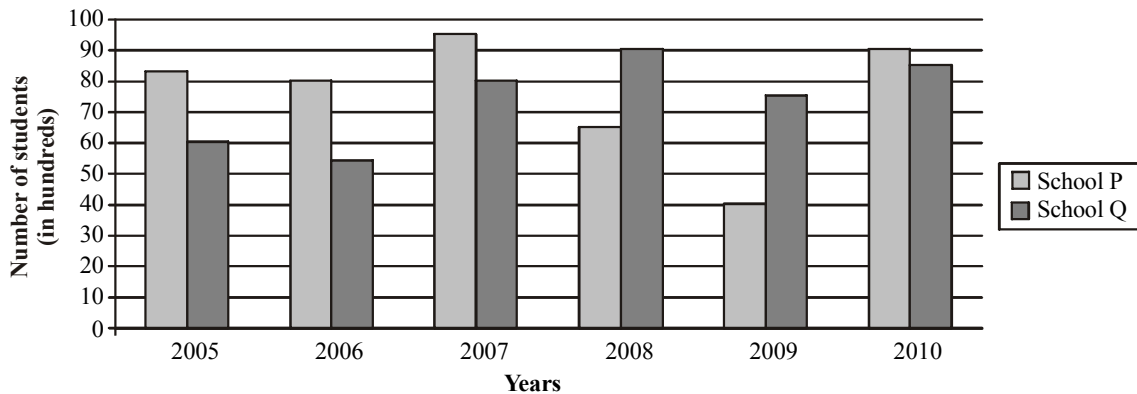
No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Qs. 1-5) :** Study the following graph carefully to answer the questions that follow:

**Number of Students (in Hundreds) from two Different Schools who Qualified in an Exam in six Different Years**



- What was the approximate per cent increase in the number of students who qualified in the exam from School-Q in the year 2007 as compared to the previous year ?

(a) 30                      (b) 36                      (c) 45  
(d) 49                      (e) 26
- What was the respective ratio between the number of students who qualified in the exam from School.-P in the year 2005 and the number of students who qualified in the exam from School-Q in the year 2008 ?

(a) 13 : 18                      (b) 17 : 18                      (c) 17 : 19  
(d) 13 : 19                      (e) None of these
- What was the difference between the total number of students who qualified in the exam in the year 2005 from both the schools together and the total number of students from School-Q who qualified in the exam over all the years together ?

(a) 30000                      (b) 30500                      (c) 29000  
(d) 29500                      (e) None of these
- Total number of students who qualified in the exam from School-P over all the years together was approximately what percentage of total number of students who qualified in the exam from both the schools together in the year 2006 and 2007 together ?

(a) 143                      (b) 159                      (c) 155  
(d) 165                      (e) 147
- If 40 per cent of the total students who qualified in the exam from both the schools together over all the years are females, then what was the total number of males who qualified in the exams over all the years from both the schools together ?

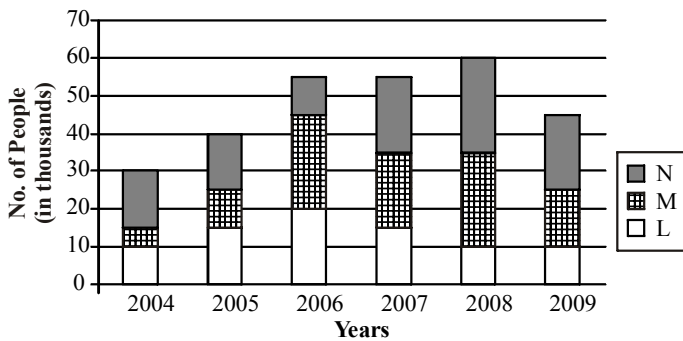
(a) 51000                      (b) 54000                      (c) 56000  
(d) 52000                      (e) None of these

**RESPONSE GRID**

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)

**DIRECTIONS (Qs.6-10):** Study the given graph carefully to answer the questions that follow:

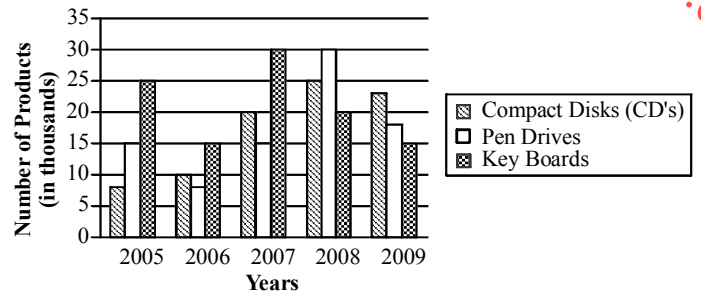
**Number of people (in thousands) using three different types of mobile services over the years**



6. What is the total number of people using mobile service M in the years 2008 and 2009 together ?  
 (a) 35,000                      (b) 30,000                      (c) 45,000  
 (d) 25,000                      (e) None of these
7. Number of people using mobile service N in the year 2006 forms approximately what percent of the total number of people using all the three mobile services in that year ?  
 (a) 18                              (b) 26                              (c) 11  
 (d) 23                              (e) 29
8. What is the respective ratio of number of people using mobile service L in the year 2005 to those using the same service in the year 2004 ?  
 (a) 8 : 7                              (b) 3 : 2                              (c) 19 : 13  
 (d) 15 : 11                              (e) None of these
9. The total number of people using all the three mobile services in the year 2007 is what percent of the total number of people using all the three mobile services in the year 2008 ? (rounded off to two digits after decimal)  
 (a) 89.72                              (b) 93.46                              (c) 88.18  
 (d) 91.67                              (e) None of these
10. What is the average number of people using mobile service M for all the years together ?  
 (a)  $16\frac{2}{3}$                               (b)  $14444\frac{1}{6}$                               (c)  $16666\frac{2}{3}$   
 (d)  $14\frac{1}{6}$                               (e) None of these

**DIRECTIONS (Qs.11-15):** Study the following graph carefully and answer the questions that follow :

**Three Different Products (in thousands) Produced by a Company in Five Different Years**



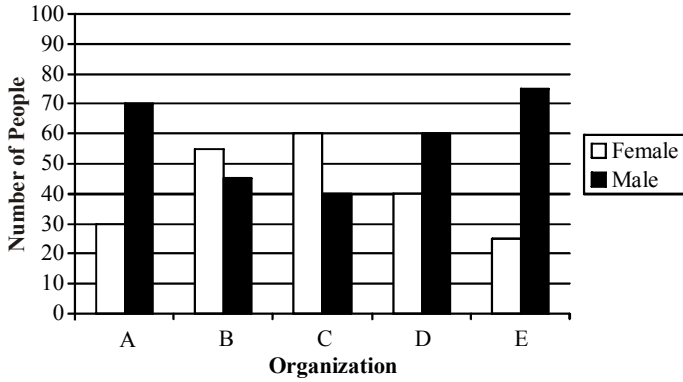
11. What was the average number of Pen-drives produced by the company over all the years together ?  
 (a) 1700                              (b) 1.7 lakh                              (c) 17000  
 (d) 85000                              (e) None of these
12. What was the total number of all the products produced by the company in the year 2006 and 2008 together ?  
 (a) 10750                              (b) 107.5 lakh                              (c) 105700  
 (d) 10570                              (e) None of these
13. What was the respective ratio between the number of CDs produced by the company in the year 2009 and the number of Keyboards produced by the company in the year 2005 ?  
 (a) 9 : 10                              (b) 11 : 10                              (c) 10 : 9  
 (d) 10 : 11                              (e) None of these
14. What is the difference between the total number of Pen-drives and CDs produced by the company together in the year 2008 and the number of key boards produced by the company in the year 2006 ?  
 (a) 40000                              (d) 4000                              (c) 35000  
 (d) 3500                              (e) None of these
15. What was the respective ratio between the number of Key boards produced by the company in the years 2006, 2007 and 2009 ?  
 (a) 1 : 2 : 3                              (b) 1 : 2 : 2                              (c) 2 : 1 : 3  
 (d) 1 : 2 : 1                              (e) None of these

<b>RESPONSE GRID</b>	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)

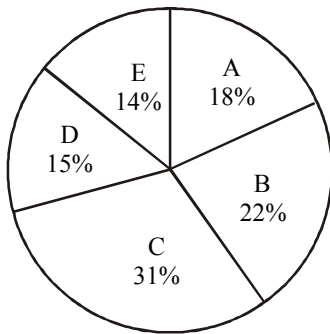


**DIRECTIONS (Qs. 16-20):** Study the following graph and pie-chart carefully to answer the questions that follow.

**Percentage Breakup of Males and Females in the Five Organizations.**



**Percentage Breakup of Employees in Five Different Organizations [Total number (N) = 35000]**

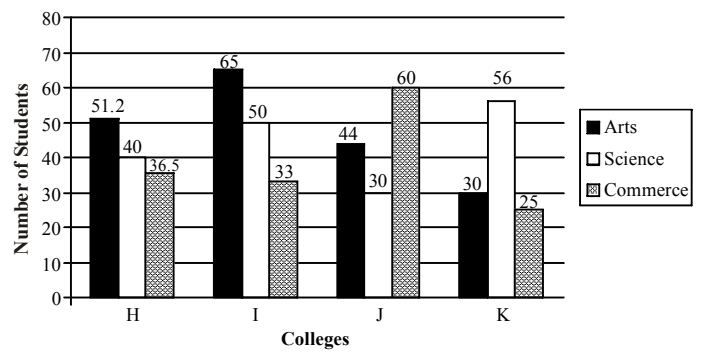


- Total number of employees in Organization C is **approximately** what per cent of total number of employees in Organization D ?  
 (a) 147 (b) 279 (c) 312  
 (d) 207 (e) 183
- What is the total number of males in all the Organizations together ?  
 (a) 13350 (b) 14700 (c) 15960  
 (d) 16280 (e) None of these
- What is the total number of males in Organization A and C together ?  
 (a) 6125 (b) 8400 (c) 8025  
 (d) 7400 (e) None of these

- What is the difference between the number of females in Organization B and the number of females in Organization E?  
 (a) 210 (b) 350 (c) 170  
 (d) 300 (e) None of these
- What is the number of females in Organization D?  
 (a) 3855 (b) 3250 (c) 3300  
 (d) 3675 (e) None of these

**DIRECTIONS (Qs. 21 - 25):** Study the following graph carefully and answer the questions given below it.

**Number of Students Studying in Various Colleges from Various Faculties (Number in Thousands)**

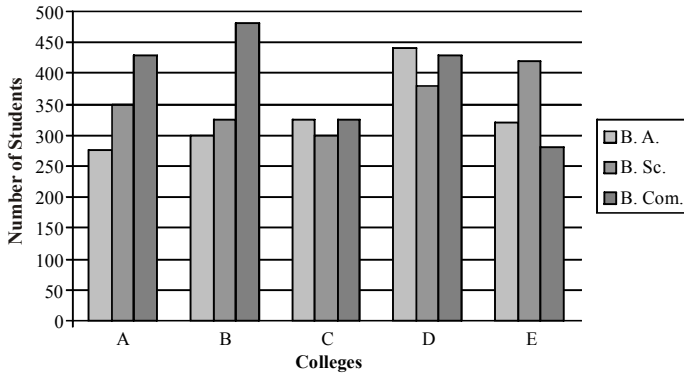


- What is the difference between the total number of students studying in college H and those studying in college K ?  
 (a) 16100 (b) 15800 (c) 16300  
 (d) 16700 (e) None of these
- What is the total number of students studying in all the colleges together ?  
 (a) 520900 (b) 520700 (c) 610200  
 (d) 510800 (e) None of these
- What is the respective ratio of the students from the faculty of Science from colleges H and I together to the students from the same faculty from colleges J and K together ?  
 (a) 43 : 45 (b) 41 : 43 (c) 45 : 43  
 (d) 43 : 41 (e) None of these
- The number of students from the faculty of Science from college I are approximately what per cent of the total number of students studying in that college ?  
 (a) 34 (b) 37 (c) 29  
 (d) 31 (e) 39
- What is the average number of students from the faculty of Commerce from all the colleges together ?  
 (a) 36825 (b) 38655 (c) 35625  
 (d) 36585 (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)
	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)

**DIRECTIONS (Qs. 26-30):** Study the following graph carefully to answer the questions that follow.

**Number of Students Enrolled in Three Different Disciplines in Five Different Colleges**



26. What is the total number of students studying B.Sc. in all the Colleges together ?
- (a) 1825                      (b) 1975                      (c) 1650  
 (d) 1775                      (e) None of these

27. What is the respective ratio of total number of students studying B.Sc. in the colleges C and E together to those studying B.A. in the colleges A and B together ?
- (a) 24 : 23                      (b) 25 : 27                      (c) 29 : 23  
 (d) 29 : 27                      (e) None of these
28. What is the respective ratio of total number of students studying B.Sc., B.A. and B. Com. in all the Colleges together?
- (a) 71 : 67 : 75                      (b) 67 : 71 : 75  
 (c) 71 : 68 : 75                      (d) 75 : 71 : 68  
 (e) None of these
29. Number of students studying B.Com. in College C forms **approximately** what per cent of the total number of students studying B.Com. in all the colleges together ?
- (a) 39                                      (b) 21                                      (c) 44  
 (d) 33                                      (e) 17
30. Number of students studying B.A. in College B forms what per cent of total number of students studying all the disciplines together in that college ? (rounded off to two digits after decimal)
- (a) 26.86                                      (b) 27.27                                      (c) 29.84  
 (d) 32.51                                      (e) None of these



**DI PIE CHART**

Max. Marks : 30

No. of Qs. 30

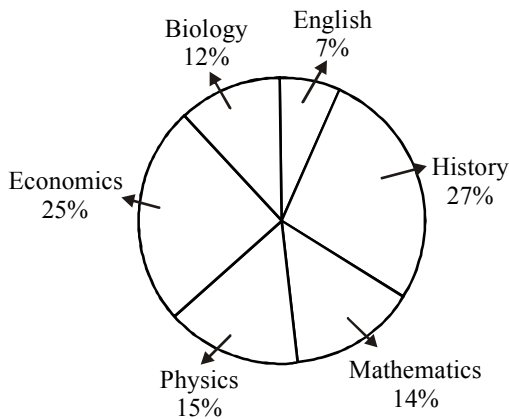
Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Qs. 1-5) :** Study the following Pie-chart carefully to answer these questions.

**Percentage-wise Distribution of Teachers who Teach six Different Subjects**

**Total Number of Teachers = 2000**  
**Percentage of Teachers**



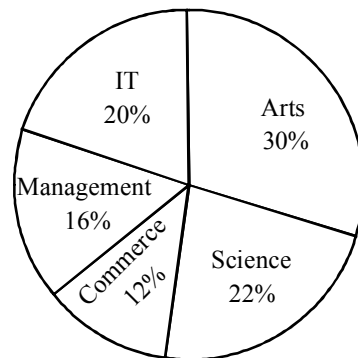
- If five-seventh of the teachers who teach Mathematics are female, then number of male Mathematics teachers is approximately what percentage of the total number of teachers who teach English ?  
(a) 57 (b) 42 (c) 63  
(d) 69 (e) 51
- What is the difference between the total number of teachers who teach English and History together and the total number of teachers who teach Mathematics and Biology together ?  
(a) 146 (b) 156 (c) 180  
(d) 160 (e) None of these
- If the percentage of Biology teachers is increased by 40 per cent and percentage of History teachers decreased by 20 per cent then what will be the total number of Biology and History teachers together ?  
(a) 634 (b) 654 (c) 658  
(d) 778 (e) None of these
- What is the approximate average number of teachers teaching Economics, History and Biology together ?

- (a) 400 (b) 420 (c) 450  
(d) 480 (e) 470

- What is the respective ratio of the number of teachers who teach Biology and the number of teachers who teach Physics?  
(a) 6 : 7 (b) 4 : 7 (c) 3 : 5  
(d) 4 : 5 (e) None of these

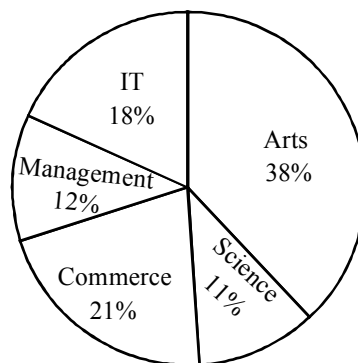
**DIRECTIONS (Qs. 6-10) :** Study the following Pie-chart carefully to answer these questions.

**Percentage of Students Enrolled in Different Streams in a College**  
Total number of students = 3500



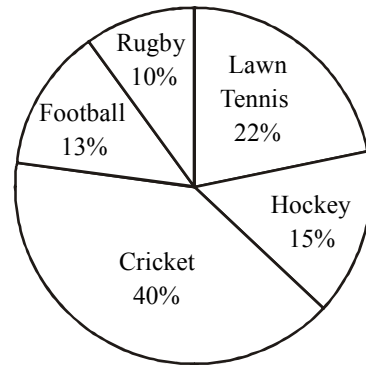
**Percentage Break-up of Girls Enrolled in These Streams out of the Total Students**

Total number of girls = 1500



6. What is the total number of boys enrolled in Management and IT together ?  
 (a) 1050                      (b) 810                      (c) 1120  
 (d) 980                        (e) None of these
7. What is the respective ratio of number of girls enrolled in Arts to the number of boys enrolled in Science ?  
 (a) 14 : 23                      (b) 2 : 3                      (c) 114 : 121  
 (d) 53 : 65                      (e) None of these
8. What is the total number of girls enrolled in Science and Commerce together?  
 (a) 450                        (b) 495                      (c) 345  
 (d) 480                        (e) None of these
9. If 20% of the girls enrolled in Science change their stream to Management then what will be the new number of Management students altogether ?  
 (a) 593                        (b) 733                      (c) 453  
 (d) 1003                        (e) None of these
10. Number of girls enrolled in Arts, Science and Commerce forms. What per cent of total number of students in the college ?  
 (a) 25                         (b) 40                        (c) 60  
 (d) 75                         (e) None of these

Female player = 2000



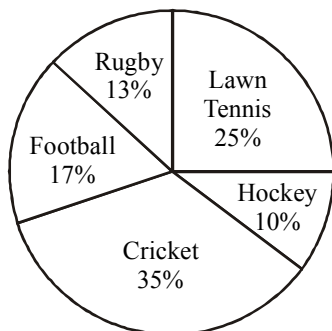
**Percentage of females players who play different sports**

11. What is the average number of players (both male and female) who play football and rugby together ?  
 (a) 620                        (b) 357                      (c) 230  
 (d) 630                        (e) None of these
12. What is the difference between the number of the female players who play lawn tennis and the number of male players who play rugby ?  
 (a) 94                         (b) 84                        (c) 220  
 (d) 240                        (e) None of these
13. What is the respective ratio of the number of female players who play cricket and number of male players who play hockey?  
 (a) 20 : 7                      (b) 4 : 21                      (c) 20 : 3  
 (d) 3 : 20                      (e) None of these
14. What is the total number of male players who play football, cricket and lawn tennis together ?  
 (a) 1724                        (b) 1734                      (c) 1824  
 (d) 1964                        (e) None of these
15. Number of male players who play rugby is approximately what percentage of the total number of players who play lawn tennis ?  
 (a) 33                         (b) 39                        (c) 26  
 (d) 21                         (e) 43

**DIRECTIONS (Qs. 11 - 15):** Study the following Pie-chart carefully to answer the questions that follow.

**Percentagewise Distribution of Players Who Play Five Different Sports. Two players are 4200 out of which Female Players are Equal to 2000**

Total player = 4200



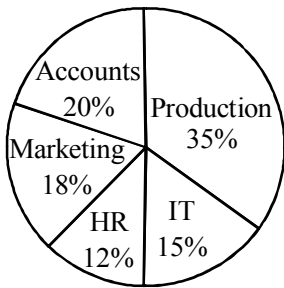
Percentage of players who play different sports

**DIRECTIONS (Qs.16-20):** Study the given Pie-charts carefully to answer the questions that follow.

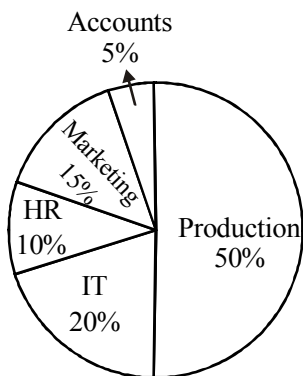
**Break up of Number of Employees Working in Different Departments of an Organisation, the Number of Males and the number of Employees who Recently got Promoted in each Department**

**Break up of Employees working in Different Departments : Total Number of Employees = 3600 Employees working in Different Departments**

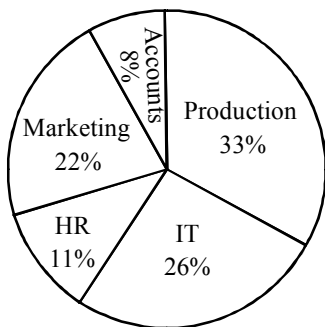
<b>RESPONSE GRID</b>	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)



**Break up of Number of Males in each Department**  
**Total Number of Males in the Organisation = 2040**  
**Break up of Number of Males Working in each Department**



**Break up of Number of Employees who Recently got Promoted in each Department**  
**Total Number of Employees who got promoted = 1200**  
**Number of Employees who Recently got Promoted from each Department**



16. The number of employees who got promoted from the HR department was what per cent of the total number of employees working in that department? (rounded off to two digits after decimal)

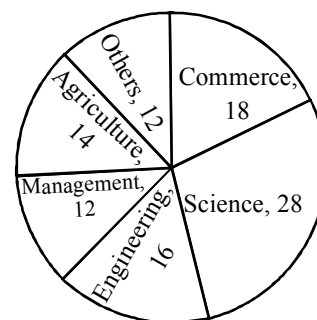
- (a) 36.18 (b) 30.56 (c) 47.22  
 (d) 28.16 (e) None of these
17. The total number of employees who got promoted from all the departments together was what per cent of the total number of employees working in all the departments together? (Rounded off to the nearest integer)  
 (a) 56 (b) 21 (c) 45  
 (d) 33 (e) 51
18. What is the total number of females working in the Production and Marketing departments together?  
 (a) 468 (b) 812 (c) 582  
 (d) 972 (e) None of these
19. If half of the number of employees who got promoted from the IT department were males, what was the approximate percentage of males who got promoted from the IT department?  
 (a) 61 (b) 29 (c) 54  
 (d) 42 (e) 38
20. How many females work in the Accounts department?  
 (a) 618 (b) 592 (c) 566  
 (d) 624 (e) None of these

**DIRECTIONS (Qs. 21-25) :** Study the following Pie-charts carefully and answer the questions given below.

**Disciplinewise Break up of Number of candidates appeared in Interview and Disciplinewise Break up and Number of candidates selected by an organization**

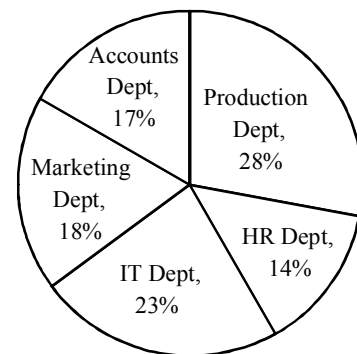
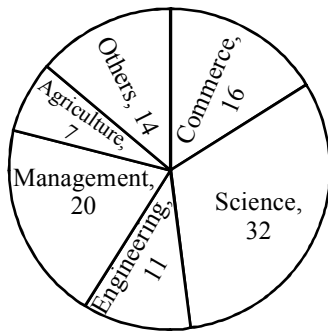
Disciplinewise Break up of  
 Number of candidates appeared  
 by the organization

**Total Number of Candidates Appeared in the interview = 25780**  
**Percentage**



Disciplinewise Break up of Number of candidates selected after interview by the organization

**Total Number of Candidates Selected after the interview = 7390**  
**Percentage**



Ratio of Men to Women

Department	Men	Women
Production	11	1
HR	1	3
IT	5	4
Marketing	7	5
Accounts	2	7

21. Approximately what was the difference between the number of candidates selected from Agriculture discipline and number of candidates selected from Engineering discipline?
- (a) 517                      (b) 665                      (c) 346  
(d) 813                      (e) 296
22. For which discipline was the difference in number of candidates selected to number of candidates appeared in interview the maximum?
- (a) Management            (b) Engineering            (c) Science  
(d) Agriculture            (e) None of these
23. The total number of candidates appeared in interview from Management and other discipline was what percentage of number of candidates appeared from Engineering discipline?
- (a) 50                      (b) 150  
(c) 200                      (d) Cannot be determined  
(e) None of these
24. Approximately what was the total number of candidates selected from Commerce and Agricultural discipline together?
- (a) 1700                      (b) 1800                      (c) 2217  
(d) 1996                      (e) 1550
25. What was the ratio between the number of candidates appeared in interview from other discipline and number of candidates selected from Engineering discipline respectively (rounded off to the nearest integer)?
- (a) 3609 : 813              (b) 3094 : 813              (c) 3094 : 1035  
(d) 4125 : 1035              (e) 3981 : 767
- DIRECTIONS (Qs. 26-30):** Study the following pie chart and table carefully to answer the questions that follow.
- Percentage break up of employees working in various departments of an organization and the ratio of men to women in them**
- Percentage Break up of Employees**  
**Total Number of Employees = 1800**
26. What is the number of men working in the Marketing department?
- (a) 132                      (b) 174                      (c) 126  
(d) 189                      (e) None of these
27. The number of men working in the production department of the organization forms what per cent of the total number of employees working in that department? (rounded off to two digits after decimal)
- (a) 89.76                      (b) 91.67                      (c) 88.56  
(d) 94.29                      (e) None of these
28. What is the respective ratio of the number of men working in the Accounts department of the total number of employees working in that department?
- (a) 9 : 2                      (b) 7 : 6                      (c) 2 : 9  
(d) 6 : 7                      (e) None of these
29. What is the respective ratio of the number of Women working in the HR department of the Organization and the total number of employees in that department?
- (a) 3 : 4                      (b) 2 : 5                      (c) 2 : 9  
(d) 3 : 7                      (e) None of these
30. The number of women working in the IT department of the Organization forms approximately what per cent of the total number of employees in the Organization from all departments together?
- (a) 7                      (b) 5                      (c) 19  
(d) 15                      (e) 10

**RESPONSE  
GRID**

21. (a)(b)(c)(d)(e)    22. (a)(b)(c)(d)(e)    23. (a)(b)(c)(d)(e)    24. (a)(b)(c)(d)(e)    25. (a)(b)(c)(d)(e)  
26. (a)(b)(c)(d)(e)    27. (a)(b)(c)(d)(e)    28. (a)(b)(c)(d)(e)    29. (a)(b)(c)(d)(e)    30. (a)(b)(c)(d)(e)



101 SPEED TEST

29

**DI TABLE CHART**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Q. 1-5) :** Study the following table carefully to answer the questions that follow.

**Number of flights cancelled by five different airlines in six different years**

Airline \ Year	P	Q	R	S	T
2005	240	450	305	365	640
2006	420	600	470	446	258
2007	600	680	546	430	610
2008	160	208	708	550	586
2009	140	640	656	250	654
2010	290	363	880	195	483

- What was the difference between the highest number of flights cancelled by airline - Q and the lowest number of flights cancelled by airline-T out of all the six years ?  
 (a) 446 (b) 456 (c) 432  
 (d) 442 (e) None of these
- What was the approximate percentage increase in number of flights cancelled by airline-S in the year 2008 as compared to previous year ?  
 (a) 127 (b) 27 (c) 150  
 (d) 45 (e) 117
- What was the average number of flights cancelled by the airlines P, R, S and T in the year 2008 ?  
 (a) 551.5 (b) 501 (c) 405  
 (d) 442.4 (e) None of these
- In 2010, 40% flights are cancelled by airline-R due to bad weather and technical fault. How many flights are cancelled by airline-R due to technical fault ?  
 (a) 528 (b) 568 (c) 468  
 (d) 548 (e) None of these

- What is the approximate percentage of cancelled flights by airline's-P and R in 2007 compared to cancelled flights by airline-S in 2005 ?  
 (a) 356 (b) 280 (c) 265  
 (d) 340 (e) 314

**Directions (Q. 6-10):** Study the following table carefully to answer the questions that follow.

**Number of Soldiers (in thousands) retired during six different years**

Years	Academies				
	Air	Army	Navy	Coast Guard	BSF
2004	2.5	5.2	1.6	0.6	4.2
2005	3.7	6.1	1.9	1.8	5.1
2006	2.9	6.9	2.4	1.2	3.7
2007	5.4	7.2	2.8	2.7	5.2
2008	4.2	6.4	1.5	5.4	4.4
2009	5.6	8.4	3.5	3.6	6.3

- What is the difference between the total number of Soldiers retired from Air Force in the year 2006, 2007 and 2008 and the number of Soldiers retired from Army in the year 2009 ?  
 (a) 4700 (b) 4100 (c) 3600  
 (d) 36000 (e) None of these
- Total number of Soldiers retired from BSF in the years 2005 and 2006 together was approximately what per cent of the total number of Soldiers retired from Navy over all the years together ?  
 (a) 70 (b) 54 (c) 64 (d) 75 (e) 80
- What was the average number of Soldiers retired together in the year 2007 ?  
 (a) 4660 (b) 46600 (c) 23300  
 (d) 2330 (e) None of these

**RESPONSE GRID**

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
 6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)

9. In which force the number of the soldiers retired continuously increased from the year 2004 to 2009 ?  
 (a) Air Force (b) Army and BSF only  
 (c) Coast Guard (d) Navy only  
 (e) None of these
10. What was the respective ratio between the number of Soldiers retired from Army in the year 2004 and number of soldiers retired from Coast Guard in the year 2006 ?  
 (a) 13 : 4 (b) 13 : 6 (c) 3 : 26  
 (d) 26 : 3 (e) None of these

**Directions (Q. 11 - 15):** Study the following table carefully and answer the questions given below it.

**Number of Candidates Appearing for an Interview for a Post in Various Banks and Percentage of Candidates Qualifying**

Bank	Candidates Appearing	Percentage of Candidates Qualifying
H	1500	14
I	2200	26
J	3000	17
K	980	20
L	1200	28
M	2500	21

11. The number of candidates who did not qualify in bank K was approximately what per cent of the candidates who did not qualify in bank I ?  
 (a) 48 (b) 51 (c) 42 (d) 44 (e) 53
12. What was the respective ratio of the number of candidates who qualified in bank H to the number of candidates who qualified in bank L ?  
 (a) 2 : 5 (b) 5 : 6 (c) 3 : 7  
 (d) 5 : 8 (e) None of these
13. What was the average number of candidates who appeared for the interview in bank H, J and L together ?  
 (a) 1800 (b) 2000 (c) 1500  
 (d) 1700 (e) None of these
14. What was the difference between the number of candidates who qualified in banks I and J together and the number of candidates who did not qualify in the same banks ?  
 (a) 3028 (b) 3040 (c) 3036  
 (d) 3032 (e) None of these
15. What was the total number of candidates qualifying in banks K, L and M together ?  
 (a) 1042 (b) 1057 (c) 1050  
 (d) 1045 (e) None of these

**Directions (Q. 16-20) :** Study the following table carefully and answer the questions given below:

**Monthly expenditure (in thousands) by five people on Rent, Food, Children's Education, Clothes and Travelling.**

Expenditure People	Rent	Food	Children's Education	Clothes	Travelling
A	12.5	7.50	6.52	3.30	4.72
B	16.0	8.55	8.38	2.75	5.86
C	13.8	11.40	12.60	6.30	9.30
D	9.65	17.80	9.65	8.40	7.85
E	14.5	9.00	10.25	3.90	5.42

16. What is the total monthly expenditure made by D on rent, B on clothes and E on travelling together ?  
 (a) ₹ 18720 (b) ₹ 178200  
 (c) ₹ 17800 (d) ₹ 184720  
 (e) None of these
17. What is the average monthly expenditure on food by all the people together ?  
 (a) ₹ 108500 (b) ₹ 10850 (c) ₹ 54250  
 (d) ₹ 52450 (e) None of these
18. Whose monthly expenditure on all the heads together is the lowest among them ?  
 (a) A (b) B (c) C  
 (d) D (e) E

<b>RESPONSE GRID</b>	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)
	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)



19. If the monthly expenditure of C on children's education is increased by 5%, then what will be his yearly expenditure on children's education ?  
 (a) ₹ 158760 (b) ₹ 1587600 (c) ₹ 13230  
 (d) ₹ 132300 (e) None of these
20. What is the respective ratio between the monthly expenditure made by A on travelling and the monthly expenditure made by D on clothes ?  
 (a) 57 : 105 (b) 105 : 59 (c) 37 : 103  
 (d) 59 : 105 (e) None of these

**Directions (Q. 21-25) :** Study the following table carefully and answer the questions given below it.

**Percentage of Marks Obtained by Various Students in Various Subjects in an Examination**

Students	Marks					
	English (out of 100)	Hindi (out of 100)	Science (out of 100)	History (out of 100)	Maths (out of 100)	Geography (out of 100)
A	68	75	82	60	96	55
B	88	73	85	65	88	65
C	75	56	72	75	75	80
D	70	66	80	80	72	62
E	72	60	68	74	68	75
F	85	70	90	70	74	70

21. What is approximate overall percentage obtained by C in the examination ?  
 (a) 78 (b) 69 (c) 75  
 (d) 71 (e) 65
22. What is the difference in the marks obtained by B in English and Maths together and the marks obtained by F in the same subjects ?  
 (a) 24 (b) 17 (c) 15  
 (d) 28 (e) None of these
23. The marks obtained by E in Geography are what per cent of the marks obtained by E in Hindi ?  
 (a) 45 (b) 55 (c) 50  
 (d) 60 (e) None of these
24. What is the overall percentage of marks obtained by D in History and Geography together ?  
 (a) 73.40 (b) 72.80 (c) 70.50  
 (d) 68.80 (e) None of these
25. What is the average marks obtained by all the students together in Science ?  
 (a) 77.16 (b) 120.50 (c) 118  
 (d) 121 (e) None of these

**Directions (Q. 26-30):** Study the following table carefully to answer the questions that follow.  
**Number (N) of six type of Electronic Products sold by Six different stores in a month and the price per product (P) (price in ₹ '000) charged by each Store**

Store	A		B		C		D		E		F	
Product	N	P	N	P	N	P	N	P	N	P	N	P
L	54	135	48	112	60	104	61	124	40	136	48	126
M	71	4.5	53	3.8	57	5.6	49	4.9	57	5.5	45	4.7
N	48	12	47	18	52	15	54	11.5	62	10.5	56	11
O	52	53	55	48	48	50	54	49	59	47	58	51
P	60	75	61	68	56	92	44	84	46	76	59	78
Q	43	16	44	15	45	14.5	48	15.6	55	18.2	55	14.9

26. What is the total amount earned by Store C through the sale of M and O type products together ?  
 (a) ₹2719.2 lakh (b) ₹271.92 lakh  
 (c) ₹2.7192 lakh (d) ₹27.192 lakh  
 (e) None of these
27. Number of L type product sold by Store F is what percent of the number same type of products sold by Store E ?  
 (a) 76.33 (b) 124 (c) 83.33  
 (d) 115 (e) None of these
28. What is the difference in the amount earned by Store A through the sale of P type products and that earned by Store B through the sale of Q type products ?  
 (a) ₹38.4 lakh (b) ₹0.384 lakh (c) ₹3.84 lakh  
 (d) ₹384 lakh (e) None of these
29. What is the respective ratio of total number of N and L type products together sold by Store D and the same products sold by Store A ?  
 (a) 119 : 104 (b) 102 : 115 (c) 104 : 115  
 (d) 117 : 103 (e) None of these
30. What is the average price per product charged by all the Stores together for Product Q ?  
 (a) ₹14700 (b) ₹15700 (c) ₹15200  
 (d) ₹14800 (e) None of these



101 SPEED TEST

30

**DATA SUFFICIENCY BASED ON AGE, DIRECTIONS, RELATIONSHIP**

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Qs. 1 - 20) :** Each question below is followed by two statements I and II. You are to determine whether the data given in the statement is sufficient to answer the question. You should use the data and your knowledge of Mathematics to choose between the possible answers.

Give answer (a) if the statement I alone is sufficient to answer the question, but the statement II alone is not sufficient.

Give answer (b) if the statement II alone is sufficient to answer the question, but the statement I alone is not sufficient.

Give answer (c) if both statements I and II together are needed to answer the question.

Give answer (d) if either the statement I alone or the statement II alone is sufficient to answer the question.

Give answer (e) if you cannot get the answer from the statements I and II together, but need even more data.

1. What is the age of C, in a group of A, B, C, D and E, whose average age is 45 years?
  - I. Average of the ages of A and B is 53 years.
  - II. Average of the ages of D and E is 47 years
2. Tower 'P' is in which direction with respect to tower 'Q'?
  - I. P is to the West of H, which is to the South of Q.
  - II. F is to the West of Q and to the North of P.
3. How is K related to N?
  - I. N is the brother of M, who is the daughter of K.
  - II. F is the husband of K
4. What is Nidhi's age?
  - I. Nidhi is 3 times younger than Rani.
  - II. Surekha is twice the age of Rani and the sum of their ages is 72.
5. What is Seema's age?
  - I. Seema's age is half of Reema age
  - II. Reema is 5 years younger than her sister.
6. What is Deepali's age?
  - I. Deepali is two times younger than Nisha.
  - II. Supriya is twice the age of Nisha.

7. In a row of girls facing North, what is D's position from the left end?
  - I. D is twentieth from the right end.
  - II. There are ten girls between B and D.
8. Town M is towards which direction of Town K?
  - I. Town K is towards North-West of Town D.
  - II. Town M is towards South - East of Town D.
9. How many daughters does P have?
  - I. K and M are sisters of T.
  - II. T's father is husband of P's mother.
10. Towards which direction is Village M from Village T?
  - I. Village P is to the south of Village M and Village P is to the west of Village T.
  - II. Village K is to the east of Village M and Village K is to the north of Village T.
11. How is D related to M?
  - I. K and D are the only sisters of R.
  - II. M is married to R's father.
12. What is R's position from the left end in a row of children facing South?
  - I. There are forty children in the row.
  - II. D is tenth to the left of R and fifteenth from the right end of the row.
13. Towards which direction was D facing when he started his journey?
  - I. D walked 20 metres after he started, took a right turn and walked 30 metres and again took a right turn and faced West.
  - II. D walked 20 metres after he started, took a left turn and walked 30 metres and again took a left turn and faced West.
14. How many daughters does A have?
  - I. A has four children.
  - II. B and C are sisters of D who is son of A.

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

- 15. How far is A from the starting point?
  - I. A moves 5 km. towards East, then 2 km. towards left, 10 km, towards right and finally. 2 km, towards right and stops
  - II. A moves 2 km. towards East, then 2 km. towards right, 13 km, towards left and finally, 2 km. towards left and stops.
- 16. In a row of 40 students facing North, how many students are there between R and S?
  - I. S's position in the row is 15th from the right end.
  - II. R's position in the row is 4th from the left end.
- 17. How many children does Suneeta have?
  - I. X is the only daughter of Suneeta.
  - II. Y is brother of X.
- 18. Pole X is in which direction with respect to pole Y?
  - I. Pole H is to the north-east of pole X and to the north of pole Y.
  - II. Pole R is to the east of pole X and to the north of pole Y.
- 19. How many children does Seema have?
  - I. Seema, the mother of Varsha's sister has only one son.
  - II. Varsha has only three siblings.
- 20. How is Anil related to Sanjay?
  - I. Sanjay's son is the brother of only sister of Anil.
  - II. Radhika, the only daughter of Sanjay has only two brothers.

<b>RESPONSE GRID</b>	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)
	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)			



## COMPARISON, CRITICAL ANALYSIS, DATE, DAY BASED ON DATA SUFFICIENCY

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Direction (Qs 1 to 30):** Each question below consists of a question and two statements numbered I and II are given below it. You are to determine whether the data provided in the statements are sufficient to answer the question. Read both the statements and

**Give answer (a)** if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient.

**Give answer (b)** if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient.

**Give answer (c)** if the data in Statement I alone or in Statement II alone are sufficient to answer the question

**Give answer (d)** if the data in both Statements I and II are not sufficient to answer the question.

**Give answer (e)** if the data in both the Statements I and II together are necessary to answer the question.

1. What does 'Pe' mean in a code language?
  - I. 'Na Si La Lo' means 'you may go now' and 'Ne Si Na Pe' means 'he may go there' in that code language.
  - II. 'Ki Se Pe Bo' means 'come there and see' and 'Se Ni Bo Ki' means 'come here and see' in that code language.
2. Who among M, N, O, P and Q is the youngest?
  - I. N, the 2nd youngest, is younger than Q, O and M.
  - II. O, the 2nd oldest, is older than N.
3. What is the code for 'walks' in the code language?
  - I. In the code language 'she walks fast' is written as 'he ka to'.
  - II. In the code language 'she learns fast' is written as 'jo ka he'.
4. On which month of the year was Divya born?
  - I. Her mother correctly remembers that Divya was born after June and before September.
  - II. Her father correctly remembers that she was born after March and before August.
5. What is the code for 'those' if in a certain language 'those lovely red roses' is written as 'pe so la ti'?
  - I. 'ni jo ke pe' means 'stopped at red light'.
  - II. 'ba di ti ga' means 'roses are very pretty' and 'fo hi la' means 'lovely day outside'.
6. Amongst, A, B, C, D, E and F, each are having a different height. Who is the shortest?
  - I. C is shorter than only B.
  - II. A is taller than only D and F.
7. How is 'must' written in a code language?
  - I. 'you must see' is written as 'la pa ni' and 'did you see' is written as 'jo ni pa' in that code language.
  - II. 'you did that' written as 'pa si jo' in that code language.
8. On which day of the week does Arti's birthday fall?
  - I. Sonu correctly remembers that Arti's birthday falls after Wednesday but before Sunday.
  - II. Raj correctly remembers that Arti's birthday falls before Friday but after Tuesday.
9. How is 'sure' written in a code language?
  - I. 'he is sure' is written as 'ja ha ma' in that code language.
  - II. 'is he sure' is written as 'ka ja ma' in that code language.
10. Among P, Q, R, S and T each having different age, who is the youngest among them?
  - I. Q is younger than only P.
  - II. S is older than only R.
11. On which day of the week did Sourav visit Delhi?
  - I. Sourav visited Delhi after Monday but before Thursday but not on an odd day of the week.
  - II. Sourav visited Delhi before Friday but after Monday.
12. On which day of the week from Monday to Sunday did Arub leave for London?
  - I. Arun did not leave for London during the weekend.
  - II. Arun's brother left for London on Friday tw days after Arun left for London.
13. How is 'new' written in a code language?
  - I. 'new good clothes' is written as '5 3 9' in that code language.
  - II. 'good clothes are costly' is written as '9 6 7 3' in that code language.
14. On which day in July was definitely Mohon's mother's birthday?
  - I. Mohan correctly remembers that mother's birthday is before eighteenth but after twelfth July.
  - II. Mohan's sister correctly remembers that their mother's birthday is after fifteenth but before nineteenth July.

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. How is 'near' written in a code language?
  - I. 'go near the tree' is written as 'sa na pa ta' in that code language.
  - II. 'tree is near home' is written as 'jas pa da sa' in that code language.
16. Among A, B, C, D and E, each having scored different mark in an exam, who has scored the lowest marks?
  - I. D has scored more marks than only three of them.
  - II. A has scored more marks than only E.
17. How is 'jump' written in a certain code language?
  - I. 'Jump and play' is written as '3 5 7' in that code language.
  - II. 'play for now' is written as '5 9 8' in that code language.
18. Among P, Q, R, S and T, each having a different height, who is the tallest?
  - I. T is taller than only P among them.
  - II. S is shorter than only R among them.
19. On which day of the month is definitely Meena's birthday?
  - I. Meena's brother correctly remembers that Meena's birthday is after 25th but before 29th of this month.
  - II. Meena's father correctly remembers that Meena's birthday is after 27th but before 31st of this month.
20. What does 'be' mean in a code language?
  - I. 'sa ka ho' means 'water satisfies thirst' in that code language.
  - II. 'be ho na' means 'water is blue' in that code language.
21. Among P, Q, R, S and T who reached the office first, if each of them reached in different time?
  - I. R reached before Q only.
  - II. S reached after P only.
22. What is the code for 'brave' in the code language?
  - I. In the code language 'boy is brave' is written as 'ha ka ta'
  - II. In the code language 'brave and clever' is written as 'na pe ka'
23. How many children are there in the class?
  - I. Shamika ranks 13th from the top and is 3 ranks above Rajesh who is 18th from the bottom.
  - II. Rajesh is 16th from the top and is 5 ranks above suresh who is 13th from the bottom.
24. Who amongst P, R, S, T and V, each having a different height, is the tallest?
  - I. T is taller than R and V.
  - II. P is shorter than R.
25. What is the code for 'your' in the code language ?
  - I. In the code language 'buy your own book' is written as 'ta na pi la' and 'do try your best' is written as 'sa jo ta be'.
  - II. IN the code language 'please submit your reports' is, written as 'ke si do ta' your house is grand' is written as 'fi ta go hi'.
26. How is 'come' written in a code language ?
  - I. 'When will you come' is written as 'da na pa ka'.
  - II. 'Can you come back' is writter as 'sa pa ka ho'
27. On which day in March was W's birthday?
  - I. W's brother correctly remembers that W's birthday was before fifteenth but after thirteenth March.
  - II. W's sister correctly remembers that W's birthday was after eleventh but before sixteenth March.
28. How is 'never' written in a code language?
  - I. 'never do this' is written as 'pa, da na' in that code language and ' do this again' is written as 'na ka da' in that code language.
  - II. 'always do this' in written as 'ma pa ja' in that code language.
29. Among P, Q, R, S and T each having a different height who is the shortest?
  - I. Q and R are taller than only P and T.
  - II. R is shorter than S
30. What is K's position from the left end of a row of thirty children?
  - I. D is tenth from the right and of the row and there are five children between D and K.
  - II. There are nine children between K and M.

<b>RESPONSE GRID</b>	15. (a) (b) (c) (d) (e)	16. (a) (b) (c) (d) (e)	17. (a) (b) (c) (d) (e)	18. (a) (b) (c) (d) (e)	19. (a) (b) (c) (d) (e)
	20. (a) (b) (c) (d) (e)	21. (a) (b) (c) (d) (e)	22. (a) (b) (c) (d) (e)	23. (a) (b) (c) (d) (e)	24. (a) (b) (c) (d) (e)
	25. (a) (b) (c) (d) (e)	26. (a) (b) (c) (d) (e)	27. (a) (b) (c) (d) (e)	28. (a) (b) (c) (d) (e)	29. (a) (b) (c) (d) (e)
	30. (a) (b) (c) (d) (e)				



SECTION TEST QUANTITATIVE APTITUDE

Max. Marks : 50

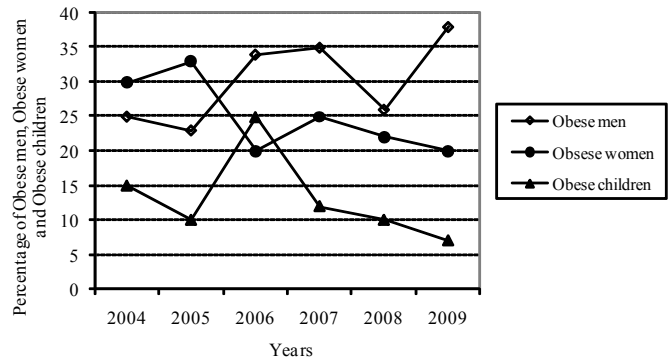
No. of Qs. 50

Time : 35 min.

Date : ...../...../.....

1.  $[(58)^2 \times (48)^2] \div ? = 2152.96$   
 (a) 60 (b) 2500 (c) 50  
 (d) 3600 (e) None of these
2.  $7432 \div 92.9 \times 18.5 = ?$   
 (a) 1450 (b) 1600 (c) 1480  
 (d) 1560 (e) None of these
3.  $92 \times 21 - \sqrt[3]{?} = 1968$   
 (a) 1367631 (b) 111 (c) 1366731  
 (d) 1367 (e) None of these
4.  $9634 \times \frac{3}{8} \div ? = 28.902$   
 (a) 115 (b) 95 (c) 110  
 (d) 120 (e) None of these
5.  $19.99 \times 9.9 + 99.9 = ?$   
 (a) 129.79 (b) 297.801 (c) 1009  
 (d) 296.91 (e) None of these
6.  $5554.999 \div 50.007 = ?$   
 (a) 110 (b) 150 (c) 200  
 (d) 50 (e) 125
7.  $(18.001)^3 = ?$   
 (a) 5830 (b) 5500 (c) 6000  
 (d) 6480 (e) 5240

Directions (Qs. 11-15): Study the following graph and table carefully and answer the questions given below them.



Total Number of Men, Women and Children in the state over the years

Years	Men	Women	Children
2004	54,000	38,000	15,000
2005	75,000	64,000	21,000
2006	63,000	60,000	12,000
2007	66,000	54,000	16,000
2008	70,000	68,000	20,000
2009	78,000	75,000	45,000

Directions (Qs.8-10): Find out the approximate value which should replace the question mark (?) in the following questions. (You are not expected to find out the exact value).

8.  $95^{3.7} \div 95^{0.9989} = 95^?$   
 (a) 1.9 (b) 3 (c) 2.99  
 (d) 3.6 (e) 2.7
9.  $\sqrt{1000} + \frac{3.001}{4.987}$  of 1891.992 = ?  
 (a) 2500 (b) 1230 (c) 1640  
 (d) 1525 (e) 2130
10.  $0.0004 \div 0.0001 \times 36.000009 = ?$   
 (a) 0.10 (b) 1.45 (c) 145  
 (d) 14.5 (e) 1450

11. What was the **approximate** average of obese men, obese women and obese children in 2007?  
 (a) 12,683 (b) 12,795 (c) 12,867  
 (d) 12,843 (e) 12,787
12. The number of obese men in the year 2009 was what per cent of the men not suffering from obesity in the same year?  
 (a) 55 (b) 60 (c) 50.5  
 (d) 65.5 (e) None of these
13. What was the ratio of the obese women in the year 2006 to the obese men in the year 2008?  
 (a) 6 : 7 (b) 21 : 65 (c) 15 : 73  
 (d) 48 : 77 (e) None of these

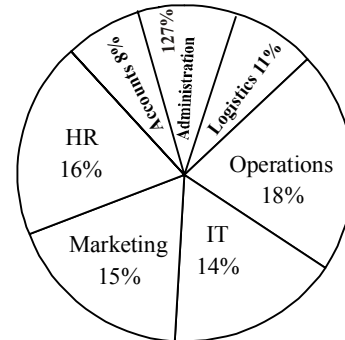
RESPONSE GRID

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
 6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)    9. (a)(b)(c)(d)(e)    10. (a)(b)(c)(d)(e)  
 11. (a)(b)(c)(d)(e)    12. (a)(b)(c)(d)(e)    13. (a)(b)(c)(d)(e)

14. What is the difference between the number of obese women and obese children together in the year 2006 and the number of obese men in the same year?  
 (a) 5,475 (b) 5,745 (c) 4,530  
 (d) 31,650 (e) None of these
15. What was the total number of children not suffering from obesity in the year 2004 and 2005 together?  
 (a) 4,350 (b) 31,560 (c) 4,530  
 (d) 31,650 (e) None of these
16. 4 boys and three girls are to be seated in a row in such a way that no two boys sit adjacent to each other. In how many different ways can it be done?  
 (a) 5040 (b) 30 (c) 144  
 (d) 72 (e) None of these
17. Mr. 'X' invested certain amounts in two different schemes 'A' & 'B'. Scheme 'A' offers simple interest at 12 p.c.a. and Scheme 'B' offers compound interest at 10 p.c.p.a. Interest accrued on the amount invested in Scheme A in 2 years was ₹ 3600 and the total amount invested was ₹ 35,000. What was interest accrued on the amount invested in Scheme 'B'?  
 (a) ₹ 4,800 (b) ₹ 4,200  
 (c) ₹ 4,000 (d) Cannot be determined  
 (e) None of these
18. 12 men take 36 days to do a work while 12 women complete  $\frac{3}{4}$ th of the same work in 36 days. In how many days 10 men and 8 women together will complete the same work?  
 (a) 6 (b) 27  
 (c) 12 (d) Data inadequate  
 (e) None of these
19. A grocer purchased 2 kg. of rice at the rate of ₹ 15 per kg. and 3 kg. of rice at the rate of ₹ 13 per kg. At what price per kg. should he sell the mixture to earn  $33\frac{1}{3}\%$  profit on the cost price?  
 (a) ₹ 28.00 (b) ₹ 20.00 (c) ₹ 18.40  
 (d) ₹ 17.40 (e) None of these
20. A boat takes 6 hours to travel from place M to N downstream and back from N to M upstream. If the speed of the boat in still water is 4 km./hr., what is the distance between the two places?  
 (a) 8 kms. (b) 12 kms. (c) 6 kms.  
 (d) Data inadequate (e) None of these

**Directions (Qs. 21-25):** Study the following information carefully to answer these questions.

**Percentage of employees in various departments of an organization and these male-female ratio**  
**Total No. of Employees = 2500**



**Ratio– Male : Female**

Department	Male : Female
Administration	7 : 5
Accounts	2 : 3
HR	5 : 3
Marketing	7 : 8
IT	3 : 4
Operations	5 : 4
Logistics	6 : 5
Printing	2 : 1

21. What is the ratio of male employees in Administration to those in Printing Department?  
 (a) 7 : 4 (b) 4 : 7 (c) 3 : 4  
 (d) 7 : 3 (e) None of these
22. What is the difference between the total number of employees in IT and that in Operations Department?  
 (a) 75 (b) 150 (c) 100  
 (d) 50 (e) None of these
23. What is the ratio of the total number of males in HR and Marketing to the total number of females in these two departments?  
 (a) 13 : 15 (b) 15 : 13 (c) 13 : 17  
 (d) 17 : 14 (e) None of these
24. How many female employees are there in the HR Departments?  
 (a) 250 (b) 120 (c) 125  
 (d) 150 (e) None of these
25. What is the difference between the numbers of male and female employees in Logistics Department?  
 (a) 50 (b) 25 (c) 75  
 (d) 100 (e) None of these

**RESPONSE  
GRID**

14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e)  
 19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e) 21. (a)(b)(c)(d)(e) 22. (a)(b)(c)(d)(e) 23. (a)(b)(c)(d)(e)  
 24. (a)(b)(c)(d)(e) 25. (a)(b)(c)(d)(e)



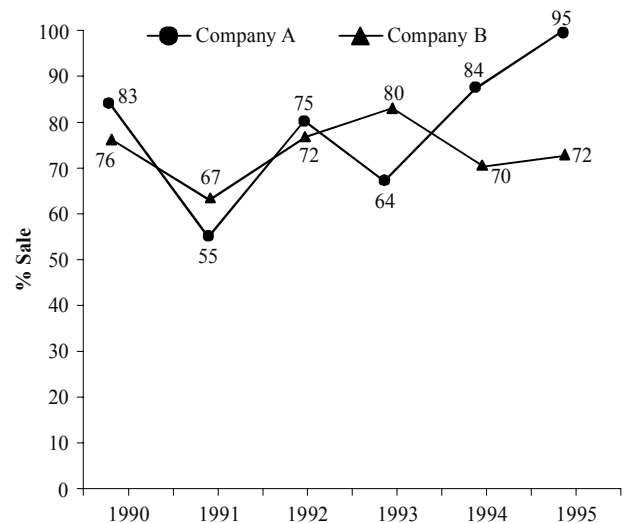
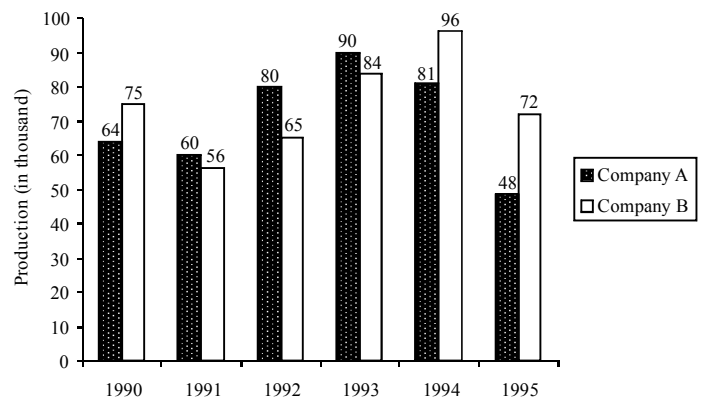
**Directions (Qs. 26-30):** Study the following information carefully and answer the questions given below it.

Out of the 15,000 candidates eligible for an Officer's post in a Public Sector Bank, 450 candidates have prior experience of working in Public Sector banks in rural area only. 25% of the total number of candidates have prior experience of working in Public Sector Banks in urban areas only. 12% of the total number of candidates have prior experience of working in Private Sector Banks in urban areas only. 2% of the total number of candidates have prior experience of working in Private Sector banks in rural areas only. 3,600 candidates have worked in both Public and Private Sector Banks in urban areas only. 600 candidates have worked in both Public and Private Sector Banks in rural areas only. The remaining candidates have no prior experience of working in the Banking industry.

26. How many candidates have prior experience of working in rural areas (both Public Sector and Private Sector Banks together)?  
 (a) 4,350 (b) 4,950 (c) 4,800  
 (d) 4,900 (e) 4,850
27. How many candidates have prior experience of working in Public Sector Banks (Urban and Rural areas together)?  
 (a) 12,450 (b) 8,400 (c) 10,050  
 (d) 10,650 (e) None of these
28. What is the ratio of the candidates who have a prior experience of working in Public Sector Banks in rural areas only to the candidates who have a prior experience of working in Private Sector Banks in rural areas only?  
 (a) 4 : 3 (b) 3 : 2 (c) 2 : 3  
 (d) 3 : 4 (e) None of these
29. What is the total number of candidates who have worked in Private Sector Banks in urban areas?  
 (a) 1,800 (b) 2,250 (c) 4,050  
 (d) 36,600 (e) None of these
30. The candidates who have no prior experience of working in the banking industry are what per cent of the candidates who have worked in Public Sector Banks in both urban and rural areas together?  
 (a) 60.5 (b) 63.5 (c) 62  
 (d) 64 (e) None of these
31. Sonika invested an amount of ₹ 5800 for 2 years. At what rate of compound interest will she get an amount of ₹ 594.50 at the end of two years?  
 (a) 5 pcpa (b) 4 pcpa (c) 6 pcpa  
 (d) 8 pcpa (e) None of these
32. If numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is  $\frac{25}{51}$ . What is the original fraction?  
 (a)  $\frac{11}{17}$  (b)  $\frac{11}{15}$  (c)  $\frac{15}{17}$   
 (d)  $\frac{13}{15}$  (e) None of these

33. In how many different ways can the letter of the word 'BANKING' be arranged?  
 (a) 5040 (b) 2540 (c) 5080  
 (d) 2520 (e) None of these
34. Meenal purchased a car for ₹ 2,50,000 and sold it for ₹ 3,48,000. What is the percent profit she made on the car?  
 (a) 40 (b) 39.2 (c) 38.4  
 (d) 38 (e) None of these
35. There are some parrots and some tigers in a forest. If the total number of animal heads in the forest is 858 and the total number of animal legs is 1,846, what is the number of parrots in the forest?  
 (a) 845 (b) 833  
 (c) 800 (d) Cannot be determined  
 (e) None of these

**Directions (Qs. 36-40):** Following bar-graph shows the number (in thousand) of tyres produced by two companies A and B during the period 1990-95. The line graph shows the percentage of sales of these two companies in this period.



**RESPONSE  
GRID**

26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)  
 31. (a)(b)(c)(d)(e) 32. (a)(b)(c)(d)(e) 33. (a)(b)(c)(d)(e) 34. (a)(b)(c)(d)(e) 35. (a)(b)(c)(d)(e)

36. What is the percentage rise in selling of tyres by Company A from the year 1992 to 1993?  
 (a) 12% (b) 8.4% (c) 17.6%  
 (d) 24.2% (e) None of these
37. In which year is the percentage rise or fall in production of tyres by Company B the maximum as compared to its previous year?  
 (a) 1991 (b) 1992 (c) 1993  
 (d) 1994 (e) 1995
38. The total number of tyres sold by Company A in the year 1994 is what percentage more/less than the number of tyres sold by it in 1993?  
 (a) 12.725% (b) 18.125% (c) 22.225%  
 (d) 24.625% (e) 27.5%
39. The total number of tyres sold by Company B in the year 1995 is what percentage of the total number of tyres produced by Company A in the year 1993?  
 (a) 52.5% (b) 57.6% (c) 60%  
 (d) 62.5% (e) 78.4%
40. What is the ratio of the average number of tyres produced by Company A in all six years together to the total number of tyres sold by Company B in the year 1994?  
 (a) 158:143 (b) 178:151 (c) 207:190  
 (d) 235:224 (e) 142:193
41. If the numerator of a fraction is increased by 20% and its denominator by 25%, then the fraction so obtained is  $\frac{3}{5}$ . What is the original fraction?  
 (a)  $\frac{3}{5}$  (b)  $\frac{3}{8}$   
 (c)  $\frac{5}{8}$  (d) Cannot be determined  
 (e) None of these
42. Sri Ganesh bought 40 kgs of wheat at ₹ 12.50 per kg and 25 kgs of it at ₹ 15.10 per kg. He mixed them together. At what rate should he sell the mixture to earn 10% profit?  
 (a) ₹ 13.50 (b) ₹ 13.25 (c) ₹ 14.75  
 (d) ₹ 14.85 (e) None of these
43. A team of 5 children is to be selected out of 4 girls and 5 boys such that it contains at least 2 girls. In how many different ways the selection can be made?  
 (a) 105 (b) 60 (c) 100  
 (d) 120 (e) None of these
44. Suresh invested a sum of ₹ 15000 at 9 per cent per annum simple interest and ₹ 12000 at 8 per cent per annum compound interest for a period of 2 years. What amount of interest did Suresh earn in 2 years?  
 (a) ₹ 4096.60 (b) ₹ 4696.80 (c) ₹ 4896.60  
 (d) ₹ 4698.60 (e) None of these
45. A, B and C started a business with investment in the ratio 5 : 6 : 8 respectively. After one year C withdrew 50% of his capital and A increased his capital by 60% of his investment. After two years in what ratio should the earned profit be distributed among A, B and C respectively?

- (a) 2 : 3 : 3 (b) 4 : 3 : 2  
 (c) 13 : 12 : 12 (d) Cannot be determined  
 (e) None of these

**Direction (Qs. 46-50) :** In each of the following questions, a question is followed by information given in three statements. You have to study the question alongwith the statements and decide, the information given in which of the statement(s) is necessary to answer the question.

46. In how many days can 16 men and 8 women together complete the piece of work?  
 I. 8 men complete the piece fo work in 10 days.  
 II. 16 women complete the piece of work in 10 days.  
 III. 5 women take 32 days to complete the piece of work.  
 (a) 103 (b) 109.5 (c) 113  
 (a) Only I and II (b) Only I and III  
 (c) Only II and III (d) Only I and either II or III  
 (e) Any two of the three
47. What is the speed of the train?  
 I. Train crosses a pole in 10 seconds  
 II. Length of the train is 240 metres.  
 III. Train crosses a platform of equal length in 20 seconds.  
 (a) Only I and II (b) Only II and III  
 (c) All I, II and III (d) Any two of the three  
 (e) II and either I or III
48. What is the area of the square?  
 I. Measure of diagonal of the square is given.  
 II. Measure of one side of square is given.  
 III. Perimeter of the square is given.  
 (a) Only II (b) Only III  
 (c) Only I and III (d) Only II and III  
 (e) Any one of the three
49. What is the two digit number?  
 I. The number obtained by interchanging the digits of the number is greater than the original number by 18.  
 II. Sum of the two digits of the number is 14.  
 III. Difference between the two digits of the number is 2.  
 (a) Any two of the three  
 (b) Only I and III  
 (c) II and either I or III  
 (d) All the three  
 (e) III and either I or II
50. What is the rate of interest p.c.p.a.?  
 I. Simple interest earned per annum is ₹ 5,300  
 II. The difference between the compound and simple interest on an amount is ₹ 1,060 at the end of 2 years.  
 III. An amount doubles itself in 5 years with simple interest.  
 (a) All the three (b) Only III  
 (c) Either II or III (d) Only III or I and II  
 (e) Question cannot be answered even with the information in all three statements



**ALPHABET AND NUMBERS ARRANGEMENT**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1-5) :** Answers the questions given below referring to the following arrangement:

J \* R 3 P L 2 # I N 7 O C @ K 5 D = M \$ 6 B < A Q 4

1. Four of the following five are alike in a certain way as regards their position in the above arrangement and so form a group. Which is the one that does not belong to that group?  
(a) 2 3 # (b) O I C (c) K O 5  
(d) # P I (e) B \$ <
2. What will come in the place of the question mark (?) in the following series based on the above arrangement?  
P R J # L 3 7 1 2 @ O N ?  
(a) D K C (b) 5 @ O (c) D K @  
(d) = 5 @ (e) None of these
3. If the above series is re-arranged in the reverse order, which will be the eleventh element to the left to the sixteenth element from the left end?  
(a) J (b) 6 (c) B  
(d) < (e) None of these
4. How many such numbers are there in the above arrangement each of which is immediately preceded by a consonant and not immediately followed by a symbol?  
(a) None (b) Two (c) Four  
(d) Three (e) None of these
5. How many such symbols are there in the above arrangement each of which is immediately preceded by a number and immediately followed a consonant?  
(a) One (b) Two (c) Three  
(d) More than three (e) None
6. If it is possible to make a meaningful word with the third, the fifth, the seventh and the tenth letters of the word 'OUTRAGEOUS', which of the following will be the second letter of that word? If more than one such word can be formed, give 'X' as the answer and if no such word can be formed, give 'Y' as the answer.  
(a) E (b) A (c) S  
(d) Y (e) X
7. The positions of the first and the second digits in the number 7986032451 are interchanged. Similarly the positions of the third and fourth digits are interchanged and so on. Which of the following will be the fifth digit from the right end after the rearrangement?  
(a) 3 (b) 6 (c) 4  
(d) 0 (e) None of these
8. If the letters of the word 'PRINCE' are rearranged as they appear in the English alphabet, the position of how many letters will remain unchanged after the rearrangement?  
(a) Four (b) One (c) Two  
(d) Three (e) None of these

9. How many such pairs of letters are there in the word 'CHILDREN' each of which has as many letters between them in the word as there are between them in the English alphabet?  
(a) 3 (b) 5 (c) 4  
(d) 2 (e) None of these
10. How many such digits are there in the number 764528 each of which is as far away from the beginning of the number as when the digits are arranged in descending order within the number?  
(a) None (b) One (c) Two  
(d) Three (e) More than three
11. The letters in the word DANGEROUS are changed in such a way that the consonants are replaced by the previous letter in the English alphabet and the vowels are replaced by the next letter in the English alphabet. Which of the following will be the third letter from the left end of the new set of letters?  
(a) B (b) M (c) O  
(d) L (e) None of these
12. Each vowel of the word ADJECTIVE is substituted with the next letter of the English alphabetical series, and each consonant is substituted with the letter preceding it. How many vowels are present in the new arrangement?  
(a) Four (b) One (c) Two  
(d) Three (e) None of these

**DIRECTIONS (Q.13- 17) :** Study the sets of numbers given below and answer the question, which follow:

- 489 541 654 953 783
13. If in each number, all the three digits are arranged in ascending order, which of the following will be the lowest number?  
(a) 489 (b) 541 (c) 654  
(d) 953 (e) 783
  14. If five is subtracted from each of the numbers which of the following numbers will be the difference between the second digit of second highest number and the second digit of the highest number?  
(a) Zero (b) 3 (c) 1  
(d) 4 (e) 2
  15. If in each number the first and the second digits are interchanged, which will be the third highest number?  
(a) 489 (b) 541 (c) 654  
(d) 953 (e) 783

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. Which of the following numbers will be obtained if the first digit of lowest number is subtracted from the second digit of highest number after adding one to each of the numbers?  
 (a) 1 (b) 2 (c) 3  
 (d) 4 (e) 5
17. If in each number, the first and the last digits are interchanged, which of the following will be the second highest number?  
 (a) 489 (b) 541 (c) 654  
 (d) 953 (e) 783
18. How many meaningful English words can be formed with the letters ARILT using each letter only once in that word?  
 (a) None (b) One (c) Two  
 (d) Three (e) More than three

**DIRECTIONS (Q.19- 21) :** The following questions are based upon the alphabetical series given below:

SLUAYJVEIONQGZBDRH

19. If 'SU' is related 'HD' and 'UY' is related to 'DZ' in a certain way, to which of the following is YV related to following the same pattern?  
 (a) ZQ (b) IN (c) BG  
 (d) QO (e) DZ
20. What will come in place of question (?) mark in the following series?  
 LAUJYIEG?  
 (a) ZH (b) IB (c) NR  
 (d) QR (e) QH
21. In a certain code 'VERB' is coded as 'YJBG' and 'QUIZ' is coded as 'OSVQ'. How will 'JOHN' be coded in the same code language?  
 (a) EQDG (b) AEDI (c) YIRO  
 (d) VNRQ (e) EQGD
22. The positions of the first and the sixth letters in the word CONTAGIOUS are interchanged. Similarly, the positions of the second and the seventh letters are interchanged, and so on. Which letter will be the second to the right of the fifth letter from the right end?  
 (a) O (b) N (c) I  
 (d) T (e) None of these
23. Each odd digit in the number 5263187 is substituted by the next higher digit and each even digit is substituted by the previous lower digit and the digit so obtained are rearranged in ascending order, which of the following will be the third digit from the left end after the rearrangement?  
 (a) 2 (b) 4 (c) 5  
 (d) 6 (e) None of these
24. How many such pairs of letters are there in the word SEARCHES each of which has as many letters between them in the word as in the English alphabet?  
 (a) None (b) One (c) Two  
 (d) Three (e) More than three
25. If it is possible to form only one such number with the third, the sixth and the seventh digits of the number 7394261 which is the perfect square of a two-digit odd number, which of the following will be the first digit of that two-digit odd number?

- (a) 9  
 (b) 3  
 (c) 5  
 (d) No such number can be formed  
 (e) More than one such number can be formed

**DIRECTIONS (Q.26-Q.30) :** In each of the following questions, two rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules and the questions below the rows of numbers are to be answered. The operation of numbers progress from the left to the right.

**Rules:**

- (i) If an odd number is followed by another composite odd number, they are to be added.  
 (ii) If an even number is followed by an odd number they are to be added.  
 (iii) If an even number is followed by a number which is the perfect square, the even number is to be subtracted from the perfect square.  
 (iv) If an odd number is followed by a prime odd number, the first number is to be divided by the second number.  
 (v) If an odd number is followed by an even number, the second one is to be subtracted from the first number.

26. 15 8 21  
 p 3 27  
 If 'p' is the resultant of the first row, what will be the resultant of the second row?  
 (a) 58 (b) 76 (c) 27  
 (d) 82 (e) None of these
27. 12 64 17  
 20 m 16  
 If 'm' is the resultant of the first row, what will be the resultant of the second row?  
 (a) 69 (b) 85 (c) 101  
 (d) 121 (e) None of these
28. 85 17 35  
 16 19 r  
 If 'r' is the resultant of the first row, what will be the resultant of the second row?  
 (a) 175 (b) -5 (c) 75  
 (d) 210 (e) None of these
29. 24 15 3  
 d 6 15  
 If 'd' is the resultant of the first row, what will be the resultant of the second row?  
 (a) 37 (b) 8 (c) 22  
 (d) 29 (e) None of these
30. 28 49 15  
 h 3 12  
 If 'h' is the resultant of the first row, what will be the resultant of the second row?  
 (a) 12 (b) 15 (c) 19  
 (d) 27 (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)



101 SPEED TEST

34

com

## ANALOGY

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. A 'Square' is related to 'Cube' in the same way as a 'Circle' is related to
  - (a) Sphere
  - (b) Circumference
  - (c) Diameter
  - (d) Area
  - (e) None of these
2. In a certain code BRIGHT is written as JSCSGG. How is JOINED written in that code?
  - (a) HNIEFO
  - (b) JPKEFO
  - (c) JPKMDC
  - (d) KPJCDM
  - (e) None of these
3. '34' is related to '12' in the same way as '59' is related to
  - (a) 45
  - (b) 14
  - (c) 42
  - (d) 38
  - (e) 47
4. 'Mustard' is related to 'Seed' in the same way as 'Carrot' is related to
  - (a) Fruit
  - (b) Stem
  - (c) Flower
  - (d) Root
  - (e) None of these
5. ADE : FGJ :: KNO : ?
  - (a) PQR
  - (b) TPR
  - (c) PQT
  - (d) RQP
  - (e) PRS
6. DGPGJ : MPQPS :: KNENQ : ....?
  - (a) RUFUX
  - (b) RFUFX
  - (c) RXUXF
  - (d) RFUFX
  - (e) None of these
7. UTS : EDC :: WVU : ?
  - (a) XWV
  - (b) WXY
  - (c) SJM
  - (d) RPO
  - (e) SRP
8. NUMBER : UNBMRE :: GHOST : ?
  - (a) HOGST
  - (b) HOGTS
  - (c) HGOST
  - (d) HGSOT
  - (e) HGOTS
9. DRIVEN : EIDRVN :: BEGUM : ?
  - (a) EUBGM
  - (b) MGBEU
  - (c) BGMEU
  - (d) UEBGM
  - (e) BGMUE
10. PRLN : XZTV :: JL FH : ?
  - (a) RTNP
  - (b) NPRT
  - (c) NRPT
  - (d) NTRP
  - (e) RPNT
11. XWV : UTS :: LKJ : ... ?
  - (a) IHG
  - (b) JKL
  - (c) STU
  - (d) MNO
  - (e) KIG
12. QYGO : SAIQ :: UCKS : ?
  - (a) WDMV
  - (b) VFNU
  - (c) WDLU
  - (d) VEMU
  - (e) WEMU
13. YAWC : UESG :: QIOK : ?
  - (a) MINC
  - (b) MIKE
  - (c) KOME
  - (d) MMKO
  - (e) LIME
14. CFIL : PSVY :: HKNQ : ?
  - (a) NPSV
  - (b) LPSY
  - (c) LORU
  - (d) MOQT
  - (e) MPSU
15. 122 : 170 :: 290 : ?
  - (a) 299
  - (b) 315
  - (c) 332
  - (d) 344
  - (e) 362

RESPONSE  
GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. 42 : 56 :: 110 : ?  
 (a) 132 (b) 136 (c) 144  
 (d) 148 (e) 156
17. 12 : 20 :: 30 : ?  
 (a) 15 (b) 32 (c) 35  
 (d) 42 (e) 48
18. 3 : 10 :: 08 : ?  
 (a) 10 (b) 13 (c) 17  
 (d) 14 (e) 16
19. 08 : 28 : 15 : ?  
 (a) 63 (b) 126 (c) 65  
 (d) 124 (e) 26
20. 08 : 09 :: 64 : ?  
 (a) 16 (b) 25 (c) 125  
 (d) 32 (e) 20
21. 6 : 24 :: 5 : ?  
 (a) 23 (b) 22 (c) 26  
 (d) 20 (e) 19
22. 6 : 35 :: 11 : ?  
 (a) 120 (b) 115 (c) 122  
 (d) 121 (e) 124
23. 3 : 27 :: 4 : ?  
 (a) 140 (b) 75 (c) 100  
 (d) 80 (e) 64
24.  $3 : 3\frac{3}{8} :: 5 : ?$   
 (a)  $5\frac{5}{8}$  (b)  $5\frac{3}{8}$  (c)  $5\frac{1}{8}$   
 (d)  $2\frac{5}{8}$  (e)  $6\frac{1}{8}$
25. Which of the following pairs of words have the same relationship as FAN : HEAT?  
 (a) Water : Drink (b) Light : Night  
 (c) Teach : Student (d) Air : Breathe  
 (e) Food : Hunger
26. A disease would always necessarily have  
 (a) Medicine (b) Bacteria (c) Cause  
 (d) Cure (e) Fever
27. 'Army' is related to 'Land' in the same way as 'Navy' is related to \_\_\_\_\_.  
 (a) Ships (b) Battle (c) Water  
 (d) Admiral (e) Defence
28. A 'Tumbler' is related to 'Empty' in the same way as a 'Seat' is related to  
 (a) Occupied (b) Person (c) Chair  
 (d) Sitting (e) Vacant
29. Secretly is to openly as silently is to \_\_\_\_  
 (a) scarcely (b) impolitely (c) noisily  
 (d) quietly (e) None of these
30. Spring is to as coil as ring is to \_\_\_\_  
 (a) rope (b) loop (c) cowl  
 (d) stretch (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e) <b>17.</b> (a) (b) (c) (d) (e) <b>18.</b> (a) (b) (c) (d) (e) <b>19.</b> (a) (b) (c) (d) (e) <b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e) <b>22.</b> (a) (b) (c) (d) (e) <b>23.</b> (a) (b) (c) (d) (e) <b>24.</b> (a) (b) (c) (d) (e) <b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e) <b>27.</b> (a) (b) (c) (d) (e) <b>28.</b> (a) (b) (c) (d) (e) <b>29.</b> (a) (b) (c) (d) (e) <b>30.</b> (a) (b) (c) (d) (e)



**101 SPEED TEST**

**35**

**CLASSIFICATION**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Four of the following five are alike in a certain way on the basis of their positions in English alphabet and so form a group. Which is the one that does not belong to that group.  
(a) HJG (b) PQN (c) DEB  
(d) TUR (e) KLI
2. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group ?  
(a) Rose (b) Jasmine (c) Hibiscus  
(d) Marigold (e) Lotus
3. Four of the following five pairs of alphas and numerals have same relationship between their elements as in the case of the pair PROBLEM : 2948375 and hence form a group. Which one does not belong to the group?  
(a) BORE : 8497 (b) MOEP : 5972  
(c) LBOR : 3849 (d) OMEP : 4572  
(e) EROL : 7943
4. Four of the following five pairs are alike in a certain way and hence form a group. Which one does not belong to that group?  
(a) DONE : NOED (b) WANT : NATW  
(c) WITH : TIHW (d) JUST : SUTJ  
(e) HAVE : AVEH
5. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) Hill (b) Valley (c) Dam  
(c) River (e) Mountain
6. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) 50 (b) 65 (c) 170  
(d) 255 (e) 290
7. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) 21 (b) 35 (c) 42  
(d) 56 (e) 49
8. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) Garlic (b) Ginger (c) Carrot  
(d) Radish (e) Brinjal
9. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) Clutch (b) Wheel (c) Break  
(d) Car (e) Gear
10. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) 196 (b) 256 (c) 529  
(d) 576 (e) 324
11. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) RPN (b) WSU (c) HDF  
(d) LHJ (e) QMO
12. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) 169 (b) 441 (c) 361  
(d) 529 (e) 289
13. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) PM (b) EB (c) TQ  
(d) IF (e) VY
14. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) 115 (b) 85 (c) 95  
(d) 75 (e) 155
15. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) 115 (b) 161 (c) 253  
(d) 391 (e) 345

**RESPONSE GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 1. (a) (b) (c) (d) (e)  | 2. (a) (b) (c) (d) (e)  | 3. (a) (b) (c) (d) (e)  | 4. (a) (b) (c) (d) (e)  | 5. (a) (b) (c) (d) (e)  |
| 6. (a) (b) (c) (d) (e)  | 7. (a) (b) (c) (d) (e)  | 8. (a) (b) (c) (d) (e)  | 9. (a) (b) (c) (d) (e)  | 10. (a) (b) (c) (d) (e) |
| 11. (a) (b) (c) (d) (e) | 12. (a) (b) (c) (d) (e) | 13. (a) (b) (c) (d) (e) | 14. (a) (b) (c) (d) (e) | 15. (a) (b) (c) (d) (e) |

16. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
 (a) OMQ                      (b) HFJ                      (c) TPR  
 (d) TRV                      (e) VTX
17. Four of the following five are alike in a certain way based on the English alphabetical series and so form a group. Which is the one that does not belong to that group?  
 (a) MLJ                      (b) WVT                      (c) OMK  
 (d) JIG                      (e) TSQ
18. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
 (a) Diabetes                      (b) Smallpox  
 (c) Conjunctivitis                      (d) Chickenpox  
 (e) Plague
19. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
 (a) Mustard                      (b) Jowar                      (c) Wheat  
 (d) Paddy                      (e) Bajra
20. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
 (a) 45                      (b) 35                      (c) 85  
 (d) 25                      (e) 75
21. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?  
 (a) Succeed                      (b) Victory                      (c) Triumph  
 (d) Compete                      (e) Win
22. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?  
 (a) Fair                      (b) Impartial                      (c) Indifferent  
 (d) Unbiased                      (e) Just
23. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?  
 (a) KP                      (b) BY                      (c) DW  
 (d) HU                      (e) GT
24. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?  
 (a) JLNK                      (b) TVXU                      (c) ACEB  
 (d) PRTQ                      (e) GJKH
25. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?  
 (a) GIJF                      (b) OQRN                      (c) KMNL  
 (d) UWXT                      (e) CEFB
26. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to the group?  
 (a) Break                      (b) Change                      (c) Split  
 (d) Divide                      (e) Separate
27. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to the group?  
 (a) Train                      (b) Instruct                      (c) Educate  
 (d) Advocate                      (e) Coach
28. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to the group?  
 (a) Extend                      (b) Higher                      (c) Upward  
 (d) Rise                      (e) Ascend
29. Four of the following five are alike in a certain way and so form a group. Which is the one that **does not** belong to that group?  
 (a) Volume                      (b) Size                      (c) Large  
 (d) Shape                      (e) Weight
30. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
 (a) Anxiety                      (b) Worry                      (c) Inhibition  
 (d) Curiosity                      (e) Weariness

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)





**101 SPEED TEST**

**36**

**SERIES - I**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

**DIRECTIONS (Q. 1 - 12) :** What should come in place of question mark (?) in the following number series?

1. 1050 420 168 67.2 26.88 10.752 ?  
(a) 4.3008 (b) 6.5038 (c) 4.4015  
(d) 5.6002 (e) None of these
2. 0 6 24 60 120 210 ?  
(a) 343 (b) 280 (c) 335  
(d) 295 (e) None of these
3. 15 19 83 119 631 (?)  
(a) 731 (b) 693 (c) 712  
(d) 683 (e) None of these
4. 19 26 40 68 124 (?)  
(a) 246 (b) 238 (c) 236  
(d) 256 (e) None of these
5. 11 10 18 51 200 (?)  
(a) 885 (b) 1025 (c) 865  
(d) 995 (e) None of these
6. 14 24 43 71 108 (?)  
(a) 194 (b) 154 (c) 145  
(d) 155 (e) None of these
7. 144 173 140 169 136 (?)  
(a) 157 (b) 148 (c) 164  
(d) 132 (e) None of these
8. 656 352 200 124 86 (?)  
(a) 67 (b) 59 (c) 62  
(d) 57 (e) None of these

9. 12 18 36 102 360 (?)  
(a) 1364 (b) 1386 (c) 1384  
(d) 1376 (e) None of these
10. 71 78 99 134 183 (?)  
(a) 253 (b) 239 (c) 246  
(d) 253 (e) None of these
11. 342 337.5 328.5 315 297 (?)  
(a) 265.5 (b) 274.5 (c) 270  
(d) 260 (e) None of these
12. 161 164 179 242 497 (?)  
(a) 1540 (b) 1480 (c) 1520  
(d) 1440 (e) None of these

**DIRECTIONS (Q. 13 - 21) :** In each of these questions, a number series is given. In each series, only one number is wrong number. Find out the wrong number.

13. 3601 3602 1803 604 154 36 12  
(a) 3602 (b) 1803 (c) 604  
(d) 154 (e) 36
14. 4 12 42 196 1005 6066 42511  
(a) 12 (b) 42 (c) 1005  
(d) 196 (e) 6066
15. 32 16 24 65 210 945 5197.5  
(a) 945 (b) 16 (c) 24  
(d) 210 (e) 65

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. 7 12 40 222 1742 17390 208608  
 (a) 7 (b) 12 (c) 40  
 (d) 1742 (e) 208608
17. 6 91 584 2935 11756 35277 70558  
 (a) 91 (b) 70558 (c) 584  
 (d) 2935 (e) 35277
18. 9050 5675 3478 2147 1418 1077 950  
 (a) 3478 (b) 1418 (c) 5675  
 (d) 2147 (e) 1077
19. 8424 4212 2106 1051 526.5 263.25 131.625  
 (a) 131.625 (b) 1051 (c) 4212  
 (d) 8424 (e) 263.25
20. 850 600 550 500 475 462.5 456.25  
 (a) 600 (b) 550 (c) 500  
 (d) 4625 (e) None of these
21. 8 12 24 46 72 108 216  
 (a) 12 (b) 24 (c) 46  
 (d) 72 (e) None of these

**DIRECTIONS (Q. 22 - 27) :** What should come in place of question mark (?) in the following number series?

22. 980 484 260 112 50 ? 3.5  
 (a) 25 (b) 17 (c) 21  
 (d) 29 (e) None of these
23. 1015 508 255 129 66.5 ? 20.875  
 (a) 34.50 (b) 35 (c) 35.30  
 (d) 35.75 (e) None of these

24. 354 180 64 21 10.2 ?  
 (a) 5.6 (b) 8.7 (c) 3.8  
 (d) 1.7 (e) None of these
25. 4.5 18 2.25 ? 1.6875 33.75  
 (a) 27 (b) 25.5 (c) 36  
 (d) 40 (e) None of these
26. 59.76 58.66 56.46 52.06 ? 25.66  
 (a) 48.08 (b) 46.53 (c) 43.46  
 (d) 43.26 (e) None of these
27. 36 157 301 470 ? 891  
 (a) 646 (b) 695 (c) 639  
 (d) 669 (e) None of these

**DIRECTIONS (Qs. 28 to 30) :** Which one of the letters when sequentially placed at the gaps in the given letter series shall complete it?

28. a b - b c b c a - - c - b a b  
 (a) a b c c (b) a c b c (c) b a a a  
 (d) c c a a (e) None of these
29. a b - c b b - a - c c a - b a  
 (a) c c a b (b) b b c a (c) a c b c  
 (d) a a c b (e) None of these
30. a - c a c b c - b a c a - - b  
 (a) c a c b (b) b a b c (c) a b a c  
 (d) b a b a (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)



**101 SPEED TEST**

**37**

**SERIES - II**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

**DIRECTIONS (Qs. 1 to 5):** In each of these questions, a number series is given. In each series, only one number is wrong. Find out the wrong number.

1. 3601 3602 1803 604 154 36 12  
(a) 3602 (b) 1803 (c) 604  
(d) 154 (e) 36
2. 4 12 42 196 1005 6066 42511  
(a) 12 (b) 42 (c) 1005  
(d) 196 (e) 6066
3. 2 8 12 20 30 42 56  
(a) 8 (b) 42 (c) 30  
(d) 20 (e) 12
4. 32 16 24 65 210 945 5197.5  
(a) 945 (b) 16 (c) 24  
(d) 210 (e) 65
5. 7 13 25 49 97 194 385  
(a) 13 (b) 49 (c) 97  
(d) 194 (e) 25

**DIRECTIONS (Qs. 6 to 10):** In each of these questions a number series is given. Below the series one number is given followed by (1), (2), (3), (4) and (5). You have to complete this series following the same logic as in the original series and answer the question that follow.

6. 5 9 25 91 414 2282.5  
3 (1) (2) (3) (4) (5)  
What will come in place of (3)?  
(a) 63.25 (b) 63.75 (c) 64.25  
(d) 64.75 (e) None of these
7. 15 9 8 12 36 170  
19 (1) (2) (3) (4) (5)  
What will come in place of (2)?  
(a) 18 (b) 16 (c) 22  
(d) 24 (e) None of these

8. 7 6 10 27 104 515  
9 (1) (2) (3) (4) (5)  
What will come in place of (4)?  
(a) 152 (b) 156 (c) 108  
(d) 112 (e) None of these
9. 6 16 57 244 1245 7506  
4 (1) (2) (3) (4) (5)  
What will come in place of (4)?  
(a) 985 (b) 980 (c) 1004  
(d) 1015 (e) None of these
10. 8 9 20 63 256 1285  
5 (1) (2) (3) (4)(5)  
What will come in place of (5)?  
(a) 945 (b) 895 (c) 925  
(d) 845 (e) None of these

**DIRECTIONS (Qs. 11 to 15):** What will come in place of question mark (?) in the following number series?

11. 12, 30, 56, 90, 132, ?  
(a) 178 (b) 182 (c) 185  
(d) 189 (e) 196
12. 91, 381, 871, 1561, 2451, ?  
(a) 3541 (b) 3621 (c) 3681  
(d) 3716 (e) 3772
13. 110, 440, 990, 1760, 2750, ?  
(a) 3680 (b) 3610 (c) 37820  
(d) 3840 (e) 3960
14. 5, 6, 11, 20, 33, 50, ?  
(a) 64 (b) 71 (c) 78  
(d) 81 (e) 84
15. 2, 7, 24, 77, 238, 723, ?  
(a) 1948 (b) 1984 (c) 2010  
(d) 2096 (e) 2180

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

**DIRECTIONS (Qs. 16 to 20):** Which is the next number in the following number series?

16. 780, 681, 592, 513, 444, 385, ?  
 (a) 320 (b) 324 (c) 332  
 (d) 336 (e) 340
17. 6, 17, 55, 196, 825, ?  
 (a) 4176 (b) 4212 (c) 4232  
 (d) 4256 (e) 4281
18. 72, 193, 293, 374, 438, 487, ?  
 (a) 521 (b) 523 (c) 525  
 (d) 527 (e) 529
19. 4, 45, 368, 2583, 15504, ?  
 (a) 77521 (b) 77522 (c) 77523  
 (d) 77524 (e) 77525
20. 180, 271, 352, 423, 484, 535, ?  
 (a) 576 (b) 577 (c) 578  
 (d) 579 (e) 580

**DIRECTIONS (Qs. 21 to 25):** Which one of the letters when sequentially placed at the gaps in the given letter series shall complete it?

21. a - c a - b c - b c c - b c a  
 (a) b b a b (b) b a b a (c) a a b b  
 (d) b b a a (e) None of these
22. What will be the next term in ?  
 DCXW, FEVU, HGTS, .....  
 (a) LKPO (b) ABYZ (c) JIRQ  
 (d) LMRS (e) None of these
23. ZXVTR....  
 (a) O, K (b) N, M (c) K, S  
 (d) M, N (e) P, N
24. C, e, G, i, K....  
 (a) O, K (b) m, O (c) k, M  
 (d) M, k (e) O, p
25. m \_ l m \_ l \_ m m \_ l  
 (a) mllml (b) mlml (c) llmlm  
 (d) mmlml (e) llmll

**DIRECTIONS (Q. 26- 30):** In each of the following questions a number series is given. After series, below it, a number along with (1), (2), (3) (4) and (5) is given. You have to complete the series following the same sequence as that of the given series. Then answer the question that follows.

26. 8 6 9 23 87 429  
 6 (1) (2) (3) (4) (5)  
 What will come in place of (3) ?  
 (a) 21 (b) 11 (c) 19  
 (d) 17 (e) None of these
27. 2 3 10 29 172 885  
 1 (1) (2) (3) (4) (5)  
 What will come in place of (2) ?  
 (a) 11 (b) 7 (c) 9  
 (d) 8 (e) None of these
28. 5 7 10 36 136 690  
 2 (1) (2) (3) (4) (5)  
 What will come in place of (5) ?  
 (a) 310 (b) 330 (c) 110  
 (d) 64 (e) None of these
29. 8 9 13 11.5 18 14  
 12 (1) (2) (3) (4) (5)  
 What will come in place of (4) ?  
 (a) 13.5 (b) 19.5 (c) 22  
 (d) 18 (e) None of these
30. 8 4 6 15 52.5 236.25  
 12 (1) (2) (3) (4) (5)  
 What will come in place of (4) ?  
 (a) 36.25 (b) 33.25 (c) 26.75  
 (d) 32.75 (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)



**101 SPEED TEST**

**38**

**CODING & DECODING**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

- In a certain code ENGLISH is written as FMHKJRI. How is OCTOBER written in that code?  
(a) PBUNCDS (b) PBUCNSD (c) BPUNCSD  
(d) PBUCNDS (e) None of these
- If a 'truck' is called 'train', 'train' is called 'tractor', 'tractor' is called 'ship', 'ship' is called 'aeroplane', 'aeroplane' is called 'bulldozer' and bulldozer' is called 'scooter' which of the following can fly?  
(a) Ship (b) Aeroplane (c) Bulldozer  
(d) Tractor (e) None of these
- In a certain code language 'te da ka ni' means 'intelligence is in genes', 'se po lo ni' means, 'genes are not responsible' and 'ba da fu te' means 'intelligence is through experience'. What does 'ka' stand for in that code language?  
(a) genes (b) through  
(c) intelligence (d) in  
(e) responsible
- JAQDKP  
(a) 85£%38 (b) \$5£%3\$ (c) \$5£%38  
(d) \$5£3%8 (e) None of these
- QDBGRM  
(a) £%\*617 (b) \$©\*6©7 (c) £%\*167  
(d) % £\*61© (e) None of these
- IKQLMS  
(a) 43£#74 (b) ©3£#7© (c) 4£3#74  
(d) 93£#74 (e) None of these
- In a certain code MODE is written as #8%6 and DEAF is written as %67\$. How is FOAM written in that code?  
(a) \$87# (b) \$#7% (c) #87%  
(d) \$87% (e) None of these
- If '+' means '-', '-' means '×', '×' means '÷' and '÷' means '+' then what is the value  $9 - 7 + 85 \times 17 \div 15 = ?$   
(a) 73 (b) 83 (c) 79  
(d) 68 (e) None of these
- If the alphabets are assigned values such as A = 3, D = 6, G = 8, I = 2, L = 4 and T = 5 then what is the sum of values of all the alphabets in the word DIGITAL?  
(a) 26 (b) 28 (c) 30  
(d) 32 (e) None of these
- In a certain code WEAK is written as 5%9\$ and WHEN is written as 5\*%7. How HANK written in that code?  
(a) \*9\$7 (b) 9\*\$7 (c) \$97\*  
(d) 9\*7\$ (e) None of these
- In a certain code BRIGHT is written as JSCSGF. How is JOINED written in that code?  
(a) HNIEFO (b) JPKEFO (c) JPKMDC  
(d) KPJCDM (e) None of these
- In a certain code BOARD is written as 51324 and SIDE is written as 9647. How is BASE written in that code?  
(a) 5397 (b) 5937 (c) 5697  
(d) 5297 (e) None of these
- If 'P' denotes '+', 'Q' denotes '-', 'R' denotes '×' and 'T' denotes '÷'; then  
 $24 T 16 Q 32 P 8 R 4 = ?$   
(a) 4 (b) 39 (c)  $\frac{1}{4}$   
(d) 40 (e) None of these

**DIRECTIONS (Q.4-Q.8) :** In each of these questions a group of letters is given followed by four combinations of number/symbol numbered (a), (b), (c) & (d). Letters are to be coded as per the scheme and conditions given below. You have to find out the serial number of the combination, which represents the letter group. Serial number of that combinations is your answer. If none of the combinations is correct, your answer is (e) i.e. 'None of these'.

Letters	D	K	M	B	I	N	P	R	J	A	L	S	E	Q	G
Number / Symbol Code	%	3	7	H	4	@	\$	1	8	5	#	9	2	£	6

**Conditions**

- If the first letter is a consonant and the last a vowel, both are to be coded as the code of the vowel.
  - If the first letter is a vowel and the last a consonant, the codes for the first and the last are to be interchanged.
  - If no vowel is present in the group of letters, the second and the fifth letters are to be coded as ©.
- KQAPJE  
(a) 3£5\$82 (b) 3£58\$2 (c) 2£5\$82  
(d) 2£5\$83 (e) None of these
  - EMANRB  
(a) \*75@12 (b) 275@1\* (c) ©75@2©  
(d) \*75@1\* (e) None of these

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. In a certain code ORGANISE is written as BHSPDRHM. How is DESTINED written in that code?  
 (a) SRDCCDMH (b) SRDCEFOJ  
 (c) UTFECDMH (d) UTFEEFMH  
 (d) None of these
17. In a certain code language JOURNEY is written as TNISZFO. How is BONDING written in that code language?  
 (a) ANMEHOJ (b) MNAEHOJ  
 (c) MNAEJOHJ (d) OPCEFMH  
 (e) None of these
22. OUBNYE  
 (a) β58152 (b) β#8152 (c) 2#815β  
 (d) 25815β (e) β581#2
23. In a certain code language 'TERMINAL' is written as 'NSFUMBOJ' and 'TOWERS' is written as 'XPUTSF'. How is 'MATE' written in that code?  
 (a) FUBN (b) UFNB (c) BNFU  
 (d) BNDS (e) None of these
24. In a certain code language, 'how can you go' is written as 'ja da ka pa', 'can you come here' is written as 'na ka sa ja' and 'come and go' is written as 'ra pa sa'. How is 'here' is written in that code language?  
 (a) ja (b) na (c) pa  
 (d) Data inadequate (e) None of these

**DIRECTIONS (Q.18-22) :** In each question below is given a group of letters followed by five combinations of number / symbol codes numbered 1), 2), 3), 4) and 5). You have to find out which of the combinations correctly represents the group of letters based on the following coding system and the conditions and mark the number of that combination as your answer. Two or more conditions may be applicable to a single combination.

**Letter :** P M A C X E D O U H B N Z Y G  
**Number / symbol Code:** 3 \$ 4 7 9 β 6 2 # © 8 1 % 5 ?

- Conditions :**
- (i) If both the first and last elements are vowels, the codes for the vowels are to be interchanged.
  - (ii) If the group of elements contains a single vowel, that vowel is to be coded as the code for the element following it.
  - (iii) If the second element is a vowel and the fifth element is a consonant, the vowel is to be coded as the code for the consonant.

18. PXUNCM  
 (a) \$9#173 (b) \$91173 (c) 39717\$  
 (d) 39117\$ (e) 39#17\$
19. DEHAZN  
 (a) 6β©441 (b) 6©%4%1 (c) 11©4%6  
 (d) 6β©4β7 (e) 6%©4%1
20. MHCYBG  
 (a) \$©758? (b) ?©758\$ (c) \$©?758  
 (d) 758\$©? (e) ?©57\$8
21. OMPCZA  
 (a) 2\$37%4 (b) 437\$%2 (c) 4\$37%2  
 (d) 2%37\$4 (e) 4\$3722
25. In a certain code THRIVES is written as SIUHRDU. How is SOULFUL written in that code?  
 (a) VPTKKTE (b) VPTKETK (c) TPVKKTE  
 (d) TNRKMVG (e) None of these
26. In a certain code language 'how many goals scored' is written as '5 3 9 7'; 'many more matches' is written as '9 8 2'; and 'he scored five' is written as '1 6 3'. How is 'goals' written in that code language?  
 (a) 5 (b) 7 (c) 5 or 7  
 (d) Data inadequate (e) None of these
27. In a certain code BUILDER is written as JVCKSFE. How is SEALING written in that code?  
 (a) BTFKHOJ (b) JOHKBFT (c) TFBKHOJ  
 (d) BFTKJOH (e) None of these
28. In a certain code BLACK is written as 'ALBKC' and SMART is written as 'AMSTR'. How is CLOCK written in that code?  
 (a) CLOKE (b) CLOCK (c) OLCKC  
 (d) OLCKC (e) None of these
29. In a certain code MAJORITY is written as 'PKBNXSHQ',. How is SANCTION written in that code?  
 (a) TBODMNHS (b) DOBTMNHS  
 (c) TBODSHNM (d) DOBTOPJU  
 (e) None of these
30. 'BE' is related to 'GJ' in the same way as 'PS' is related to  
 (a) UY (b) UX (c) UZ  
 (d) VY (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)



101 SPEED TEST

39

com

## DIRECTION &amp; DISTANCE

Max. Marks : 25

No. of Qs. 25

Time : 20 min.

Date : ...../...../.....

- Starting from Point X, Joy walked 15 metres towards West. He turned left and walked 20 metres. He again turned left and walked 15 metres. After which he turned right and walked for another 12 metres. How far is Joy from point X if he is facing North at present?  
(a) 27m (b) 35m (c) 32m  
(d) 42m (e) None of these
  - Town D is 12 km towards the North of town A. Town C is 15 km towards the West of town D. Town B is 15 km towards the West of town A. How far and in which direction is town B from town C?  
(a) 15 km towards North (b) 12 km towards North  
(c) 3 km towards South (d) 12 km towards South  
(e) cannot be determined
  - Rahul started from point A and travelled 8 km towards the North to point B, he then turned right and travelled 7 km to point C, from point C he took the first right and drove 5 km to point D, he took another right and travelled 7 km to point E and finally turned right and travelled for another 3 km to point F. What is the distance between point F and B?  
(a) 1 km (b) 2 km (c) 3 km  
(d) 4 km (e) None of these
  - Meghna drives 10 km towards South, takes a right turn and drives 6 km. She then takes another right turn, drives 10 km and stops. How far is she from the starting point?  
(a) 16 km (b) 6 km (c) 4 km  
(d) 12 km (e) None of these
  - Vikas walked 10 metres towards North, took a left turn and walked 15 metres, and again took a left turn and walked 10 metres and stopped walking. Towards which direction was he facing when he stopped walking?  
(a) South (b) South-West  
(c) South-East (d) Cannot be determined  
(e) None of these
- DIRECTIONS (Q. 6 & 7) :** Study the following information carefully to answer these questions.
- A vehicle starts from point P and runs 10 km towards North. It takes a right turn and runs 15 km. It now runs 6 km after taking a left turn. It finally takes a left turn, runs 15 km and stops at point Q.
- How far is point Q with respect to point P?  
(a) 16 km (b) 25 km (c) 4 km  
(d) 0 km (e) None of these
  - Towards which direction was the vehicle moving before it stopped at point Q?  
(a) North (b) East (c) South  
(d) West (e) North-East
  - Raman starts from point P and walks towards South and stops at point Q. He now takes a right turn followed by a left turn and stops at point R. He finally takes a left turn and stops at point S. If he walks 5 km before taking each turn, towards which direction will Raman have to walk from point S to reach point Q?  
(a) North (b) South (c) West  
(d) East (e) North-West
  - Town D is to the West of town M. Town R is to the South of town D. Town K is to the East of town R. Town K is towards which direction of town D?  
(a) South (b) East  
(c) North-East (d) South-East  
(e) None of these
  - Mohan walked 30 metres towards South, took a left turn and walked 15 metres. He then took a right turn and walked 20 metres. He again took a right turn and walked 15 metres. How far is he from the starting point?  
(a) 95 metres (b) 50 metres  
(c) 70 metres (d) Cannot be determined  
(e) None of these
  - W walked 40 metres towards West, took a left turn and walked 30 metres. He then took a right turn and walked 20 metres. He again took a right turn and walked 30 metres. How far was he from the starting point?  
(a) 70 metres (b) 60 metres  
(c) 90 metres (d) Cannot be determined  
(e) None of these
  - Town D is 13 km towards the East of town A. A bus starts from town A, travels 8 km towards West and takes a right turn. After taking the right turn, it travels 5 km and reaches town B. From town B the bus takes a right turn again, travels 21 km and stops. How far and towards which direction must the bus travel to reach town D?  
(a) 13 km towards South (b) 5 km towards West  
(c) 21 km towards South (d) 5 km towards South  
(e) None of these

**DIRECTIONS (Q. 13 & 14) :** Study the following information carefully to answer these questions.

Point P is 9 m towards the East of point Q. Point R is 5 m towards the South of point P. Point S is 3 m towards the West of point R. Point T is 5 m towards the North of point S. Point V is 7 m towards the South of point S.

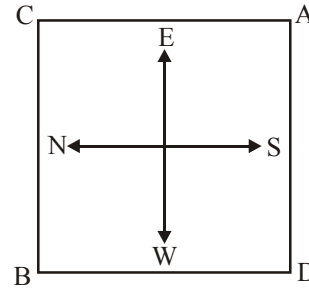
RESPONSE  
GRID

- |                     |                     |                    |                    |                     |
|---------------------|---------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) |                    |                    |                     |

13. If a person walks in a straight line for 8 m towards West from point R, which of the following points would he cross the first?  
 (a) V (b) Q (c) T  
 (d) S (e) Cannot be determined
14. Which of the following points are in a straight line?  
 (a) P, R, V (b) S, T, Q (c) P, T, V  
 (d) V, T, R (e) S, V, T
15. P, Q, R, S and T are sitting in a straight line facing North. P sits next to S but not to T. Q is sitting next to R who sits on the extreme left corner. Who sits to the left of S if T does not sit next to Q?  
 (a) P (b) Q (c) R  
 (d) T (e) Cannot be determined
16. A person travels 12 km due North, then 15 km due East, after that 15 km due West and then 18 km due South. How far is he from the starting point?  
 (a) 6 km (b) 12 km (c) 33 km  
 (d) 60 km (e) 65 km
17. In a meeting, the map of a village was placed in such a manner that south-east becomes north, north-east becomes west and so on. What will south become?  
 (a) North (b) North-east (c) North-west  
 (d) West (e) South
18. A school bus driver starts from the school, drives 2 km towards North, takes a left turn and drives for 5 km. He then takes a left turn and drives for 8 km before taking a left turn again and driving for further 5 km. The driver finally takes a left turn and drives 1 km before stopping. How far and towards which direction should the driver drive to reach the school again?  
 (a) 3 km towards North (b) 7 km towards East  
 (c) 6 km towards South (d) 6 km towards West  
 (e) 5 km towards North
19. The houses of A and B face each other on a road going north-south, A's being on the western side. A comes out of his house, turns left, travels 5 km, turns right, travels 5 km to the front of D's house. B does exactly the same and reaches the front of C's house. In this context, which one of the following statements is correct ?  
 (a) C and D live on the same street.  
 (b) C's house faces south.  
 (c) The houses of C and D are less than 20 km apart.  
 (d) C's houses faces west.  
 (e) None of the above
20. Roma walked 25 metre towards south, took a right turn and walked 15 metre. She then took a left turn and walked 25 meter. Which direction is she now from her starting point?  
 (a) South-east (b) South (c) South-west  
 (d) North-west (e) None of these
21. Anu starts from her home, walks 5 km towards South, takes a left turn and walks 3 km. She then takes a right turn and walks 2 km before taking a right turn again and walking 3 km. She then takes a left turn and walks 4 km before taking a left turn and walking 3 km before stopping.

- How far and in which direction is she now from her home?
- (a) 9 km towards South
  - (b)  $\sqrt{130}$  km towards South-East.
  - (c)  $\sqrt{130}$  km towards South-West.
  - (d) 11 km towards North-West.
  - (e) None of these

**DIRECTIONS (Qs. 22 - 25) :** These questions are based on the diagram given below showing four persons stationed at the four corners of a square piece of plot as shown.



22. A starts crossing the plot diagonally. After walking half the distance, he turns right, walks some distance and turns left. Which direction is A facing now?  
 (a) North-east (b) North (c) North-west  
 (d) South-east (e) None of these
23. From the original position given in the above figure, A and B move one arm length clockwise and then cross over to the corner diagonally opposite; C and D move one arm length anti-clockwise and cross over the corner diagonally opposite. The original configuration ADCB has now changed to :  
 (a) CBDA (b) DACB (c) BDAC  
 (d) ACBD (e) ADCB
24. From the original position, B and D move one and a half length of sides clockwise and anti-clockwise respectively. Which one of the following statements is true?  
 (a) B and D are both at the midpoint between A and C  
 (b) B is at the midpoint between A and C, and D is at the corner originally occupied by A.  
 (c) D is at the midpoint between A and C, and B is at the corner originally occupied by C.  
 (d) B and D are both at the midpoint between A and D.  
 (e) None of these
25. From the positions in the original figure, C and A move diagonally to opposite corners and then one side each clockwise and anti-clockwise respectively. B and D move two sides each clockwise and anti-clockwise respectively. Where is A now?  
 (a) At the north-west corner  
 (b) At the south-east corner  
 (c) At the north-east corner  
 (d) At the south-west corner  
 (e) None of these

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) | 16. (a)(b)(c)(d)(e) | 17. (a)(b)(c)(d)(e) |
| 18. (a)(b)(c)(d)(e) | 19. (a)(b)(c)(d)(e) | 20. (a)(b)(c)(d)(e) | 21. (a)(b)(c)(d)(e) | 22. (a)(b)(c)(d)(e) |
| 23. (a)(b)(c)(d)(e) | 24. (a)(b)(c)(d)(e) | 25. (a)(b)(c)(d)(e) |                     |                     |





## BLOOD RELATION

Max. Marks : 20

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

- Pointing to a boy, Urmila said, "He is the son of my grandfather's only daughter." How is Urmila related to the boy?
  - Mother
  - Maternal Aunt
  - Paternal Aunt
  - Data inadequate
  - None of these
- In  $F - R + H \div T$ , how is F related to T?
  - Son-in-law
  - Daughter-in-law
  - Son
  - Daughter
  - None of these
- In  $G \times T + Q \div M$ , how is M related to G?
  - Brother
  - Sister
  - Sister-in-law
  - Cannot be determined
  - None of these
- D is brother of B. M is brother of B. K is father of M. T is wife of K. How is B related to T?
  - Son
  - Daughter
  - Son or Daughter
  - Data inadequate
  - None of these

**DIRECTIONS (Q. 2 & 3) :** Study the following information carefully to answer the questions given below:

- 'P ÷ Q' means 'P is sister of Q'.
  - 'P × Q' means 'P is brother of Q'.
  - 'P - Q' means 'P is mother of Q'.
  - 'P + Q' means 'P is father of Q'.
- Which of the following means 'M is maternal uncle of T'?
    - $M \div K + T$
    - $M \times K + T$
    - $M \times K - T$
    - $M \div K - T$
    - None of these
  - Which of the following means 'H is paternal grandfather of T'?
    - $H + J + T$
    - $T \times K + H$
    - $H + J \times T$
    - $H - J + T$
    - None of these
  - Madhu said, 'My mother's only son Ashok has no son'. Which of the following can be concluded?
    - Ashok has only daughters.
    - Ashok is not married.
    - Ashok does not have a father.
    - Ashok has only one sister
    - None of these

**DIRECTIONS (Q. 5-8) :** These questions are based on the following information. Study it carefully and answer the questions.

- 'A × B' means 'A is father of B'.
  - 'A ÷ B' means 'A is daughter of B'.
  - 'A + B' means 'A is sister of B'.
  - 'A - B' means 'A is husband of B'.
- In  $F \div R \times H - L$ , how is H related to F?
    - Father
    - Brother
    - Sister
    - Cannot be determined
    - None of these
  - Which of the following indicates 'N is mother of K'?
    - $K + L \div N \times F$
    - $K + L \div N - M$
    - $H \times K \div N$
    - $N \times F + K$
    - None of these
- How is T related to S in the expression ' $T \times R + V \div S$ '?
    - Sister
    - Mother
    - Aunt
    - Uncle
    - None of these
  - How is T related to S in the expression ' $T \times R \div V - S$ '?
    - Father
    - Sister
    - Daughter
    - Aunt
    - None of these
  - How is S related to T in the expression ' $T + R - V + S$ '?
    - Uncle
    - Nephew
    - Son
    - Cannot be determined
    - None of these
  - Which of the following means that 'S is the husband of T'?
    - $T \times R - V + S$
    - $T - R \div V \times S$
    - $T - R + V \div S$
    - $T \div R \times V + S$
    - None of these
  - How is V related to T in the expression ' $T \div R + V \times S$ '?
    - Aunt
    - Nephew
    - Niece
    - Uncle
    - None of these
  - Pointing to a girl, Arun said, "She is the only daughter of my grandfather's son." How is the girl related to Arun?
    - Daughter
    - Sister
    - Cousin sister
    - Data inadequate
    - None of these

RESPONSE  
GRID

- |     |                 |     |                 |     |                 |     |                 |     |                 |
|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|
| 1.  | (a)(b)(c)(d)(e) | 2.  | (a)(b)(c)(d)(e) | 3.  | (a)(b)(c)(d)(e) | 4.  | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6.  | (a)(b)(c)(d)(e) | 7.  | (a)(b)(c)(d)(e) | 8.  | (a)(b)(c)(d)(e) | 9.  | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |
| 11. | (a)(b)(c)(d)(e) | 12. | (a)(b)(c)(d)(e) | 13. | (a)(b)(c)(d)(e) | 14. | (a)(b)(c)(d)(e) | 15. | (a)(b)(c)(d)(e) |

16. Pointing to a photograph, Rasika said "He is the grandson of my grandmother's only son". How is the boy in photograph related to Rasika?  
 (a) Son (b) Nephew  
 (c) Brother (d) Cannot be determined  
 (e) None of these

**DIRECTIONS (Q.17- 21) :** Read the following information carefully and answer the questions which follows :

'A × B' means 'A is brother of B'.  
 'A – B' means 'A is daughter of B'.  
 'A ÷ B' means 'A is wife of B'.  
 'A + B' means 'A is son of B'.

17. How is T related to P in the expression 'P + Q – R ÷ T'?  
 (a) Maternal grandmother  
 (b) Maternal grandfather  
 (c) Paternal grandmother  
 (d) Grandson  
 (e) None of these
18. Which of the following means 'P is sister of S'?  
 (a)  $P + Q \div R - S$  (b)  $P + Q \div R \times S$   
 (c)  $P \times Q - R \div S$  (d)  $P \div Q + R \times S$   
 (e) None of these
19. How is P related to S in the expression ' $S \times R + Q \div P$ '?  
 (a) Father (b) Grandson (c) Son  
 (d) Grandfather (e) None of these
20. How is R related to P in the expression ' $P + Q \times R - T$ '?  
 (a) Niece (b) Paternal Uncle  
 (c) Paternal Aunt (d) Either (b) or (c)  
 (e) None of these
21. How is S related to P in the expression ' $P - Q \div R \times S$ '?  
 (a) Nephew (b) Uncle (c) Aunt  
 (d) Either (b) or (c) (e) None of these
22. A, B, C, D, E, F and G are members of a family consisting of 4 adults and 3 children, two of whom, F and G are girls. A and D are brothers and A is a doctor. E is an engineer married to one of the brothers and has two children. B is married to D and G is their child. Who is C?  
 (a) G's brother (b) F's father (c) E's father  
 (d) A's son (e) None of these
23. Examine the following relationships among members of a family of six persons A, B, C, D, E and F.  
 1. The number of males equals that of females  
 2. A and E are sons of F.  
 3. D is the mother of two, one boy and one girl  
 4. B is the son of A  
 5. There is only one married couple in the family at present  
 Which one of the following inferences can be drawn from the above?  
 (a) A, B and C are all females  
 (b) A is the husband of D  
 (c) E and F are children of D  
 (d) D is the grand daughter of F  
 (e) None of these

24. There is a family of 6 persons A, B, C, D, E and F. There are two married couples in the family. The family members are lawyer, teacher, salesman, engineer, accountant and doctor. D, the salesman is married to the lady teacher. The doctor is married to the lawyer. F, the accountant is the son of B and brother of E. C, the lawyer is the daughter-in-law of A. E is the unmarried engineer. A is the grandmother of F. How is E related to F?  
 (a) Brother  
 (b) Sister  
 (c) Father  
 (d) Cannot be established (cannot be determined)  
 (e) None of these

**DIRECTIONS (Q.25- 30) :** Study the following information carefully to answer the given questions.

J, P, Q, R, S, T, U and V are 4 married couples sitting in a circle facing the centre. The profession of the males within the group are Lecturer, Lawyer, Doctor and Scientist. Among the males only R (the Lawyer) and V (the Scientist) are sitting together. Each man is seated besides his wife. U, the wife of the Lecturer is seated second to the right of V. T is seated between U and V. P is the wife of the Doctor. Q is not the Doctor. S is a male.

25. Which of the following is P's position with respect to S?  
 (a) Second to the right (b) Second to the left  
 (c) Immediate right (d) Immediate left  
 (e) Third to the left
26. Which of the following is J's position with respect to T?  
 (a) Third to the left (b) Fourth to the right  
 (c) Third to the right (d) Opposite T  
 (e) Second to the right
27. Which of the following is **not true** regarding the couples?  
 (a) P is the wife of S  
 (b) T is the wife of Q  
 (c) R is the husband of J  
 (d) J and S are seated adjacent to each other  
 (e) All are true
28. The wives of which two husbands are immediate neighbours?  
 (a) UT (b) SR (c) VQ  
 (d) RV (e) None of these
29. Four of the following are alike in a certain way based on their seating position in the above arrangement and so form a group. Which is the one that **does not** belong to the group?  
 (a) RSJ (b) TRV (c) VIV  
 (d) SGP (e) UPQ
30. Who is the Lawyer's wife?  
 (a) T (b) P  
 (c) J (d) U  
 (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)



101 SPEED TEST

41

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## TIME, SEQUENCE, NUMBER AND RANKING TEST

Max. Marks : 25

No. of Qs. 25

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1-5) :** Study the following arrangement carefully and answer the questions given below:

426138958165158539492321572624274

1. If all the even digits are deleted from the above arrangement, which of the following will be seventh from the right end of the arrangement?
  - (a) 3
  - (b) 5
  - (c) 1
  - (d) 9
  - (e) 7
2. How many such 2s are there in the above arrangement each of which is immediately preceded by an odd digit and also immediately followed by an odd digit?
  - (a) None
  - (b) One
  - (c) Two
  - (d) Three
  - (e) More than three
3. How many such 1s are there in the above arrangement, each of which is immediately preceded by a perfect square?
  - (a) None
  - (b) One
  - (c) Two
  - (d) Three
  - (e) More than three
4. If one is added to each of the even digits and two is added to each of the odd digits given in **BOLD** in the above arrangement, how many digits will appear twice in the new number thus formed?
  - (a) None
  - (b) One
  - (c) Two
  - (d) Three
  - (e) More than three
5. Which of the following is seventh to the right of the nineteenth digit from the right end of the above arrangement?
  - (a) 3
  - (b) 5
  - (c) 1
  - (d) 7
  - (e) None of these
6. Pratap correctly remembers that his mother's birthday is before twentythird April but after nineteenth April, whereas his sister correctly remembers that their mother's birthday is not on or after twentysecond April. On which day in April is definitely their mother's birthday?
  - (a) Twentieth
  - (b) Twentyfirst
  - (c) Twentieth or Twentyfirst
  - (d) Cannot be determined
  - (e) None of these
7. In a row of forty children, R is eleventh from the right end and there are fifteen children between R and M. What is M's position from the left end of the row?
  - (a) Fourteenth
  - (b) Fifteenth
  - (c) Thirteenth
  - (d) Cannot be determined
  - (e) None of these
8. In a row of forty boys facing North, R is twelfth from the left end and T is eighteenth from the right end. How many boys are between R and T in the row?
  - (a) 10
  - (b) 11
  - (c) 12
  - (d) Cannot be determined
  - (e) None of these
9. Mohit correctly remembers that his father's birthday is not after eighteenth of April. His sister correctly remembers that their father's birthday is before twentieth but after seventeenth of April. On which day in April was definitely their father's birthday?
  - (a) Seventeenth
  - (b) Nineteenth
  - (c) Eighteenth
  - (d) Seventeenth or Eighteenth
  - (e) None of these
10. If it is possible to form only one such number with the third, the sixth and the seventh digits of the number 7394261 which is the perfect square of a two-digit odd number, which of the following will be the first digit of that two-digit odd number?
  - (a) 9
  - (b) 3
  - (c) 5
  - (d) No such number can be formed
  - (e) More than one such number can be formed
11. In a row of twenty-five children facing North, W is fifth to the right of R, who is sixteenth from the right end of the row. What is W's position from the right end of the row?
  - (a) Eleventh
  - (b) Tenth
  - (c) Twelfth
  - (d) Data inadequate
  - (e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e)

12. Meena correctly remembers that her father's birthday is after eighteenth May but before twentysecond May. Her brother correctly remembers that their father's birthday is before twenty-fourth May but after twentieth May. On which date in May was definitely their father's birthday?  
 (a) Twentieth (b) Nineteenth  
 (c) Eighteenth (d) Cannot be determined  
 (e) None of these
13. Nitin correctly remembers that Nidhi's birthday is before Friday but after Tuesday. Derek correctly remembers that Nidhi's birthday is after Wednesday but before Saturday. On which of the following days does Nidhi's birthday definitely fall?  
 (a) Monday (b) Tuesday (c) Wednesday  
 (d) Thursday (e) Cannot be determined
14. Smita correctly remembers that last year Diwali was celebrated before November but after May. Sanjay correctly remembers that last year he had Diwali holidays after July. Mohan correctly remembers that the month in which Diwali was celebrated had only 30 days. In which month of the year was Diwali definitely celebrated?  
 (a) July (b) August (c) September  
 (d) October (e) November
15. Seema's watch is 6 minutes fast and the train, which should have arrived at 7 p.m. was 14 minutes late. What time is it by Seema's watch when the train arrived?  
 (a) 7 : 05 pm (b) 7 : 30 pm (c) 7 : 01 pm  
 (d) 7 : 31 pm (e) None of these
16. In a row of children facing North, Ritesh is twelfth from the left end. Sudhir who is twenty-second from the right end is fourth to the right of Ritesh. Total how many children are there in the row?  
 (a) 35 (b) 36 (c) 37  
 (d) 34 (e) None of these
17. In a class, among the passed students Neeta is 22nd from the top and Kalyan, who is 5 ranks below Neeta is 34th from the bottom. All the students from the class have appeared for the exam. If the ratio of the students who passed in the exam to those who failed is 4 : 1 in that class, how many students are there in the class?  
 (a) Data inadequate (b) 60 (c) 75  
 (d) 90 (e) None of these
18. Among A, B, C, D and E each reaching school at a different time, C reaches before D and A and only after B. E is not the last to reach school. Who among them reached school last?  
 (a) D (b) A (c) C  
 (d) Data inadequate (e) None of these
19. In a row of thirty-seven boys facing South, R is eighth. to the right of T who is fourteenth to the left of D. How many boys are there between D and R in the row?  
 (a) 4 (b) 6 (c) 8  
 (d) Data inadequate (e) None of these
20. If the digits on the dial of a clock are replaced by alternate English alphabet beginning with D such as D replaces 1, F replaces 2 and so on, then where will be the hour hand at 19.45 O'clock?  
 (a) Between O and Q (b) Between N and P  
 (c) Between P and R (d) Between M and O  
 (e) None of these
21. In a row of girls, Ravina is 15th from the left and Mohini is 18th from the right. If they inter-change their places, Mohini becomes 15th from the left. How many girls are there in the row?  
 (a) 33 (b) 48 (c) 47  
 (d) Data inadequate (e) None of these
22. In a row of 40 boys Sameer was shifted 10 places to the right of Raman and Kailash was shifted 10 places to the left of Vikas. If Vikas was 26th from the left end and there were three boys between Kailash and Sameer after shifting, what was the position of Raman in the row?  
 (a) Data inadequate  
 (b) 10th from the left end  
 (c) 10th from the right end  
 (d) 39th from the right end  
 (e) None of these
23. Pratap correctly remembers that his mother's birthday is before twenty-third April but after nineteenth April, whereas his sister correctly remembers that their mother's birthday is not on or after twenty-second April. On which day in April is definitely their mother's birthday?  
 (a) Twentieth  
 (b) Twenty-first  
 (c) Twentieth or Twenty-first  
 (d) Cannot be determined  
 (e) None of these

**Directions (Qs.24 & 25):** The following questions are based upon the alphabetical series given below:

T J E N U Q A K I O G R M S P B H F D L V C

24. If 'OD' is related to 'GF' and 'EB' is related to 'NP' in a certain way, to which of the following is 'AL' related to, following the same pattern ?  
 (a) KD (b) QV (c) KL  
 (d) KV (e) DQ
25. What will come in place of question mark (?) in the following series based on the above alphabetical series?  
 TE JU NK ? GH  
 (a) IS (b) IR (c) AG  
 (d) AR (e) AM

<b>RESPONSE GRID</b>	<b>12.</b> (a) (b) (c) (d) (e)	<b>13.</b> (a) (b) (c) (d) (e)	<b>14.</b> (a) (b) (c) (d) (e)	<b>15.</b> (a) (b) (c) (d) (e)	<b>16.</b> (a) (b) (c) (d) (e)
	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)	<b>21.</b> (a) (b) (c) (d) (e)
	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)	



**CUBES AND DICE**

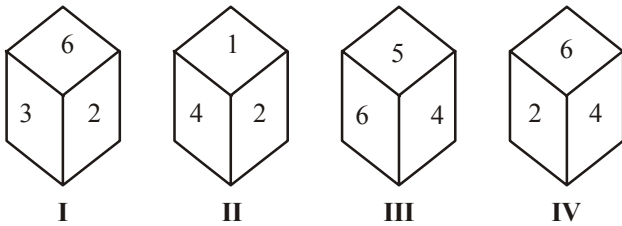
Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

1. Each of the six faces of a cube is numbered by one of the digits from 1 to 6. This cube is shown in its four different positions in the figure I, II, III, and IV.

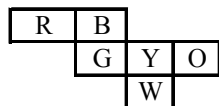


Consider the following statements.

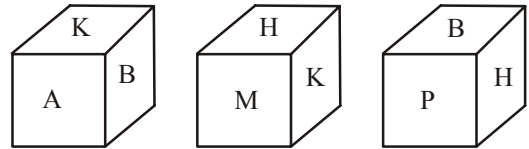
- Figures II and III are sufficient to know as to which face is opposite to the face numbered 6.
- Figures II and III are sufficient to know as to which face is opposite to the face numbered 4.
- Figures I and IV are sufficient to know as to which face is opposite to the face numbered 3.

Which of the statements given above are correct?

- 1 and 3 only
  - 1 and 2 only
  - 2 and 3 only
  - 1, 2 and 3
  - None of these
2. Six faces of a cube are numbered from 1 to 6, each face carrying one different number. Further,
- The face 2 is opposite to the face 6.
  - The face 1 is opposite to the face 5.
  - The face 3 is between the face 1 and the face 5
  - The face 4 is adjacent to the face 2.
- Which one of the following is correct?
- The face 2 is adjacent to the face 3
  - The face 6 is between the face 2 and the face 4
  - The face 1 is between the face 5 and the face 6
  - None of the above
  - None of these
3. Six squares are coloured, front and back, red (R), blue (B), yellow (Y), green (G), white (W) and orange (O) and are hinged together as shown in the figure given below. If they are folded to form a cube, what would be the face opposite the white face?



- R
  - O
  - None of these
4. Three views of a cube following a particular motion are given below:

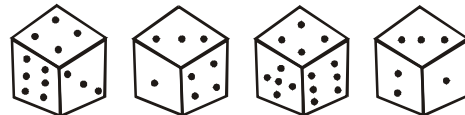


What is the letter opposite to A?

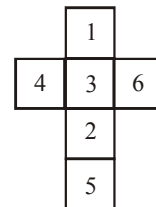
- H
- P
- B
- M
- None of these

**DIRECTIONS (Qs. 5-8) :** A cube is coloured red on all faces. It is cut into 64 smaller cubes of equal size. Now, answer the following questions based on this statement :

- How many cubes have no face coloured?
  - 24
  - 16
  - 8
  - 0
  - None of these
- How many cubes are there which have only one face coloured?
  - 4
  - 8
  - 16
  - 24
  - None of these
- How many cubes have two red opposite faces?
  - 0
  - 8
  - 16
  - 24
  - None of these
- How many cubes have three faces coloured?
  - 24
  - 16
  - 8
  - 4
  - None of these



9. How many dots are there on the dice opposite to the one dot?
- 2
  - 4
  - 5
  - 6
  - None of these
10. Select from alternative, the box that can be formed by folding the sheet shown.

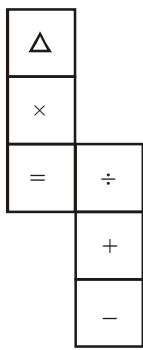


- Box with faces 2, 3, 5
- Box with faces 4, 6, 3
- Box with faces 3, 2, 5
- Box with faces 4, 1, 3
- None of these

**RESPONSE GRID**

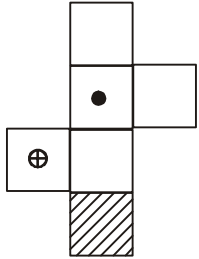
1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
 6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)

11. Select from alternative, the box that can be formed by folding the sheet shown.



- (a) (b) (c)
- (d) (e) None of these

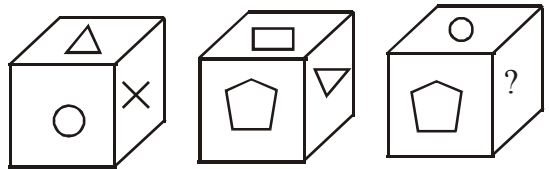
12. Select from the alternative, the box that can be formed by folding the sheet shown in figure (X) :



- (X)
- (A) (B) (C) (D)

- (a) A only (b) A and C only  
 (c) A, C and D only (d) A, B, C and D  
 (e) None of these

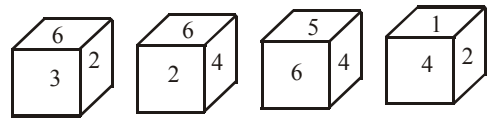
13. Three positions of a cube are as shown below :



The figure on the face opposite the triangle is the :

- (a) pentagon (b) circle  
 (c) question mark (d) rectangle  
 (e) None of these

14. Which number is on the face opposite to 6 on the dice whose four positions as shown below ?

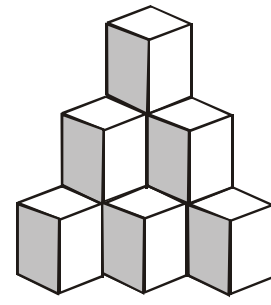


- (a) 1 (b) 2 (c) 3  
 (d) 4 (e) None of these

15. A cube is painted white on all the sides. It is then cut into 64 smaller cubes of equal sizes. How many of these smaller cubes have no paint on any side?

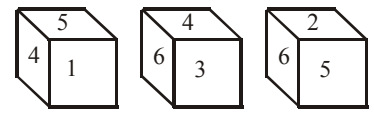
- (a) 8 (b) 6 (c) 4  
 (d) 1 (e) None of these

16. How many cubes are there in the following figure?



- (a) 6 (b) 10 (c) 12  
 (d) 8 (e) None of these

**DIRECTIONS (Qs. 17 - 19) : The questions below are to be answered on the basis of the three views of a cube given as follows :**

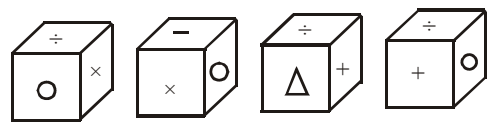


17. Which number is on the face opposite to 1 ?  
 (a) 3 (b) 2 (c) 6  
 (d) 4 (e) None of these

18. Which number is on the face opposite to 4 ?  
 (a) 2 (b) 3 (c) 6  
 (d) 1 (e) None of these

19. Which number is at the bottom face of figure 1?  
 (a) 3 (b) 2 (c) 6  
 (d) 1 (e) None of these

20. Four positions of a cube are shown below. Which symbol is opposite to the face having 'O'?



- (a) Δ (b) - (c) ×  
 (d) ÷ (e) None of these

<b>RESPONSE GRID</b>	<b>11.</b> (a)(b)(c)(d)(e)	<b>12.</b> (a)(b)(c)(d)(e)	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)
<b>RESPONSE GRID</b>	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)



**PROBLEM SOLVING - I**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1- 5) :** Read the following passage carefully and answer these questions given below it.

A group of seven friends A, B, C, D, E, F and G, work as Economist, Agriculture Officer, IT Officer, Terminal Operator, Clerk, Forex Officer and Research Analyst, for Banks L, M, N, P, Q, R and S, but not necessarily in the same order. C works for Bank N and is neither Research Analyst nor a Clerk. E is an IT Officer and works for Bank R. A works as Forex Officer and does not work for Bank L or Q. The one who is an Agricultural Officer works for Bank M. The one who works for Bank L works as a Terminal Operator. F works for Bank Q. G works for Bank P as a Research Analyst. D is not an Agricultural Officer.

1. Who amongst the following works as an Agriculture Officer?  
(a) C (b) B (c) F  
(d) D (e) None of these
2. What is the profession of C?  
(a) Terminal Operator (b) Agriculture Officer  
(c) Economist (d) Cannot be determined  
(e) None of these
3. For which bank does B work?  
(a) M (b) S (c) L  
(d) Either M or S (e) None of these
4. What is the profession of the person who works for Bank S?  
(a) Clerk (b) Agriculture Officer  
(c) Terminal Operator (d) Forex Officer  
(e) None of these
5. Which of the following combinations of person, profession and bank is correct?  
(a) A - Forex Officer - M  
(b) D - Clerk - L  
(c) F - Agriculture Officer - Q  
(d) B - Agriculture Officer - S  
(e) None of these

**DIRECTIONS (Q.6-10) :** Study the following information to answer the given questions.

Each of seven plays viz. P, Q, R, S, T, V and W are scheduled to be staged on a different day of a week starting from Monday and ending on Sunday of the same week. Play V is scheduled on Thursday. Two plays are scheduled to be held between Play V and Play P. Only one play is scheduled between Play T and Play S. Play T is not scheduled on the day immediately before or immediately after the day when Play V is scheduled. Play R is scheduled the day immediately before the day when Play W is scheduled. Play S is not scheduled after Play Q.

6. How many plays are scheduled to be staged between Play R and Play S?

- (a) None (b) One (c) Two  
(d) Three (e) Four
7. Which of the following plays is scheduled on Saturday?  
(a) Q (b) W (c) R  
(d) S (e) T
8. R is related to S in a certain way. In the same way P is related to V based on the given schedule. Which of the following is W related to the following the same pattern?  
(a) P (b) Q (c) R  
(d) T (e) Cannot be determined
9. On which of the following days is Play W scheduled?  
(a) Monday (b) Tuesday  
(c) Wednesday (d) Saturday  
(e) Cannot be determined
10. Which of the following plays is scheduled on Friday?  
(a) R (b) T (c) Q  
(d) W (e) S

**DIRECTIONS (Q.11-Q.15) :** Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V and W are seven friends working in a call centre. Each of them has different day offs in a week from Monday to Sunday not necessarily in the same order. They work in three different shifts I, II and III with at least two of them in each shift.

R works in shift II and his day off is not Sunday. P's day off is Tuesday and he does not work in the same shift with either Q or W. None of those who work in shift I has day off either on Wednesday or on Friday. V works with only T in shift III. S's day off is Sunday. V's day off is immediate next day of that of R's day off. T's day off is not on Wednesday. W's day off is not on the previous day of P's day off. S works in shift I. Q does not work in the same shift with R and his day off is not on Thursday.

11. Which of the following is W's day off?  
(a) Tuesday (b) Monday (c) Saturday  
(d) Data inadequate (e) None of these
12. Which of the following is R's day off?  
(a) Friday (b) Thursday (c) Tuesday  
(d) Wednesday (e) None of these
13. Which of the following groups of friends work in shift II?  
(a) RP (b) RV (c) QWS  
(d) Data inadequate (e) None of these
14. Which of the following is Q's day off?  
(a) Friday (b) Wednesday (c) Thursday  
(d) Monday (e) None of these
15. Which of the following groups of friends work in shift I?  
(a) RV (b) RP (c) QWS  
(d) Data inadequate (e) None of these

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

**DIRECTIONS (Q.16-20) :** Study the following information carefully and answer the questions given below:

- (i) A, B, C, D, E, F, G and H are eight students, each having a different height
  - (ii) D is shorter than A but taller than G.
  - (iii) E is taller than H but shorter than C.
  - (iv) B is shorter than D but taller than F.
  - (v) C is shorter than G.
  - (vi) G is not as tall as F.
16. Which of the following is definitely false?  
 (a) G is shorter than F (b) C is shorter than F  
 (c) F is taller than C. (d) B is taller than E.  
 (e) All are true
  17. If another student J, who is taller than E but shorter than G, is added to the group, which of the following will be definitely true?  
 (a) C and J are of the same height  
 (b) J is shorter than D.  
 (c) J is shorter than H.  
 (d) J is taller than A.  
 (e) None of these
  18. Which of the following will definitely be the third from top when the eight students are arranged in descending order of height?  
 (a) B (b) F (c) G  
 (d) B or G (e) Cannot be determined
  19. How many of them are definitely shorter than F?  
 (a) Three (b) Four (c) Five  
 (d) Data inadequate (e) None of these
  20. Which of the following is redundant to answer all the above questions?  
 (a) (ii) only  
 (b) (ii) and (iii) only  
 (c) (iii) and (iv) only  
 (d) (ii) and (v) only  
 (e) All are necessary to answer the above questions.

**DIRECTIONS (Q.21-Q.25) :** Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight employees of an organization working in three departments, viz Personnel, Administration and Marketing with not more than three of them in any department. Each of them has a different choice of sports from football, cricket, volleyball, badminton, lawn tennis, basketball, hockey and table tennis, not necessarily in the same order.  
 D works in Administration and does not like either football or cricket. F works in Personnel with only A, who likes table tennis. E and H do not work in the same department as D. C likes hockey and does not work in Marketing. G does not work in Administration and does not like either cricket or badminton. One of those who work in Administration likes football. The one who likes volleyball works in Personnel. None of those who work in Administration likes either badminton or lawn tennis. H does not like cricket.

21. Which of the following groups of employees work in Administration department?  
 (a) EGH (b) AF (c) BCD  
 (d) BGD (e) Data inadequate
22. In which department does E work?  
 (a) Personnel (b) Marketing  
 (c) Administration (d) Data inadequate  
 (e) None of these
23. Which of the following combinations of employees department-favourite sport is correct?  
 (a) E-Administration-Cricket  
 (b) F-Personnel-Lawn Tennis  
 (c) H-Marketing-Lawn Tennis  
 (d) B-Administration-Table Tennis  
 (e) None of these
24. What is E's favourite sport?  
 (a) Cricket (b) Badminton (c) Basketball  
 (d) Lawn Tennis (e) None of these
25. What is G's favourite sport?  
 (a) Cricket (b) Badminton (c) Basketball  
 (d) Lawn Tennis (e) None of these

**DIRECTIONS (Qs. 26-30):** Study the following information carefully and answer the given questions.

- P, Q, R, S, T, V and W are seven friends, all of a different height and fatness.
- (i) Q is the thinnest and tallest among them.
  - (ii) S is not as short as T, but shorter than R.
  - (iii) W is not as fat as R, but fatter than V.
  - (iv) R and T are taller than W but shorter than R
  - (v) V is fatter than T and the shorter among them.
  - (vi) R is third among them in fatness in descending order.
26. Who is the fattest among them?  
 (a) P (b) S  
 (c) Either P or S (d) Either T or S  
 (e) None of these
  27. Which of the given statements is not required to find out the thickest among them?  
 (a) (i) (b) (vi)  
 (c) (iii) and (iv) (d) (v)  
 (e) None of these
  28. If they are made to stand in ascending order of their heights, who will come in the middle?  
 (a) R (b) S (c) T  
 (d) Data inadequate (e) None of these
  29. If they are made to stand in ascending order of their fatness, who will be the second from the last?  
 (a) S (b) V (c) W  
 (d) Data inadequate (e) None of these
  30. Who obtained the same place in height and fatness among them when arranged in ascending order of their height and fatness?  
 (a) P (b) Q (c) R  
 (d) S (e) None of these

<b>RESPONSE GRID</b>	<b>16.</b> (a) (b) (c) (d) (e)	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)





101 SPEED TEST

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## PROBLEM SOLVING - II

Max. Marks : 25

No. of Qs. 25

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-5) :** Study the following information carefully and answer the questions given below:

- (i) A, B, C, D, E, F and G are seven persons wearing a different colour shirt - white, red, black, green, yellow, blue and violet and a different colour trousers - blue, red, white, black, cream, yellow and indigo. The persons, colour of the shirt and colour of the trousers above are not necessarily in the same order. No person is wearing shirt and trousers of same colour.
- (ii) B is wearing red colour shirt and is not wearing cream or yellow colour trousers. D is wearing green colour shirt and indigo colour trousers. Colour of A's shirt and F's trousers is same. Colour of E's shirt and C's trouser is same. G is wearing blue shirt and E is wearing blue trousers. F is not wearing any yellow dress. Red and blue is not the combination of shirt and trousers of any of the persons.
- What is the colour of A's trousers?  
(a) White (b) Cream (c) Blue  
(d) Data inadequate (e) None of these
  - What is the colour of G's trousers?  
(a) Red (b) Cream (c) White  
(d) Indigo (e) None of these
  - Who wears violet colour shirt?  
(a) C (b) F (c) C or F  
(d) Data inadequate (e) None of these
  - What is the colour of F's shirt?  
(a) Blue (b) Violet (c) Green  
(d) Data inadequate (e) None of these
  - What is the colour of B's trousers?  
(a) Red (b) White (c) Indigo  
(d) Data inadequate (e) None of these

**DIRECTIONS (Q.6-10) :** Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V and W are seven members of a family. Each one of them has a different profession-Doctor, Teacher, Lawyer, Engineer, Architect, Chartered Accountant and Banker and their incomes are different. There are two married couples in the group. R is the

Doctor and earns more than the Engineer and the lawyer. T is married to the Chartered Accountant and she earns the least. No lady is either lawyer or Engineer. Q, the Teacher, earns less than P — the Banker. W is married to Q and he earns more than S and P. V is not the Lawyer. The Chartered Accountant earns less than Lawyer but more than the Banker.

- Who earns the maximum in the family?  
(a) V (b) W (c) R  
(d) S (e) None of these
- Which of the following is a pair of married couple?  
(a) RT (b) VT (c) QT  
(d) ST (e) None of these
- What is P's position from the top when they are arranged in descending order of their income?  
(a) Second (b) Fourth (c) Third  
(d) Sixth (e) None of these
- What is the profession of V?  
(a) Engineer  
(b) Chartered Accountant  
(c) Engineer or Chartered Accountant  
(d) Data inadequate  
(e) None of these
- At least how many male members are there in the family?  
(a) Two (b) Three (c) Four  
(d) Five (e) None of these

**DIRECTIONS (Q.11-15) :** Study the following information carefully to answer these questions.

A group of people has six family members and an advocate. These are L, M, N, O, P, Q and R and having different professions. Each one of them is a journalist, businessman, architect, doctor and pilot but not necessarily in this order. These are three males and three females in the family out of which there are two married couples. M is a businessman and is the father of P. Q is a doctor and grandfather of P. N is a housewife and is daughter-in-law of O. L is neither a pilot nor a journalist. R is an advocate. N is not the mother of P and O is not married to M. No lady is a journalist.

**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)

11. Which of the following groups represents the three ladies in the group?  
 (a) N, P, L                      (b) P, L, N                      (c) L, N, O  
 (d) O, P, L                      (e) None of these
12. Who is married to Q?  
 (a) N                                  (b) O  
 (c) L                                  (d) Can't be determined  
 (e) None of these
13. Who among the following family members is an architect?  
 (a) L                                  (b) O  
 (c) P                                  (d) Cannot be determined  
 (e) None of these
14. Which of the following is the profession of P?  
 (a) Architect                      (b) Pilot  
 (c) Architect or pilot              (d) Journalist  
 (e) None of these
15. How is Q related to O?  
 (a) Father                              (b) Mother  
 (c) Mother-in-law                  (d) Son-in-law  
 (e) None of these

**DIRECTIONS (Q.16-20) :** Study the following information carefully and answer the questions given below:

A, M, P, J, H, D and K are seven students of a school. They study in Standard III, IV and V with atleast two in any one standard. Each of them has different choice of colour from - blue, red, green, yellow, black, white and brown, not necessarily in the same order. M studies in Standard IV with only D who likes red colour. A studies in Standard V and does not like either blue or green. He does not study in Standard V and likes yellow colour. P and J study in the same Standard but not with A. None of these who study in Standard III likes white. The one who likes black studies in Standard IV. J likes brown colour. P does not like blue colour.

16. Which colour does P like?  
 (a) Green                              (b) Blue  
 (c) Blue or Green                  (d) Data inadequate  
 (e) None of these
17. Which of the following combinations is definitely correct?  
 (a) III - H - Black                  (b) IV - K - Blue  
 (c) V - A - Blue                      (d) IV - D - Green  
 (e) All are incorrect

18. Which colour does A like?  
 (a) Brown                              (b) Red                              (c) White  
 (d) Data inadequate                  (e) None of these
19. Which colour does K like?  
 (a) Green                              (b) Blue  
 (c) Blue or Green                  (d) Data inadequate  
 (e) None of these
20. In which Standard do three of them study?  
 (a) Only III                              (b) Only V  
 (c) Only III or V                      (d) Data inadequate  
 (e) None of these

**DIRECTIONS (Q.21-25) :** Study the following information to answer the given questions.

Six lectures are scheduled in a week starting from Monday and ending on Sunday of the same week. Computer Science is not on Tuesday or Saturday. Psychology is immediately after Organizational Behaviour. Statistics is not on Friday and there is one day gap between Statistics and Research Methods. One day prior to the schedule of Economics there is no lecture. (as that day is the 'off' day and Monday is not the off day.)

21. Which of the following is the last lecture scheduled?  
 (a) Statistics                              (b) Research Methods  
 (c) Psychology                          (d) Cannot be determined  
 (e) None of these
22. If Wednesday is the 'off' day, the code would be 2-4, if Thursday was the 'off' day, the code would be 3-3. Taking into account the 'off' day' which of the following code is correct?  
 (a) 2-4                                      (b) 3-3  
 (c) 4-2                                      (d) Cannot be determined  
 (e) None of these
23. Which lecture is scheduled on Friday?  
 (a) Economics                              (b) Psychology  
 (c) Computer Science                  (d) Cannot be determined  
 (e) None of these
24. How many lectures were scheduled between Economics and Psychology?  
 (a) One                                      (b) Two  
 (c) Three                                      (d) Cannot be determined  
 (e) None of these
25. Which day is Computer Science scheduled?  
 (a) Monday                                  (b) Wednesday  
 (c) Thursday                                  (d) Cannot be determined  
 (e) None of these

<b>RESPONSE GRID</b>	<b>11.</b> (a)(b)(c)(d)(e) <b>12.</b> (a)(b)(c)(d)(e) <b>13.</b> (a)(b)(c)(d)(e) <b>14.</b> (a)(b)(c)(d)(e) <b>15.</b> (a)(b)(c)(d)(e) <b>16.</b> (a)(b)(c)(d)(e) <b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e) <b>21.</b> (a)(b)(c)(d)(e) <b>22.</b> (a)(b)(c)(d)(e) <b>23.</b> (a)(b)(c)(d)(e) <b>24.</b> (a)(b)(c)(d)(e) <b>25.</b> (a)(b)(c)(d)(e)
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## ANALYTICAL DECISION MAKING

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-5) :** Study the following information carefully and answer the questions given below:

Following are the conditions for selecting Senior Manager-Credit in a bank. The candidate must

- (i) be a graduate in any discipline with at least 60 percent marks.
- (ii) have post-qualification work experience of at least ten years in the Advances Section of a bank.
- (iii) be at least 30 years and not more than 40 years as on 1.4.2010.
- (iv) have secured at least 40 percent marks in the Group Discussion.
- (v) have secured at least 50 percent marks in the Interview.

In the case of a candidate who satisfies all the conditions:

**EXCEPT**

- (A) at (i) above, but has secured at least 50 percent marks in graduation and at least 60 percent marks in post-graduation in any discipline, the case is to be referred to the General Manager-Advances.
- (B) at (ii) above, but has total post-qualification work experience of at least seven years, out of which at least three years as Manager-Credit in a bank, the case is to be referred to the Executive Director.

In each question below details of one candidate are given. You have to take one of the following courses of action based on the information provided and the conditions and subconditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01-04-2010.

**Give answer (a)** if the case is to be referred to the Executive Director.

**Give answer (b)** if the case is to be referred to the General Manager -Advances

**Give answer (c)** if the data are inadequate to take a decision.

**Give answer (d)** if the candidate is not to be selected.

**Give answer (e)** if the candidate is to be selected.

1. Shobha Gupta has secured 50 percent marks in the Interview and 40 percent marks in the Group Discussion. She has been working for the past eight years, out of which four years as Manager-Credit in a bank, after completing her BA degree with 60 percent marks. She was born on 12th September 1978.
2. Rohan Maskare was born on 8th March 1974. He has been working in a bank for the past twelve years after completing his B Com degree with 70 percent marks. He has secured 50 percent marks in both the Group Discussion and the Interview.

3. Prakash Gokhale was born on 4th August 1977. He has secured 65 percent marks in postgraduation and 58 percent marks in graduation. He has been working for the past ten years in the Advances Department of a bank after completing his postgraduation. He has secured 45 percent marks in the Group Discussion and 50 percent marks in the Interview.
4. Sudha Mehrotra has been working in the Advances Department of a bank for the past twelve years after completing her B Com Degree with 60 percent marks. She has secured 50 percent marks in the Group Discussion and 40 percent marks in the Interview. She was born on 15th February 1972.
5. Amit Narayan was born on 28th May 1974. He has been working in the Advances department of a bank for the past eleven years after completing his B Sc Degree with 65 percent marks. He has secured 55 percent marks in the Group discussion and 50 percent marks in the Interview.

**DIRECTIONS (Q.6-Q.10) :** Study the following information carefully and answer the questions given below:

Following are the conditions for selecting System Manager in an organization: The candidate must

- (i) be a graduate engineer in IT, Computer Science or Electronics with at least 60 percent marks.
- (ii) be at least 30 years and not more than 40 years as on 1.9.2009.
- (iii) have secured at least 40 percent marks in the written examination
- (iv) have secured at least 50 percent marks in the selection interview.
- (v) have post-qualification work experience of at least 10 years in the systems department of an organisation.

In the case of a candidate who satisfies all the conditions:

**EXCEPT**

- (A) at (i) above, but has secured at least 60 percent marks in ME-IT or Computer Science, the case is to be referred to DGM-Systems.
- (B) at (v) above, but has post-qualification experience of at least five years as Deputy Systems Manager, the case is to be referred to the GM-Systems.

In each question below, details of one candidate are given. You have to take one of the following courses of action based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided for each candidate. All these cases are given to you as on 1-9-2009.

RESPONSE  
GRID

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)

**Give answer (a)** if the candidate is to be selected

**Give answer (b)** if the candidate is not to be selected

**Give answer (c)** if the case is to be referred to DGM-Systems.

**Give answer (d)** if the case is to be referred to GM-Systems.

**Give answer (e)** if the data provided are not adequate to take a decision.

6. Samir Ghosh was born on 25th May 1978. He secured 65 percent marks in BE-IT in the year 1999. Since then, he has been working in the systems department of an organisation. He has secured 50 percent marks in both written examination and selection interview.
7. Navin Prakash has secured 62 percent marks in BE-Computer Science. He has been working in the systems department of an organisation since July 1999 after completion of BE. He was born on 4th April 1974. He has secured 55 percent marks in selection interview and 45 percent marks in the written examination.
8. Neeta Pathak has been working as Deputy Systems Manager in an organisation for the past seven years after completing her BE in IT with 70 percent marks. She has secured 45 percent marks in selection interview and 55 percent marks in the written examination. She was born on 12th November 1978.
9. Ashok Malhotra was born on 19th March 1977. He has secured 56 percent marks in both selection interview and written examination. He has secured 58 percent marks in BE-IT and 72 percent marks in ME-IT. He has been working in the system department of an organisation for the past 11 years after completing ME-IT.
10. Gemma D' Souza was born on 15th December 1972. She has secured 60 percent marks in both written examination and selection interview. She has been working as Deputy System Manager for the last 6 years in an organisation after completing her BE-Electronics with 75 percent marks.

**DIRECTIONS (Q.11-20) :** Study the following information carefully and answer the questions given below:

Following are the conditions for selecting Assistant General Manager - HR in an organization.

The candidate must

- (i) be at least 40 years and not more than 50 years old as on 1.5.2010.
- (ii) be postgraduate in Personnel Management/HR with at least 60 percent marks.
- (iii) have post-qualification work experience of at least fifteen years out of which at least five years as Senior Manager-HR in an organisation.
- (iv) have successfully implemented HR-System in his/her organisation some time during the past three years.
- (v) have secured at least 45 percent marks in the selection process.

In the case of a candidate who satisfies all the conditions:

**EXCEPT**

- (A) at (ii) above, but has secured at least 50 percent marks in postgraduation and at least 65 percent marks in the selection process, the case is to be referred to Executive Director.
- (B) at (iii) above but has at least twelve years post-qualification work experience out of which at least eight years as Senior Manager-HR in an organisation, the case is to be referred to Chairman.

In each question below details of one candidate are given. You have to take one of the courses of action based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01-05-2010.

**Give answer (a)** if the candidate is to be selected

**Give answer (b)** if the candidate is not to be selected

**Give answer (c)** if the data provided are not adequate to take a decision.

**Give answer (d)** if the case is to be referred to Executive Director.

**Give answer (e)** if the case is to be referred to Chairman

11. Pranab Ghosh was born on 8th March 1968. He has been working for the past eighteen years in an organisation out of which last seven years as Senior Manager-HR after completing his postgraduation in HR with 68 percent marks. He had successfully implemented HR-System last year in his organisation. He has secured 50 percent marks in the selection process.
12. Sheetal Jha has been working in an organisation for the past twenty years out of which ten years as Senior Manager-HR after completing her postgraduation in Personnel Management with 70 percent marks. She was born on 2nd December 1965. She has secured 45 percent marks in the selection process.
13. Prabir Sengupta was born on 8th May 1963. He has secured 65 percent marks in the selection process. He has been working for the past fifteen years in an organisation, out of which twelve years as Senior Manager-HR, after completing his postgraduation in HR with 55 percent marks. He has successfully implemented HR-System in his organisation during the last two years.
14. Shailesh Kumar has been working in an organisation for the past thirteen years, out of which nine years as Senior Manager-HR after completing his postgraduation in HR with 68 percent marks. He was born on 15th September 1968. He has secured 48 percent marks in the selection process. He has successfully implemented HR-System in his organisation two years back.

**RESPONSE  
GRID**

6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e)

15. Navin Chopra was born on 12th June 1967. He has been working for the past sixteen years, out of which seven years as Senior Manager-HR, after completing his postgraduation in Personnel Management with 75 percent marks. He has secured 44 percent marks in the selection process. He has successfully implemented HR-System in his organisation last year.
16. Meera Kulkarni has been working for the past seventeen years, out of which eight years as Senior Manager-HR, after completing her postgraduation in Personnel Management with 66 percent marks. She has successfully implemented HR-System in her organisation during the last two years. She has secured 49 percent marks in the selection process. She was born on 14th December 1971.
17. Akash Shastri was born on 12th April 1967. He has been working for the past sixteen years, out of which six years as Senior Manager-HR, in an organisation after completing his postgraduation in HR with 58 percent marks. He has successfully implemented HR-System in his organisation last year. He has secured 65 percent marks in the selection process.
18. Shekhar Jena has been working for the past fifteen years, out of which last seven years as Senior Manager-HR, in an organisation after completing his postgraduation in HR with 68 percent marks. He has secured 60 percent marks in the selection process. He was born on 16th August 1965. He has successfully implemented HR-System in his organisation in past three years.
19. Sunetra Govil was born on 5th April 1964. She has been working for the past seventeen years, out of which nine years as Senior Manager-HR, in an organisation. She has secured 48 percent marks in the selection process. She has also secured 69 percent marks in the post graduation in Personnel Management. She successfully implemented HR-System in her organisation last year.
20. Mohit Saxena was born on 27th July 1963. He has been working for the past thirteen years, out of which nine years as Senior Manager-HR, after completing his post graduation in HR with 67 percent marks. He has secured 49 percent marks in the selection process. He has successfully implemented HR-System in his organisation during the past three years.

- (iii) have secured at least 60 percent marks in Postgraduate degree/diploma in Management/Economics/Statistics.
- (iv) be at least 25 years and not more than 35 years as on 01-03-2010.
- (v) have post graduation work experience of at least 2 years as General Banking Officer in a bank,
- (vi) have secured at least 50 percent marks in the written examination,
- (vii) have secured at least 40 percent marks in the Personal interview.

In the case of a candidate who satisfies all the above conditions: **EXCEPT**

- (A) at (iii) above, but has secured at least 60 percent marks in CA or ICWA, the case is to be referred to VP-Recruitment.
- (B) at (vii) above, but has secured at least 65 percent marks in the written examination and at least 35 percent marks in the personal interview, the case is to be referred to President-Recruitment.

In each question below are given details of one candidate. You have to take one of the following courses of action based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01-03-2010.

- Give answer (a)** if the data provided are inadequate to take a decision.
- Give answer (b)** if the case is to be referred to VP-Recruitment.
- Give answer (c)** if the case is to be referred to President-Recruitment.
- Give answer (d)** if the candidate is to be selected.
- Give answer (e)** if the candidate is not to be selected.

21. Kesav Vora was born on 8th November 1978. He has secured 65 percent marks in Std XII and 60 percent marks in Graduation. He has secured 58 percent marks in MA Economics and 60 percent marks in ICWA. He has been working in a bank as a generalist officer for the past two years after completing his education. He has also secured 50 percent marks in the written examination and 45 percent marks in the personal interview.
22. Arindam Ghosh has been working in a bank as a generalist officer for the past four years after completing his postgraduate diploma in management with 60 percent marks. He has secured 50 percent marks in the written examination and 40 percent marks in the personal interview. He has also secured 70 percent marks in Std XII. He was born on 25th February 1975.

**DIRECTIONS (Q.21-Q.25) :** Study the following information carefully and answer the questions given below:

Following are the conditions for selecting Senior Manager-General Banking in a bank:-

- The candidate must–
- (i) have secured at least 60 percent marks in Std XII.
  - (ii) have secured at least 55 percent marks in Graduation in any discipline.

<b>RESPONSE GRID</b>	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)
	20. (a)(b)(c)(d)(e)	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)		

23. Sohan Majhi has secured 65 percent marks in BSc and 70 percent marks in MSc Statistics. He has been working in a bank as a generalist officer for the past three years after completing his postgraduation. He has secured 55 percent marks in the written examination and 50 percent marks in the personal interview. He was born on 8th July 1982.
24. Neha Salve has been working in a bank as a generalist officer for the past four years after completing his postgraduate degree in Economics with 60 percent marks. She has secured 60 percent marks in both graduation and Std XII. She was born on 24th August 1979. She has secured 70 percent marks in the written examination and 38 percent marks in the personal interview.
25. Neeta Jaiswal was born on 2nd June 1980. She has been working in a bank as a generalist officer for the past three years after completing her postgraduate degree in Economics with 60 percent marks. She has secured 68 percent marks in HSC and 58 percent marks in BCom. She has also secured 50 percent marks in both the written examination and personal interview.

In each question below are given details of one candidate. You have to take one of the following courses of action based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 1-1-2010.

**Give answer (a)** if the data provided are not adequate to take a decision.

**Give answer (b)** if the candidate is to be selected.

**Give answer (c)** if the candidate is not to be selected.

**Give answer (d)** if the case is to be referred to GM-Personnel.

**Give answer (e)** if the case is to be referred to ED-Personnel.

26. Sohan Awasthi was born on 8th June 1987. He has secured 55 percent marks in both selection examination and personal interview. He can pay the security deposit of ₹ 50,000. He has secured 68 percent marks in post graduation and 59 percent marks in graduation.
27. Anuj Soren was born on 25th March 1984. He has secured 58 percent marks in graduation and 63 percent marks in postgraduation. He has secured 50 percent marks in both selection examination and personal interview. He is ready to pay the security deposit of ₹ 50,000.
28. Seema Biswas was born on 15th May 1985. She has secured 65 percent marks in graduation and 70 percent marks in postgraduation. She is ready to pay ₹ 50,000 as security deposit. She has also secured 45 percent marks in the selection examination.
29. Abhinav Ghosal has secured 52 percent marks in the personal interview and 40 percent marks in the selection examination. He can pay ₹ 25,000 as security deposit. Alternatively, he can sign a bond of one year. He was born on 3rd December 1984. He has secured 63 percent marks in graduation.
30. Namita Jaiswal has secured 62 percent marks in graduation and 52 percent marks in personal interview. She was born on 12th July 1983. She is ready to pay the security deposit of ₹ 50,000. She has secured 46 percent marks in the selection examination.

**DIRECTIONS (Q.26-Q.30) :** Study the following information carefully and answer the questions given below:

Following are the conditions for selecting Management Trainee in an organization:

The candidate must—

- (i) be a graduate with at least 60 percent marks.
- (ii) be not less than 21 years and not more than 28 years as on 1.1.2010
- (iii) be ready to pay ₹ 50,000 as security deposit.
- (iv) have secured at least 40 percent marks in the selection examination.
- (v) have secured at least 50 percent marks in personal interview.

In the case of a candidate who has satisfied all the above conditions:

**EXCEPT**

- (A) at (i) above, but has secured at least 65 percent marks in postgraduation, the case is to be referred to GM-Personnel.
- (B) at (iii) above, but is ready to sign a bond for one year, the case is to be referred to ED-Personnel.

<b>RESPONSE GRID</b>	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)
	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)		



**CODED INEQUALITIES**

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1- 6) :** In the following questions, the symbols  $\delta$ ,  $\$, *$ ,  $@$  and  $\odot$  are used with the following meanings as illustrated below:

- 'P  $\$$  Q' means 'P is neither equal to nor greater than Q'.
- 'P  $\odot$  Q' means 'P is neither equal to nor smaller than Q'
- 'P  $\delta$  Q' means 'P is neither greater than nor smaller than Q.'
- 'P  $@$  Q' means 'P is not smaller than Q'
- 'P  $*$  Q' means 'P is not greater than Q'.

In each question three statements showing relationship have been given, which are followed by three conclusions I, II and III. Assuming that the given statements are true, find out which conclusion(s) is/are **definitely true**?

1. **Statements:**  
B  $\odot$  N, N  $@$  R, F \* R  
**Conclusions:**  
I. B  $\odot$  R    II. F \* N    III. R  $\$$  B  
(a) Only I and II are true    (b) Only I and III are true  
(c) Only II and III are true    (d) All I, II and III are true  
(e) None of these
2. **Statements:**  
D  $\$$  M, M \* B, B  $\delta$  J  
**Conclusions:**  
I. J  $\odot$  D    II. B  $@$  D    III. J  $@$  M  
(a) Only I and II are true    (b) Only I and III are true  
(c) Only II and III are true    (d) All I, II and III are true  
(e) None of these
3. **Statements:**  
F \* T, T  $\$$  N, N  $@$  R  
I. B  $\odot$  R    II. F \* N    III. R  $\$$  B  
**Conclusions:**  
I. R  $\$$  T    II. N  $\odot$  F    III. F  $\$$  R  
(a) None is true    (b) Only I is true  
(c) Only II is true    (d) Only III is true  
(e) Only II and III are true
4. **Statements:**  
W  $\delta$  K, K  $\odot$  F, F  $\$$  M  
**Conclusions:**  
I. M  $\odot$  K    II. W  $@$  F    III. F  $@$  W  
(a) Only I is true    (b) Only II is true  
(c) Only III is true    (d) Only II and III are true  
(e) None is true

5. **Statements:**  
M  $@$  D, D  $\delta$  K, K  $\odot$  R  
**Conclusions:**  
I. R  $\$$  M    II. K  $\delta$  M    III. K  $\$$  M  
(a) Only I is true  
(b) Only II is true  
(c) Only III is true  
(d) Only either II or III and I are true  
(e) Only either II or III is true
6. **Statements:**  
F  $@$  T, T  $\delta$  K, K \* D  
**Conclusions:**  
I. D  $@$  F    II. F  $@$  K    III. D  $@$  T  
(a) Only II and III are true    (b) Only I and III are true  
(c) Only I and II are true    (d) All I, II and III are true  
(e) None of these

**DIRECTIONS (Q.7-Q.12) :** In the following questions, the symbols  $@$ ,  $\delta$ ,  $\star$ ,  $\$$  and  $\%$  are used with the following meanings as illustrated below :

- 'P  $\delta$  Q' means 'P is not smaller than Q'.
  - 'P  $\star$  Q' means 'P is not greater than Q'.
  - 'P  $\%$  Q' means 'P is neither greater than nor equal to Q'.
  - 'P  $\$$  Q' means 'P is neither smaller than nor equal to Q'
  - 'P  $@$  Q' means 'P is neither greater than nor smaller than Q'.
- Now in each of the following questions assuming the given statements to be true, find which of the three conclusions I, II and III given below them is/are definitely true and give your answer accordingly.
7. **Statements:**  
B  $\%$  N, N  $\delta$  F, F  $\star$  H  
**Conclusions:**  
I. H  $\$$  N    II. F  $\delta$  B    III. B  $\%$  H  
(a) Only I and II are true    (b) Only I and III are true  
(c) Only II and III are true    (d) None of true  
(e) All I, II and III are true
  8. **Statements:**  
W  $\delta$  F, F  $\%$  K, K  $\$$  M  
**Conclusions:**  
I. M  $\%$  F    II. M  $\delta$  F    III. W  $\$$  K  
(a) Only I is true    (b) Only II true  
(c) Only either I or II is true    (d) Only III is true  
(e) None of these

**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)

9. **Statements:**  
W \$ B, B @ M, M ★ R  
**Conclusions:**  
I. R \$ B      II. R @ B      III. M % W  
(a) Only either I or II is true  
(b) Only either I or II and III are true  
(c) Only III is true  
(d) All I, II and III are true  
(e) None of these
10. **Statements:**  
M ★ D, D \$ K, K @ T  
**Conclusions:**  
I. T % D      II. K % M      III. M % T  
(a) Only I is true      (b) Only II is true  
(c) Only III is true      (d) Only I and III are true  
(e) None of these
11. **Statements:**  
K @ F, F \$ M, M δ T  
**Conclusions:**  
I. T % F      II. M % K      III. K \$ T  
(a) Only I and II are true      (b) Only I and III are true  
(c) Only II and III are true      (d) All I, II and III are true  
(e) None of these
12. **Statements:**  
N ★ A, A % B, B δ D  
**Conclusions:**  
I. D % A      II. B \$ N      III. N % D  
(a) None is true      (b) Only I is true  
(c) Only II is true      (d) Only III is true  
(e) Only I and II are true
13. **Statements:** R @ D, D © W, B \$ W  
**Conclusions:**  
I. W # R      II. B © D      III. W \$ R  
(a) None is true      (b) Only I is true  
(c) Only III is true      (d) Only either I or III is true  
(e) All are true
14. **Statements:**  
H \$ V, V % M, K © M  
**Conclusions:** I. K © V  
II. M @ H  
III. H © K  
(a) Only I and III are true      (b) Only II and III are true  
(c) Only I and II are true      (d) All are true  
(e) None of these
15. **Statements:**  
K # T, T \$ B, B @ F  
**Conclusions:** I. F \$ T  
II. K # B  
III. T \$ F  
(a) None is true      (b) Only I is true  
(c) Only I and II are true      (d) Only II and III are true  
(e) All are true
16. **Statements:**  
Z # F, R @ F, D © R  
**Conclusions:** I. Z # R  
II. F # D  
III. D @ Z  
(a) None is true      (b) Only I is true  
(c) Only III is true      (d) Only either I or III is true  
(e) All are true
17. **Statements:**  
M © R, R % D, D @ N  
**Conclusions:** I. M © N  
II. N \$ R  
III. M © D  
(a) Only I and II are true      (b) Only II and III are true  
(c) Only I and III are true      (d) All are true  
(e) None of these

**DIRECTIONS (Q.13-17) :** In the following questions, the symbols @, #, %, \$ and © are used with the following meaning as illustrated below:

- 'P # Q' means 'P is neither greater than nor equal to Q'.  
'P © Q' means 'P is neither equal to nor smaller than Q'  
'P % Q' means 'P is neither smaller than nor greater than Q'.  
'P \$ Q' means 'P is not smaller than Q'  
'P @ Q' means 'P is not greater than Q'.

Now in each of the following questions, assuming the given statements to be true, find which of the three conclusions I, II and III given below them is/are definitely true and give your answer accordingly.

18. **Statement:**  $P \geq Q = R > S > T$   
**Conclusions:** I.  $P \geq T$   
II.  $T < Q$
19. **Statement:**  $L \leq M < N > O \geq P$   
**Conclusions:** I.  $O < M$   
II.  $P \leq N$
20. **Statement:**  $A > B, B \geq C = D < E$   
**Conclusions:** I.  $C < A$   
II.  $D \leq B$

RESPONSE  
GRID

9. (a)(b)(c)(d)(e)    10. (a)(b)(c)(d)(e)    11. (a)(b)(c)(d)(e)    12. (a)(b)(c)(d)(e)    13. (a)(b)(c)(d)(e)  
14. (a)(b)(c)(d)(e)    15. (a)(b)(c)(d)(e)    16. (a)(b)(c)(d)(e)    17. (a)(b)(c)(d)(e)    18. (a)(b)(c)(d)(e)  
19. (a)(b)(c)(d)(e)    20. (a)(b)(c)(d)(e)





101 SPEED TEST

47

com

## STATEMENTS &amp; ARGUMENTS

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-15) :** In making decisions about important questions, it is desirable to be able to distinguish between "strong" arguments and "weak" arguments. "Strong" arguments must be both important and directly related to the questions. "Weak" arguments may not be directly related to the question and may be of minor importance or may be related to the trivial aspects of the question.

Each question below is followed by three arguments numbered I, II and III. You have to decide which of the arguments is a "strong" argument and which is a "weak" argument.

1. Should smoking cigarettes and drinking alcohol by the actors be completely banned in the movies in India?

**Arguments: I.** Yes, this will significantly reduce the trend of smoking cigarettes and drinking alcohol among the youth in India.

**II.** No, there should be no such ban on the creative pursuits of the filmmaker.

**III.** No, the films portray the society and hence such scenes should be an integral part of the movie if the storyline demands so.

- (a) None is strong (b) Only I & II are strong  
(c) Only II & III are strong (d) Only I & III are strong  
(e) All are strong

2. Should sale of vital human organs be made legal in India?

**Arguments: I.** No, it goes against our culture.

**II.** No, this will lead to unhealthy practices.

**III.** Yes, this will bring an end to the illegal trading of human organs.

- (a) None is strong (b) Only I & II are strong  
(c) Only III is strong (d) Only II & III are strong  
(e) All are strong

3. Should the conscription of citizens for defence services be made compulsory in India?

**Arguments: I.** Yes, this is the only way to tackle the serious shortage of manpower in defence services.

**II.** No, instead the compensation package be made comparable to other job sectors to attract people to join defence services.

**III.** Yes, many other countries have made this compulsory.

- (a) Only I is strong (b) Only II is strong  
(c) Only I and II are strong  
(d) Only either I or II is strong  
(e) None of these

4. Should the salary and perquisites of public sector undertaking employees to made equivalent to those in the private sector?

**Arguments: I.** Yes, this will help the public sector undertakings to attract and retain competent workforce.

**II.** No, public sector undertakings cannot afford to pay salaries to the level of private sector.

**III.** Yes, otherwise the public sector undertakings will not be able to compete with the private sector organisations.

- (a) None is strong (b) Only III is strong  
(c) Only I is strong (d) Only II is strong  
(e) Only I and III are strong

5. Should there be a complete ban on registration of new cars for a few months in the big cities in India?

**Arguments: I.** Yes, this will significantly reduce the number of cars on the already overcrowded roads of the big cities in India.

**II.** Yes, the existing car owners will be very happy as they will face less traffic snarls in peak hours.

**III.** No, this is highly discriminatory against those who decide to buy cars now and hence should not be enforced.

- (a) Only I is strong (b) Only I & III are strong  
(c) Only III is strong (d) All are strong  
(e) None of these

6. Should the Govt restrict use of electricity for each household depending upon the requirement?

**Arguments: I.** Yes, this will help government tide over the problem of inadequate generation of electricity.

**II.** No, every citizen has the right to consume electricity as per their requirement as they pay for using electricity.

**III.** No, the Govt does not have the machinery to put such a restriction on the use of electricity.

- (a) Only I is strong (b) Only II is strong  
(c) Only I and II are strong (d) Only II and III are strong  
(e) All I, II and III are strong

7. Should the Govt order closure of all educational institutions for a month to avoid fast spreading of the contagious viral infection?

**Arguments: I.** No, the closure of educational institutions alone is not the solution for curbing the spread of the viral infection.

**II.** No, students will visit crowded places like malls, markets, playgrounds etc. in more numbers and spread the disease, as they will have a lot of spare time at their disposal.

**III.** Yes, young persons are more prone to get affected by the viral infection and hence they should remain indoors.

- (a) None is strong (b) Only I is strong  
(c) Only III is strong (d) Only I and II are strong  
(e) All I, II and III are strong

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e)

8. Should the Govt ban export of all types of foodgrains for the next one year to tide over the unpredicted drought situation in the country?  
**Arguments: I.** Yes, there is no other way to provide food to its citizens during the year.  
**II.** No, the Govt does not have its jurisdiction over private exporters for banning exporters.  
**III.** Yes, the Govt should not allow the exporters to export foodgrains and procure all the foodgrains held by such exporters and make it available for home consumption.  
 (a) Only I and II are strong (b) Only II and III strong  
 (c) Only I and III are strong (d) All I, II and III are strong  
 (e) None of these
9. Should there be a common syllabus for all subjects in graduate courses in all the universities across the country?  
**Arguments: I.** Yes, this is the only way to spring in uniformity in the education system in the country.  
**II.** Yes, it will help standardise the quality of graduation certificates being given by different universities in the country.  
**III.** No, each universities should have the autonomy to decide its syllabus based on the specific requirement of the university.  
 (a) None is strong (b) Only I is strong  
 (c) Only II is strong (d) Only I and II are strong  
 (e) Only II and III are strong
10. Should all those students who failed in one or two subjects in HSC be allowed to take admission in degree courses and continue their study, subject to their successfully passing in the supplementary examination?  
**Arguments: I.** Yes, this will help the students to complete their education without a break of one year.  
**II.** Yes, this is a forward-looking strategy to help the students and motivate them for higher studies.  
**III.** No, such students do not choose to continue their studies without having passed in all the subjects in HSC.  
 (a) Only I is strong (b) Only II is strong  
 (c) Only III is strong  
 (d) Only either II or III and I are strong  
 (e) None of these
11. **Statement:** Should the number of holidays given to Govt employees be reduced to only five in a year?  
**Arguments: I.** Yes, such holidays subsequently reduce working hours, thus adversely affecting the economy of the nation.  
**II.** No, employees require intermittent rest from hectic work schedule.
12. **Statement:** Should all correspondence courses at graduate level be stopped?  
**Arguments: I.** No, correspondence courses help needy students to pursue studies and earn at the same time.  
**II.** Yes, quality education is not possible without teachers and classrooms.
13. **Statement:** Should only nuclear power be used to generate electricity?  
**Arguments: I.** Yes, this will help reduce air pollution to a great extent.  
**II.** No, radioactive material used in nuclear plants is unsafe for large-scale use.
14. **Statement:** Should the Govt remove all the slums in major cities?  
**Arguments: I.** Yes, slums are a nuisance to the people living in big cities.  
**II.** No, inhabitants of slums are also citizens of the country and they contribute towards the growth of the nation.
15. **Statement:** Should cricket replace hockey as the national sport of India?  
**Arguments: I.** Yes, the performance of the hockey team has been dismal for the last few years.  
**II.** No, cricket is the national sport of Australia and no two countries must have the same national sport.
16. **Statement:** Should the sale of all the toys made in China be banned in India?  
**Arguments: I.** Yes, there are very cheap and hence will put the local toy manufacturers out of business.  
**II.** No, Indian toys are of much better quality and their sale will not be affected.
17. **Statement:** Should there be no examination upto Std IX in all the schools in India?  
**Arguments: I.** No, students need to go through the process of giving examinations right from young age.  
**II.** Yes, this will help students to think laterally and achieve then creative pursuits.
18. **Statement:** Should there be only a uniform rate of income tax irrespective of the level of income?  
**Arguments: I.** Yes, this will substantially reduce the work of the officials of the income tax department.  
**II.** No, this will reduce Govt. tax collection to a large extent.
19. **Statement:** Should there be only two political parties in India?  
**Arguments: I.** Yes, in many developed countries there are only two political parties.  
**II.** No, Indian electorate is not mature to select between only two political parties.
20. **Statement:** Should the sale of tobacco products be restricted to only a few outlets in each city/town?  
**Arguments: I.** Yes, this will substantially reduce consumption of tobacco products.  
**II.** No, those who want to purchase tobacco products should get them at convenient locations.

**DIRECTIONS (Q.11-20) :** In making decisions about important questions, it is desirable to be able to distinguish between "strong" arguments and "weak" arguments. "Strong" arguments must be both important and directly related to the question. "Weak" arguments may not be directly related to the question and may be of minor importance or may be related to the trivial aspects of the question. Each question below is followed by two arguments numbered I and II. You have to decide which of the arguments is a "strong" argument and which is a "weak" argument. Each question below is followed by two arguments numbered I and II. You have to decide which of the arguments is a "strong" argument and which is a "weak" argument.

- Give answer (a)** if only argument I is strong.  
**Give answer (b)** if only argument II is strong.  
**Give answer (c)** if either argument I or II is strong.  
**Give answer (d)** if neither argument I nor II is strong.  
**Give answer (e)** if both arguments I and II are strong.

**RESPONSE GRID**

8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)
13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)
18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)		



**EVALUATING INFERENCES**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1-30) :** Below is given passages followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

**Given answer (a)** if the inference is 'definitely true', i.e. it properly follows from the statement of facts given.

**Given answer (b)** if the inference is 'probably true', though not 'definitely true' in the light of the facts given.

**Given answer (c)** If the 'data are inadequate', i.e. from the facts given you cannot say whether the inference is likely to be true or false.

**Given answer (d)** if the inference is 'probably false' though not 'definitely false' in the light of the facts given.

**Given answer (e)** if the inference is 'definitely false', i.e. it cannot possibly be drawn from the facts given or it contradicts the given facts.

**PASSAGE - 1**

Privatisation is no panacea when it comes to education. Nor can high-cost intervention at the tertiary stage produce quality talent. The backbone of quality education is primary schooling. And improving that is not just a question of funding. The government has taken some steps to improve the situation by increasing the percentage of allocation in the budget. But it has done precious little to increase the efficacy of public spending in education. For that is a political and administrative task. Teachers who do not turn up to teach at rural schools (absenteeism is about 30% according to one estimate) and teachers who are not equipped or motivated to teach but continue in service with challenge are part of India's socio-political reality.

1. Motivating the primary school teachers and improving attendance of these teachers are major challenges in India.
2. The Indian Govt has not done enough to improve the quality of secondary education.
3. Govt has been unsuccessful in achieving the desired result in education.
4. Quality of education is ensured in all the privately run educational institutions in India.
5. Allocating more funds in the budget for primary education will substantially improve the quality of education.

**PASSAGE - 2**

The deterioration in the overall asset quality of banks – gross Non-Performing Assets (NPAs) are reportedly 27% higher at the end of December 2009 than at the end of December 2008 – is not surprising. Any slowdown in growth is bound to trigger a rise in NPAs as more and more companies default on loan repayments. The effect would be pronounced when the slowdown coincides with a severe global recession. But for the restructuring of loans permitted by the Central Bank on fairly generous terms, NPAs would have been still higher. Prudent banks that took care while sanctioning loans and then monitored the post-sanction disbursement diligently should be able to weather the crisis. But it is one thing to have NPAs rise because of a cyclical downturn, and quite another to have them rise because of policy errors that are entirely within the realm of policymakers. And this is what we need to guard against. Excessively low interest rates skew the risk-reward equation by making projects that are actually not viable appear viable till interest rates reverse and the same projects cease to be viable! It is now well established that long periods of unduly low interest rate encourage banks to take more risks. A low interest rate regime driven by an easy money policy rather than macroeconomic fundamentals leads to excessive expansion of credit. It incentivises banks to take on more risk in search of higher returns and misprice risk.

6. Higher NPAs indicate shortcomings in disbursement and follow-up of credit given by banks.
7. The Central Bank always allows banks to restructure their loans in the event of rise in NPAs.
8. Lower interest rate cycle projects commercially unviable projects as viable.
9. Low interest rate on credit reduces the capacity to absorb various unaccounted risk factors.
10. Bank's NPAs occur only due to economic factors.

**PASSAGE - 3**

There has been considerable debate in India regarding the privatisation of higher education. In this debate, there is generally an implicit assumption that privatisation is essentially the same as corporatisation, i.e. private investment comes due to the potential of returns. In the higher education field, privatisation and corporatisation are actually quite different. Privatisation is

**RESPONSE GRID**

- |                    |                    |                    |                    |                     |
|--------------------|--------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e) | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e) | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |

regarding who controls the educational institute and the role of government in the management and funding of the institute, while corporatisation is about making profits. In India, there is no doubt that private not-for-profit universities need to be encouraged to increase education opportunities, and for the fact that there is no other alternative as the government simply cannot create enough public universities to satisfy the demand. However, the guidelines for private not-for-profit universities should be made clear, simple and transparent to ensure that they are truly not for profit and offer a level playing field to all those who might want to set up a private university.

11. Privatisation of higher education has yet to make proper shape in India.
12. Expansion of higher education opportunities in India is needed to meet the increasing demand.
13. Corporatisation of higher education has benefited the students in the developed countries.
14. Privatisation of higher education will lead to commercialisation of education in India.
15. India does not have any extant guidelines for setting up higher educational institutions by private entities.

#### PASSAGE - 4

Asia has become the growth centre of the world economy in recent years. Within the region, India and South Korea are the third and fourth largest economies after China and Japan. Though the Asian growth stories mainly revolve around India and China, South Korea has remained a key player for these countries as one of their major trading and investment partners. South Korea adopted outward-oriented economic policies with the beginning of its first five-year economic development plan in 1962, which resulted in high growth and the integration of the Korean economy with the rest of the world. Subsequently, high and consistent economic growth made South Korea one of the high-income economies in Asia. Korea is still growing at a faster rate compared to other developed economies. India on the other hand adopted an import substitution policy since its Independence until the early 1990s. Since India has introduced wide-ranging economic policy reforms and is moving towards market-driven economy. This has resulted in consistent high economic growth over the last one-and-a-half decades.

16. Only Korean economy is considered as robust by the international community.
17. Japan's economic growth over the last decade is the highest in Asia.
18. The Korean economy is traditionally different than the Indian economy in its approach.
19. The economic growth of India prior to 1990s was much higher than the present growth rate.
20. India and China together are considered to be the driving force of the Asian economy.

#### PASSAGE - 5

Investors today have more investment options than were available just a few years ago. Choice in any decision making is good in so far it provides variety differentiation and bench-marking. It could also, however, at times lead to clutter and "noise" if the options are mostly similar and undifferentiated. To make sense of this choice conundrum, it is imperative for an investor to define the objective – both returns and digestible risk and then identify the possible options. The investor also needs to select the mix and regularly monitor that objectives and investment outcomes remain aligned. Sounds simple, but can present the most confounding situations which multiplies with the quantum of wealth.

21. Investment of higher amount is relatively simpler than smaller amounts.
22. Investors need to critically evaluate the risk of each investment options.
23. Present-day investors need to use their judgement more critically before investing.
24. Multiple investment options of similar type help in making better investment decisions.
25. In the past, investors were generally guided by the fund managers.

#### PASSAGE - 6

The performance of Indian agriculture is largely dependent on amount of rainfall across the country. A substantive part of the cultivable land is dependent on irrigation which is directly related to monsoon. However, agriculture and allied activities account for less than even one-fourth of the total GDP. The component of the manufacturing sector that depends on agriculture for the supply of intermediates is not very high, which suggests that the structure of industrialisation has changed over the years. Several components of the tertiary sector that are crucial for the growth of the rest of the economy have grown sizeably, thanks to IT and BPO. So it is less likely that aggregate economic growth will be adversely affected if rainfall is scanty. Yet, a somewhat different picture emerges if we look deeper into the matter. Still, a very significant chunk of the population and work for depends on agriculture for its livelihood. A decline in agriculture reduces per capita food availability, which in turn, pulls down the standard of living.

26. Agro based activities constitute more than 25 percent of GDP in India.
27. The industrialisation process had undergone significant changes over the past few decades.
28. Non-industrial and non-agricultural sector activities have considerably grown over the past few years.
29. Weak monsoon have adverse effect on GDP even though non-agricultural sector activities may continue to be the same.
30. Manufacturing sector no longer depends on agricultural sector.

#### RESPONSE GRID

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 11. (a) (b) (c) (d) (e) | 12. (a) (b) (c) (d) (e) | 13. (a) (b) (c) (d) (e) | 14. (a) (b) (c) (d) (e) | 15. (a) (b) (c) (d) (e) |
| 16. (a) (b) (c) (d) (e) | 17. (a) (b) (c) (d) (e) | 18. (a) (b) (c) (d) (e) | 19. (a) (b) (c) (d) (e) | 20. (a) (b) (c) (d) (e) |
| 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) | 23. (a) (b) (c) (d) (e) | 24. (a) (b) (c) (d) (e) | 25. (a) (b) (c) (d) (e) |
| 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) | 28. (a) (b) (c) (d) (e) | 29. (a) (b) (c) (d) (e) | 30. (a) (b) (c) (d) (e) |



## SYLLOGISMS - I

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-15) :** In each of the questions below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read both of the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

1. **Statements:** Some phones are computers.  
All computers are radios.  
All radios are televisions.  
**Conclusions: I.** All televisions are computers.  
**II.** Some radios are phones.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Both I and II follow  
(e) None of these
2. **Statements:** All rings are fingers.  
Some ears are fingers.  
All ears are necklaces.  
**Conclusions: I.** Some necklaces are fingers.  
**II.** Some necklaces are rings.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Both I and II follow  
(e) None of these
3. **Statements:** Some bottles are cups.  
Some cups are plates.  
No spoon is a plate.  
**Conclusions: I.** Some spoons are bottles.  
**II.** No bottle is a spoon.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Either I or II follow  
(e) None of these
4. **Statements:** All pens are erasers.  
Some erasers are sharpeners.  
Some sharpeners are staples  
**Conclusions: I.** Some sharpeners are pens.  
**II.** Some staples are erasers.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Both I and II follow  
(e) None of these
5. **Statements:** All hills are trees.  
All trees are jungles.  
All jungles are bushes.  
**Conclusions: I.** All trees are bushes.  
**II.** Some jungles are hills.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Both I and II follow  
(e) None of these
6. **Statements:** All rockets are poles.  
Some poles are trams.  
Some trams are ropes.  
All ropes are tents.  
**Conclusion: I.** Some tents are trams.  
**II.** Some ropes are rockets.  
**III.** Some trams are rockets.  
**IV.** Some poles are rockets  
(a) Only I and II follow (b) Only I, II and III follow  
(c) Only I and III follow (d) Only I and IV follow  
(e) None of these
7. **Statements:** All dials are mirrors.  
All mirrors are spoons.  
Some spoons are decks.  
Some decks are chairs.  
**Conclusions: I.** Some decks are mirrors.  
**II.** Some spoons are dials.  
**III.** Some decks are dials.  
**IV.** Some chairs are spoons.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Only III follows  
(e) Only IV follows
8. **Statements:** Some houses are forests.  
All forests are trees.  
Some trees are hills.  
All hills are buses.  
**Conclusions: I.** Some buses are trees.  
**II.** Some trees are houses.  
**III.** Some hills are houses.  
**IV.** Some buses are forests.  
(a) Only I and II follow (b) Only I, II and IV follow  
(c) Only I, II and III follow (d) All I, II, III and IV follow  
(e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e)

9. **Statements :** Some lakes are rivers.  
Some rivers are mountains.  
Some mountains are books.  
Some books are papers.
- Conclusions: I.** Some books are rivers.  
**II.** Some papers are lakes.  
**III.** Some mountains are lakes.  
**IV.** No paper is a lake.
- (a) None follows  
(b) Only either II or IV follows  
(c) Only II follows  
(d) Only IV follows  
(e) Only either II or IV and III follow
10. **Statements:** Some tigers are horses.  
All horses are goats.  
All goats are dogs.  
Some dogs are cats.
- Conclusions: I.** Some cats are tigers.  
**II.** Some dogs are horses.  
**III.** Some goats are tigers.  
**IV.** Some cats are horses
- (a) Only I and II follow (b) Only I, II and III follow  
(c) Only II and III follow (d) Only II, III and IV follow  
(e) None of these
11. **Statements:** All notebooks are pens.  
No pen is a table  
Some tables are desks.  
All desks are tanks.
- Conclusions: I.** Some tanks are pens.  
**II.** Some desks are notebooks.  
**III.** Some tanks are tables.  
**IV.** No tanks is a pen.
- (a) Only I follows (b) Only III follows  
(c) Only IV follows (d) Only either I or IV follows  
(e) Only either I or IV and III follows
12. **Statements:** All belts are rollers.  
Some rollers are wheels.  
All wheels are mats.  
Some mats are cars.
- Conclusions: I.** Some mats are rollers.  
**II.** Some mats are belts.  
**III.** Some cars are rollers.  
**IV.** Some rollers are belts.
- (a) Only I and II follow (b) Only I, III and IV follow  
(c) Only I and IV follow (d) Only II, III and IV follow  
(e) None of these
13. **Statements:** Some tyres are rains.  
Some rains are flowers.  
All flowers are jungles.  
All jungles are tubes.
- Conclusions: I.** Some jungles are tyres.  
**II.** Some tubes are rains.  
**III.** Some jungles are rains  
**IV.** Some tubes are flowers.
- (a) Only I, II and III follow (b) Only II, III and IV follow  
(c) Only I, III and IV follow (d) All follow  
(e) None of these

14. **Statements:** All desks are chairs.  
All chairs are tables.  
All tables are boxes.  
All boxes are trunks.
- Conclusions: I.** Some trunks are tables.  
**II.** All chairs are boxes.  
**III.** Some boxes are desks.  
**IV.** All desks are trunks
- (a) Only I, II and III follow (b) Only I, II and IV follow  
(c) Only II, III and IV follow (d) All follow  
(e) None of these
15. **Statements:** Some birds are goats.  
Some goats are horses  
Some horses are lions.  
Some lions are tigers.
- Conclusions: I.** Some tigers are goats.  
**II.** No tigers is goat  
**III.** Some lions are birds.  
**IV.** No lion is bird.
- (a) Only either I or II follows  
(b) Only either III or IV follows  
(c) Only either I or II and either III or IV follow  
(d) Only I and III follow  
(e) None of these

**DIRECTIONS (Q.16-20) :** In each questions below are two / three statements followed by two conclusions numbered I and II. You have to take the two / three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

**Give answer**

- (a) if only conclusion I follows.  
(b) if only conclusion II follows.  
(c) if either conclusion I or II follows.  
(d) if neither conclusion I nor II follows.  
(e) if both conclusions I and II follows.
16. **Statements:** No holiday is a vacation.  
Some vacations are trips.
- Conclusions: I.** No trip is a holiday.  
**II.** Some holidays are definitely not trips.
17. **Statements:** Some kites are birds.  
No kite is an aeroplane.
- Conclusions: I.** All aeroplanes are birds.  
**II.** Some birds are definitely not kites.
18. **Statements:** All metals are plastics.  
All plastics are fibres.
- Conclusions: I.** At least some fibres are metals  
**II.** Some metals are not fibres.
19. **Statements:** Some animals are plants.  
All plants are rocks.
- Conclusions: I.** All plants are animals.  
**II.** Atleast some rocks are animals.
20. **Statements:** Some institutes are banks.  
All institutes are academies.  
All academies are schools.
- Conclusions: I.** All banks can never be schools.  
**II.** Any bank which is an institute in a school.

**RESPONSE  
GRID**

9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e) 11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e)  
14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e)  
19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e)



## SYLLOGISMS - II

Max. Marks : 25

No. of Qs. 25

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-5) :** In each of the questions below are given three statements followed by three conclusions numbered I , II and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

1. **Statements:**  
Some flowers are bins.  
Some bins are handles  
All handles are sticks.  
**Conclusions:**  
**I.** Some sticks are bins.  
**II.** Some handles are flowers.  
**III.** Some sticks are flowers.  
(a) Only II follows (b) Only III follows  
(c) Only I and II follow (d) Only I and III follow  
(e) None of these
2. **Statements:**  
Some towers are windows.  
All windows are houses.  
Some houses are temples  
**Conclusions:**  
**I.** Some towers are temples.  
**II.** Some houses are towers.  
**III.** Some temples are windows.  
(a) Only I follows (b) Only II follows  
(c) Only III follows (d) Only I and II follow  
(e) None of these
3. **Statements:**  
Some walls are doors.  
Some doors are cots.  
Some cots are chairs.  
**Conclusions:**  
**I.** Some chairs are doors.  
**II.** Some cots are walls.  
**III.** No chair is door.  
(a) Only II follows  
(b) Only III follows  
(c) Only either I or III follows  
(d) Only I follows  
(e) None of these

4. **Statements:**  
All trees are gardens.  
All gardens are stones.  
All stones are fences.  
**Conclusions:**  
**I.** Some fences are gardens.  
**II.** All gardens are stones.  
**III.** Some stones are trees.  
(a) Only I and II follows (b) Only I and III follows  
(c) Only II or III follow (d) All follow  
(e) None of these
5. **Statements:**  
All books are leaves.  
Some leaves are jungles.  
No jungle is box.  
**Conclusions:**  
**I.** Some jungles are books.  
**II.** No book is box.  
**III.** Some leaves are boxes.  
(a) None follows (b) Only I follows  
(c) Only II follows (d) Only III follows  
(e) Only I and II follow

**DIRECTIONS (Q.6-25) :** In each questions below are given two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts. Give answer.

- (a) if only conclusion I follows.  
(b) if only conclusion II follows.  
(c) if either conclusion I or II follows.  
(d) if neither conclusion I nor II follows.  
(e) if both conclusions I and II follows.
6. **Statements:**  
Some toys are desks.  
Some desks are pens.  
All pens are rods.  
**Conclusions:**  
**I.** Some rods are toys.  
**II.** Some pens are toys.

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e)

7. **Statements:**  
Some table are huts.  
No hut is ring.  
All rings are bangles.  
**Conclusions:**  
**I.** Some bangles are tables.  
**II.** No bangles is table.
8. **Statements:**  
Some chairs are rooms.  
All rooms are trees.  
All trees are poles.  
**Conclusions:**  
**I.** Some poles are chairs.  
**II.** Some trees are chairs.
- 9-10. **Statements:**  
All buildings are houses.  
No house is an apartment.  
All apartments are flats.
9. **Conclusions:**  
**I.** No flat is a house.  
**II.** No building is an apartment.
10. **Conclusions:**  
**I.** All buildings being flats is a possibility.  
**II.** All apartments being building is a possibility.
- 11-12. **Statements:**  
Some oceans are seas.  
All oceans are rivers.  
No river is a canal.
11. **Conclusions:**  
**I.** All rivers can never be oceans.  
**II.** All canals being oceans is a possibility.
12. **Conclusions:**  
**I.** No ocean is a canal.  
**II.** At least some seas are rivers.
- 13-14. **Statements:**  
No day is night.  
All nights are noon.  
No noon is an evening.
13. **Conclusions:**  
**I.** No day is noon.  
**II.** No day is an evening.
14. **Conclusions:**  
**I.** No evening are nights.  
**II.** All days being noon is a possibility.
- 15-16. **Statements:**  
Some papers are boards  
No board is a card.
15. **Conclusions:**  
**I.** No card is a paper.  
**II.** Some papers are cards.
16. **Conclusions:**  
**I.** All cards being papers is a possibility.  
**II.** All boards being papers is a possibility.
17. **Statements:** All rings are circles.  
All squares are rings.  
No ellipse is a circle.  
**Conclusions:** **I.** Some, rings being ellipses is a possibility.  
**II.** At least some circles are squares.
18. **Statements :** No house is an apartment.  
Some bungalows are apartments.  
**Conclusions:** **I.** No house is a bungalow.  
**II.** All bungalows are houses.
19. **Statements:** Some gases are liquids.  
All liquids are water.  
**Conclusions:** **I.** All gases being water is a possibility.  
**II.** All such gases which are not water can never be liquids.
20. **Statements:** All minutes are seconds.  
All seconds are hours.  
No second is a day.  
**Conclusions:** **I.** No day is an hour.  
**II.** At least some hours are minutes.
- (21-22): **Statements:** Some teachers are professors.  
Some lecturers are teachers.
21. **Conclusions:** **I.** All teachers as well as professors being lecturers is a possibility.  
**II.** All those teachers who are lecturers are also professors.
22. **Conclusions:** **I.** No professor is a lecturer.  
**II.** All lecturers being professors is a possibility.
- (23-24):  
**Statements:** Some flowers are red.  
Some roses are flowers.
23. **Conclusions:**  
**I.** All those flowers which are roses are red.  
**II.** No rose is red.
24. **Conclusions :**  
**I.** All roses being red is a possibility.  
**II.** Some flowers can never be roses.
25. **Statements:** Some hills are mountains.  
All mountains are high.  
**Conclusions:** **I.** All hills being high is a possibility.  
**II.** Some mountains can never be hills.

<b>RESPONSE GRID</b>	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)	11. (a)(b)(c)(d)(e)
	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)
	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)	21. (a)(b)(c)(d)(e)
	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)	





101 SPEED TEST

51

INPUT OUTPUT - 1

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-5) :** A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of an input and rearrangement.

- Input** : 17 put show on 39 27 85 gold  
**Step I** : show 17 put on 39 27 85 gold  
**Step II** : show 85 17 put on 39 27 gold  
**Step III** : show 85 put 17 on 39 27 gold  
**Step IV** : show 85 put 39 17 on 27 gold  
**Step V** : show 85 put 39 on 17 27 gold  
**Step VI** : show 85 put 39 on 27 17 gold  
**Step VII** : show 85 put 39 on 27 gold 17

and step VII is the last step of the rearrangement of the above input.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

- Input** : glass full 15 37 water now 85 67  
Which of the following will be step VI of the above input?  
 (a) 85 now 67 full glass 15 37  
 (b) water 85 now 67 glass full 15 37  
 (c) water 85 now 67 glass 37 full 15  
 (d) There will be no such step.  
 (e) None of these
- Step II of an input is: ultra 73 12 16 mail sort 39 kite. Which of the following steps will be the last but one?  
 (a) VIII (b) IX (c) VII  
 (d) VI (e) None of these
- Step III of an input is: win 75 voice 15 39 store gap 26. Which of the following is definitely the input?  
 (a) voice 15 win 75 39 store gap 26  
 (b) voice win 75 15 39 store gap 26  
 (c) 15 75 win voice store gap 26  
 (d) Cannot be determined  
 (e) None of these
- Step II of an input is: tube 83 49 34 garden flower rat 56. How many steps will be required to complete the rearrangement?  
 (a) Four (b) Five (c) Six  
 (d) Three (e) None of these
- Input** : hunt for 94 37 good 29 48 book.  
How many steps will be required to complete the rearrangement?  
 (a) Four (b) Five (c) Six  
 (d) Seven (e) None of these

**DIRECTIONS (Q. 6 to 10) :** Study the following information to answer the given questions:

A word arrangement machine when given an input line of words rearranges them following a particular rule. The following is an illustration of input and rearrangement.

- Input: age road own wire tire ink pen uni dice eat  
**Step I** : uni age road own wire tire ink pen eat dice  
**Step II** : uni own age road wire tire ink eat pen dice  
**Step III** : uni own ink age wire tire eat road pen dice  
**Step IV** : uni own ink eat age wire tire road pen dice

And step four is the last step of the rearrangement.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Input for the questions

**Input: gem stat ace cast omit fan rate uncut era input**

- Which of the following would be the final arrangement?  
 (a) cast gem fan rate stat uncut omit input era ace  
 (b) uncut omit input era ace cast fan gem rate stat  
 (c) uncut omit input era ace stat rate gem fan cast  
 (d) uncut omit input era ace stat fan gem rate cast  
 (e) None of these
- In Step III, which of the following words would be at 6th position from the left?  
 (a) rate (b) ace (c) stat  
 (d) gem (e) None of these
- Which step number would be the following output? uncut omit gem stat ace rate era input fan cast  
 (a) II (b) III (c) V  
 (d) IV (e) None of these
- In step IV of the rearrangement, if **omit** is related to **era** and rate is related to **fan** in a certain way, which of the following would **ace** be related to following the same pattern?  
 (a) rate (b) input (c) stat  
 (d) gem (e) None of these
- Which of the following would be step VII?  
 (a) uncut omit input era ace stat rate gem fan cast  
 (b) uncut omit input era ace rate stat fan gem cast  
 (c) uncut omit input era ace cast fan gem rate stat  
 (d) uncut omit input era stat ace rate gem fan cast  
 (e) There will be no such step as the input gets rearranged before step VII.

RESPONSE GRID

- |                    |                    |                    |                    |                     |
|--------------------|--------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e) | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e) | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |

**DIRECTIONS (Q.11 to 15) :** Study the following information to answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement. (All the numbers are two-digit numbers.)

**Input :** sine 88 71 cos theta 14 56 gamma delta 26

**Step I :** cos sine 71 theta 14 56 gamma delta 26 88

**Step II :** delta cos sine theta 14 56 gamma 26 88 71

**Step III :** gamma delta cos sine theta 14 26 88 71 56

**Step IV :** sine gamma delta cos theta 14 88 71 56 26

**Step V :** theta sine gamma delta cos 88 71 56 26 14

Step V is the last step of the rearrangement.

As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input for the questions:

**Input :** for 52 all 96 25 jam road 15 hut 73 bus stop 38 46 (All the numbers given in the arrangement are two digit numbers).

11. Which word/ number would be at 8th position from the right in step IV ?  
(a) 15 (b) road (c) hut  
(d) jam (e) stop
12. Which step number would be the following output? Bus all for 52 25 jam road 15 hut stop 38 46 96 73.  
(a) There will be no such step.  
(b) III  
(c) II  
(d) V  
(e) VI
13. Which of the following would be step VII?  
(a) stop road jam hut for bus all 15 96 73 5246 38 25  
(b) road jam hut for bus all stop 15 25 38 46 52 73 96  
(c) stop road jam hut for bus all 96 73 52 46 38 25 15  
(d) jam hut for bus all 25 road stop 15 96 73 52 46 38  
(e) There will be no such step
14. Which word/number would be at 6th position from the left in step V?  
(a) 25 (b) stop (c) jam  
(d) all (e) road
15. Which of the following would be step III?  
(a) hut for bus all 25 jam road 15 stop 38 96 73 52 46  
(b) for bus all 25 jam road 15 hut 38 stop 96 46 73 52  
(c) hut for bus all jam road 15 stop 38 96 73 52 46 25  
(d) for bus all 25 jam road 15 hut stop 38 46 96 73 52  
(e) None of these

**DIRECTIONS (Q. 16 to 20) :** A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input rearrangement.

**Input :** but 32 71 glory fair south 65 84

**Step I :** south but 32 71 glory fair 65 84

**Step II :** south 84 but 32 71 glory fair 65

**Step III :** south 84 glory but 32 71 fair 65

**Step IV :** south 84 glory 71 but 32 fair 65

**Step V :** south 84 glory 71 fair but 32 65

**Step VI :** south 84 glory 71 fair 65 but 32

and Step VI is the last step of the rearrangement. As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

16. Step III of an input is : year 92 ultra 15 23 strive house 39. How many more steps will be required to complete the rearrangement?  
(a) Three (b) Four (c) Two  
(d) Five (e) None of these
17. Input : any how 49 24 far wide 34 69. Which of the following steps will be the last but one?  
(a) VI (b) VII (c) V  
(d) VIII (e) None of these
18. Step II of an input is : town 74 pair 15 31 nice job 42. Which of the following is definitely the input?  
(a) pair 15 31 town nice job 42 74  
(b) pair 15 town 31 74 nice job 42  
(c) pair 15 town 74 31 nice job 42  
(d) cannot be determined  
(e) None of these
19. Input : play over 49 37 12 match now 81. Which of the following will be step IV?  
(a) play 81 over 49 37 match now  
(b) play 81 over 49 37 12 now  
(c) play 81 over 49 now 37 match 12  
(d) There will be no such step  
(e) None of these
20. Step II of an input is : war 58 box cart 33 49 star 24. Which of the following steps will be the last?  
(a) V (b) VI (c) IV  
(d) VII (e) None of these

**RESPONSE  
GRID**

11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e)  
16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e)



101 SPEED TEST

52

INPUT OUTPUT - 2

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1 to 6) :** A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

**Input** : go now 52 38 17 for again 65

**Step I** : 65 go now 52 38 17 for again

**Step II** : 65 again go now 52 38 17 for

**Step III** : 65 again 52 go now 38 17 for

**Step IV** : 65 again 52 for go now 38 17

**Step V** : 65 again 52 for 38 go now 17

**Step VI** : 65 again 52 for 38 go 17 now

Step VI is the last step of the rearrangement

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

- Input** : show 51 36 new far 81 46 goal  
Which of the following steps will be the last but one?  
(a) VII (b) VIII (c) VI  
(d) V (e) None of these
- Input** : home turf 39 24 86 44 roll over  
Which of the following steps will be the last?  
(a) X (b) IX (c) VIII  
(d) VII (e) None of these
- Step II of an input is : 76 ask 12 32 begin over join 42.  
How many more steps will be required to complete the rearrangement ?  
(a) Four (b) Five (c) Six  
(d) Three (e) None of these
- Step IV of an input is : 58 box 47 dew 15 21 town pot.  
Which of the following steps will be the last?  
(a) VII (b) VI (c) VIII  
(d) IX (e) None of these
- Step III of an input is : 94 car 86 window shut 52 31 house.  
Which of the following is definitely the input?  
(a) 94 car window 86 shut 52 31 house  
(b) 80 window 94 car shut 52 31 house  
(c) car shut window 86 52 31 house 94  
(d) Cannot be determined  
(e) None of these

- Input** : buy win task 52 38 43 door 12. Which of the following will be step IV ?  
(a) 52 buy 43 door 38 task 12 win  
(b) 52 buy 43 door 38 task win 12  
(c) 52 buy 43 door task win 38 12  
(d) There will be no such step  
(e) None of these

**DIRECTIONS (Q. 7 to 12) :** Study the following information carefully and answer the given questions:

A word arrangement machine when given an input line of words and number rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

**Input** : shop 17 table 20 53 oven desk 39

**Step I** : 17 shop table 20 53 oven desk 39

**Step II** : 17 table shop 20 53 oven desk 39

**Step III** : 17 table 20 shop 53 oven desk 39

**Step IV** : 17 table 20 shop 39 53 oven desk

**Step V** : 17 table 20 shop 39 oven 53 desk

and **Step V** is the last step of the rearrangement.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

- Input** : 89 bind 32 goal house 61 12 joy  
How many steps will be required to complete the arrangement?  
(a) Four (b) Five (c) Six  
(d) Seven (e) None of these
- Step II of an input is : 15 yes 62 51 48 talk now gone  
Which of the following will be step VI ?  
(a) 15 yes 48 talk 51 now gone 62  
(b) 15 yes 48 talk 51 62 now gone  
(c) 15 yes 48 talk 51 now 62 gone  
(d) There will be no such step.  
(e) None of these
- Step III of an input is : 21 victory 30 joint 64 47 all gone  
How many steps will be required to complete the rearrangement?  
(a) Three (b) Four (c) Five  
(d) Six (e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e)

10. **Input** : win 92 task 73 59 house range 34  
Which of the following will be step IV of the above input?  
(a) 34 win 59 task 73 range 92 house  
(b) 34 win 92 59 task 73 house range  
(c) 34 win 92 task 73 59 house range  
(d) There will be no such step  
(e) None of these
11. **Input** : save 21 43 78 them early 36 for  
Which of the following steps will be the last but one?  
(a) VI (b) VII (c) VIII  
(d) V (e) None of these
12. **Input** : desire 59 63 all few 38 46 zone  
How many steps will be required to complete the rearrangement?  
(a) Four (b) Five (c) Six  
(d) Seven (e) None of these
- 
- DIRECTIONS (Q. 13 to 20) : Study the following information carefully and answer the given questions:**
- A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.
- Input** : 51 pour 32 start now 23 46 house  
**Step I** : 23 51 pour 32 start now 46 house  
**Step II** : 23 start 51 pour 32 now 46 house  
**Step III** : 23 start 32 51 pour now 46 house  
**Step IV** : 23 start 32 pour 51 now 46 house  
**Step V** : 23 start 32 pour 46 51 now house  
**Step VI** : 23 start 32 pour 46 now 51 house  
and step VI is the last step of the rearrangement
- As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.
13. **Step II** of an input is : 18 task bear cold dish 81 63 31  
How many more steps will be required to complete the rearrangement?  
(a) Three (b) Four (c) Five  
(d) Six (e) None of these
14. **Input** : 72 59 37 go for picnic 24 journey  
How many steps will it take to complete the rearrangement?  
(a) Three (b) Four (c) Five  
(d) Six (e) None of these
15. **Input** : nice flower 24 12 costly height 41 56  
Which of the following will be step III ?  
(a) 12 nice 34 height flower costly 41 56  
(b) 12 nice 34 height 41 flower costly 56  
(c) 12 nice 34 flower costly height 41 56  
(d) 12 nice flower 34 costly height 41 56  
(e) None of these
16. **Step II** of an input is : 16 victory 19 36 53 store lake town.  
Which of the following will be step V ?  
(a) 16 victory 19 town store 36 53 lake  
(b) 16 victory 19 town 36 store 53 lake  
(c) 16 victory 19 town 36 53 store lake  
(d) There will be no such step  
(e) None of these
17. **Step III** of an input is : 15 yes 29 ask for soap 42 37  
Which of the following is definitely the input?  
(a) ask yes 29 15 for soap 42 37  
(b) yes ask 15 29 for soap 42 37  
(c) 29 15 yes ask for soap 42 37  
(d) Cannot be determined  
(e) None of these
18. **Input** : milk pot 18 24 over goal 36 53  
Which of the following steps will be the last but one?  
(a) VI (b) V (c) VII  
(d) VIII (e) None of these
19. **Step III** of an input is : 36 win 44 95 86 ultra box queen  
How many more steps will be required to complete the rearrangement?  
(a) Three (b) Four (c) Five  
(d) Six (e) None of these
20. **Input** : new 22 model 27 pump 38 11 join  
How many steps will be required to complete the rearrangement?  
(a) Four (b) Five (c) Six  
(d) Seven (e) None of these

**RESPONSE  
GRID**

10. (a)(b)(c)(d)(e) 11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e)  
15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e)  
20. (a)(b)(c)(d)(e)



101 SPEED TEST

53

ASSUMPTIONS

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1 to 15) :** In each question below is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumption and decide which of the assumptions is implicit in the statement.

- Give answer (a) if only assumption I is implicit
- Give answer (b) if only assumption II is implicit.
- Give answer (c) if either assumption I or II is implicit.
- Give answer (d) if neither assumption I nor II is implicit.
- Give answer (e) if both assumptions I and II are implicit.

1. **Statement :** Even though the number of sugar factories is increasing at a fast rate in India, we still continue to import it from other countries.  
**Assumptions I :** Even the increased number of factories may not be able to meet the demand of sugar in India  
**II :** The demand for sugar may increase substantially in future.
2. **Statement :** The government announced a heavy compensation package for all the victims of the terrorist attacks.  
**Assumptions I :** Such incidents of terror may not occur in near future.  
**II :** Compensation may mitigate the anger among the citizens against the current government.
3. **Statement :** Many organizations have switched over to online mode of examinations.  
**Assumptions I :** Candidates from all parts of the country may be well-versed using computers.  
**II :** Online mode of examinations helps in recruiting more capable personnel.
4. **Statement :** Government has decided to relocate all the factories from the city with immediate effect to reduce pollution.  
**Assumptions I :** Pollution in the city being caused only because of the factories existing there.  
**II :** People may be able to manage travelling daily to the relocated factories.
5. **Statement :** Gambling through lotteries is banned by the Central Government in all the states with immediate effect.  
**Assumptions I :** This may save innocent citizens from getting cheated of their hard-earned money.  
**II :** The citizens may not gamble in any other way if the lotteries are banned.
6. **Statement :** Many employees of the organisation applied for special sabbatical leave of two years to pursue higher education.

7. **Assumptions I :** The management of the organisation may not grant leave to most of these employees.  
**II :** These employees may be able to complete their education during the sabbatical leave.  
**Statement :** The college administration has instructed all the students to stop using cell phones within the college premises.  
**Assumptions I :** The students may stop using cell phones in the college premises.  
**II :** The students may continue to use cell phones in the college premises.
8. **Statement :** The Govt has decided to levy congestion tax on passengers traveling by air to and from the metro cities.  
**Assumptions I :** The tax so collected may be adequate to meet part of the expenses for providing additional resources to handle huge traffic.  
**II :** Passengers traveling by air to and from these cities may be able to pay extra amount by way of congestion tax.
9. **Statement :** The local citizens group submitted a memorandum to the civic authority for allowing them to convert the vacant plot in the locality into a garden at their own cost.  
**Assumptions I :** The local citizen group may be able to gather enough funds to develop the garden.  
**II :** The civic authority may not accede to the requests of the local citizen group.
10. **Statement :** Most of the private companies have decided against awarding annual increase in the salaries of their employees for the previous year due to the current economic situation.  
**Assumptions I :** Majority of the employees may leave their job to protest against the decision.  
**II :** These companies may announce hike in salaries next year.
11. **Statement :** Mr X started at 9.00 am from his residence to attend a meeting scheduled to be held at 11.00 am and instructed his assistant to meet him at the venue of the meeting and hand over the relevant documents.  
**Assumptions I :** Mr. X may arrive at the meeting place before 11.00 am.  
**II :** Mr. X's assistant may be able to arrive at the venue before commencement of the meeting.
12. **Statement :** The city transport corporation has introduced air-conditioned buses on various routes to attract people travelling to their work places by car and hence reduce congestion on the roads.  
**Assumptions I :** Majority of the people may still prefer to travel to their work places in their own cars.  
**II :** Many people may now opt for these buses for travelling to their work places.

RESPONSE GRID

- |                     |                     |                    |                    |                     |
|---------------------|---------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) |                    |                    |                     |

13. **Statement :** The state govt has announced an amnesty scheme for all the housing societies defaulting on payment of municipal taxes asking these societies to pay upfront six per cent of the dues and regularize their status without any penalty.  
**Assumptions I :** Most of the defaulting housing societies may now opt for the amnesty scheme and pay up their dues.  
**II :** Other housing societies which have been paying their taxes regularly may file case against the govt for discriminatory practices.
14. **Statement :** The railway authority has announced suspension of movements of train on the main track within the city limit for carrying out major repair works of Saturday and Sunday and advised the commuters to plan their journey accordingly.  
**Assumptions I :** The commuters may protest against the decision of the railway authority and may disrupt other transport services.  
**II :** The municipal authority may be able to deploy additional buses during Saturday and Sunday to help the commuters.
15. **Statement :** "If you are a first-class graduate with good communication skills an also have work experience of at least two years in sales-related activities, you are welcome in our organization" - An employment advertisement.  
**Assumptions I :** Many with good communication skills may not respond to the advertisement.  
**II :** All the first-class graduates may possess good communication skills.

**DIRECTIONS (Q. 16 to 20) : In each question below is given a statement followed by three assumptions (A), (B) and (C). An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.**

16. **Statement :** The police authority cordoned off the entire locality for the entire day and stopped all vehicular movement for the visit of a top functionary of the government in view of the threat perception and advised all the residents in the area to limit their movement outside their dwellings.  
 Which of the following assumptions is/are implicit in the above statement?  
 (A) The police personnel may not be able to control the vehicular movement in the locality and may seek help from the armed forces.  
 (B) People living in the locality may move out of their houses for the day to avoid inconvenience.  
 (C) The Govt functionary may request the police authority to lift the ban on the movement of residents of the locality outside their dwellings.  
 (a) None of implicit (b) Only (A) is implicit  
 (c) Only (B) is implicit (d) Only (C) is implicit  
 (e) Only (B) and (C) are implicit
17. **Statement :** The apex body controlling universities in the country has decided to revise the syllabus of all the technical course to make them focused towards the present needs of the industry, thereby making the technical graduates more employable that they are at present.  
 Which of the following assumptions is/are implicit in the above statement?

- (A) Technical colleges affiliated to different universities may not welcome the apex body's decision and may continue with the same syllabus as at present.  
 (B) The industry may welcome the decision of the apex body and scale up their hiring from these colleges.  
 (C) The Govt may not allow the apex body to implement its decision in all the colleges as it may lead to chaos.  
 (a) None of implicit (b) Only (A) is implicit  
 (c) Only (B) is implicit (d) Only (C) is implicit  
 (e) Only (A) and (B) are implicit
18. **Statement :** Govt has urged all the citizens to use electronic media for carrying out their daily activities, whenever possible, instead of using paper as the manufacture of paper requires the cutting down of a large number of trees causing severe damage to the ecosystem.  
 Which of the following assumptions is/are implicit in the above statement?  
 (A) Most people may be capable of using electronic media to carry out various routines.  
 (B) Most people may have access to electronic media for carrying out their daily routine activities.  
 (C) People at large may reject the govt's appeal and continue using paper as before.  
 (a) Only (A) is implicit  
 (b) Only (B) is implicit  
 (c) Only (A) and (B) are implicit  
 (d) Only (C) is implicit  
 (e) None of these
19. **Statement :** The Govt has decided to auction construction of highway to private entities in several blocks across the country on build-operate-transfer basis.  
 Which of the following assumptions is/are implicit in the above statement?  
 (A) An adequate number of private entities may not respond to the Government's auction notification.  
 (B) Many private entities in the country are capable of constructing highways within a reasonable time.  
 (C) The Govt's proposal of build-operate-transfer may financially benefit the private entities.  
 (a) Only (A) and (B) are implicit  
 (b) Only (B) and (C) are implicit  
 (c) Only (B) is implicit  
 (d) Only (A) and (C) are implicit  
 (e) None of these
20. **Statement :** The airlines have requested all their bona fide passengers to check the status of flight operations before leaving their homes as heavy fog is causing immense problems to normal flight operations.  
 Which of the following assumptions is/are implicit in the above statement?  
 (A) Majority of the air passengers may check the flight status before starting their journey to the airport.  
 (B) The Govt may take serious objection to the notice issued by the airline company.  
 (C) Majority of the passengers may cancel their tickets and postpone their journey till the situation becomes normal.  
 (a) None of implicit (b) Only (A) is implicit  
 (c) Only (B) is implicit (d) Only (C) is implicit  
 (e) Only (A) and (C) are implicit

<b>RESPONSE GRID</b>	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)
	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)	



101 SPEED TEST

54

com

## STATEMENT AND CONCLUSIONS

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1 to 18) :** In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

**Give answer (a)** if only conclusion I follows.

**Give answer (b)** if only conclusion II follows.

**Give answer (c)** if either I or II follows.

**Give answer (d)** if neither I nor II follows.

**Give answer (e)** if both I and II follows.

1. **Statement :** Although we have rating agencies like Crisil, ICRA, there is demand to have a separate rating agency for IT Companies to protect investors.

**Conclusions :**

- I: Assessment of financial worth of IT Companies calls for separate set of skills, insight and competencies.  
II: Now the investors investing in I. T. Companies will get protection of their investment.

2. **Statement :** Company "Y" will improve the manufacturing facilities for the production of shaving kits as a result of which capacity would increase and cost would be reduced – A spokesperson of the Company "Y".

**Conclusions :**

- I: The products of Company "Y" will complete the market norms in the quality and cost factor.  
II: There will be demand of shaving kits of Company "Y"?

3. **Statement :** During 1997-98 the total loss incurred by the 111 Public Sector Units was to the tune of ₹ 6809 crore, which was converted into paid capitals by the Government of its total investment of ₹ 5129 crore.

**Conclusions :**

- I: The Government is left with only one option that is to privatise these units.  
II: The Government did not take care in the matter of investments in these public sector units.

4. **Statement :** Population increase coupled with depleting resources is going to be the scenario of many developing countries in days to come.

**Conclusions :**

- I: The population of developing countries will not continue to increase in future.  
II: It will be very difficult for the governments of developing countries to provide its people decent quality of life.

5. **Statement :** Mr. X is one of the probable candidates shortlisted for the post of Director of K. L. M. Institute.

**Conclusions :**

- I: Mr. X will be selected as Director of K. L. M. Institute.  
II: Mr. X will not be selected as Director of K. L. M. Institute.

6. **Statement :** 'We follow some of the best and effective teaching learning practices used by leading institutes all over the world'. — A statement of professor of MN Institute.

**Conclusions :**

- I. The MN Institute is one of the leading institutes of the world.  
II. Whatever is being followed by world's leading institutes will definitely be good and useful.

7. **Statement :** In the absence of national health insurance or social security cover, a person with limited resources has to depend on government hospitals, which are crowded, overburdened and understaffed.

**Conclusions :**

- I. National health insurance is meant only for the affluent sections of society.  
II. The government hospitals provide treatment on nominal charges or free.

8. **Statement :** We do not need today in India extraordinary specialists but those trained ordinary doctors who are dedicated to their profession.

**Conclusions :**

- I. We should promote medical profession with dedicated ordinary doctors rather than promoting high specialised medical education.  
II. Extraordinary specialists are not dedicated to their profession.

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e)

9. **Statement :**  
 “The Government will review the present policy of the diesel price in view of further spurt in the international oil prices”  
 — A spokesman of the Government.  
**Conclusions :**  
**I.** The Government will increase the price of the diesel after the imminent spurt in the international oil prices.  
**II.** The Government will not increase the price of the diesel even after the imminent spurt in the international oil prices.
10. **Statement :**  
 Vegetable prices are soaring in the market.  
**Conclusions :**  
**I.** Vegetables are becoming a rare commodity.  
**II.** People cannot eat vegetables.
11. **Statement :**  
 Being from a business family, Chandan was apparently convinced by his parents and other family members to join the family trade.  
**Conclusions :**  
**I.** People should take up their family profession so that family prospers.  
**II.** It is necessary to keep in family members happy by choosing family’s business.
12. **Statement :**  
 Global ecological issues have eclipsed local environmental problems which are being faced by the poor societies.  
**Conclusions :**  
**I.** Poor societies always have to suffer because of their poverty.  
**II.** Global ecological issues are not so important. Rich societies can bear with it.
13. **Statements :**  
 Of the ten fishermen caught in a storm, nine managed to return to the shore.  
 Praveen has not yet returned after four days.  
**Conclusions :**  
**I.** Praveen got killed in the storm.  
**II.** Praveen has survived the storm.
14. **Statements :**  
 Now you don’t need an import licence to own a VCR.  
**Conclusions :**  
**I.** VCRs are now manufactured indigenously.  
**II.** VCRs are now freely permitted to be imported.
15. **Statements :**  
 Just about everyone in Germany has been on a diet at one time or the other and millions of them have learned that the weight they lose is all too easily regained.  
 Still’ despite their frustration, few question the wisdom of dieting.  
**Conclusions :**  
**I.** Germany should stop dieting.  
**II.** Germans do not learn from experience.
16. **Statements :**  
 A study of planning commission reveals boom in revenues. However, this has been of little avail owing to soaring expenditure. In the event, there has been a high dose of deficit financing, leading to marked rise in prices.  
 Large financial outlays year after year had little impact on the standard of living.  
**Conclusions :**  
**I.** A boom in revenues leads to soar in prices.  
**II.** Large financial outlays should be avoided.
17. **Statements :**  
 The average number of students per teacher is 50 in the urban area whereas it is 60 in rural areas. The national average is 55.  
**Conclusions :**  
**I.** The student-teacher ratio in the rural areas is higher than in the urban areas.  
**II.** More students study with the same teacher in the rural areas as compared to those in the urban areas.
18. **Statement :**  
 Morning walks are good for health.  
**Conclusions :**  
**I.** All healthy people go for morning walks.  
**II.** Evening walks are harmful.
19. **Statement :** The cost of manufacturing cars in state A is 30 per cent less than the cost of manufacturing cars in state B. After transportation fee for the differential distances of states A and B and the interstate taxes, it is cheaper to manufacture cars in state B than in state A for selling these cars in State C. Which of the following supports the conclusion draw in the above statement?  
 (a) The cost of transportation from state A to state C is more than 30 per cent of the production cost.  
 (b) The production cost of cars in state B is lower in comparison to state A.  
 (c) Only entry tax at state C is more for the production originating in state A.  
 (d) Entry tax at state C is more for the products originating in state B.  
 (e) The total of transportation cost of cars from state B to state C and entry tax of cars at state C is less than 30 per cent of the production cost of cars in state B.
20. **Statement :** There was a slow decline in the number of patients with flu-like symptoms visiting various health facilities in the city during the last fortnight. Which of the following substantiates the fact mentioned in the above statement?  
 (a) Majority of the people suffering from flu visit the health facilities in the city.  
 (b) There has been a continuous increase in the sale of medicines for curing flu in the city limits.  
 (c) People have started visiting the crowded places like malls and cinema halls during the last fortnight after a cautioned gap of one month.  
 (d) There is a sudden increase in the number of deaths caused by flu-like symptoms followed by respiratory complications.  
 (e) None of these

<b>RESPONSE GRID</b>	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)
	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)
	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)			





101 SPEED TEST

55

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## COURSE OF ACTION

Max. Marks : 20

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q.1-8) :** In each question below is given a statement followed by three courses of action numbered (A), (B) and (C). A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) for pursuing.

1. **Statement :** A heavy unseasonal downpour during the last two days has paralysed the normal life in the state in which five persons were killed but this has provided a huge relief to the problem of acute water crisis in the state.

**Courses of action:**

- (A) The state government should set up a committee to review the alarming situation.  
 (B) The state government should immediately remove all the restrictions on use of potable water in all the major cities in the state.  
 (C) The state government should send relief supplies to all the affected areas in the state.  
 (a) None (b) Only (A)  
 (c) Only (B) and (C) (d) Only (C)  
 (e) All (A), (B) and (C)

2. **Statement :** A large private bank has decided to retrench one-third of its employees in view of the huge losses incurred by it during the past three quarters.

**Courses of action:**

- (A) The Govt should issue a notification to general public to immediately stop all transactions with the bank.  
 (B) The Govt should direct the bank to refrain from retrenching its employees.  
 (C) The Govt should ask the central bank of the country to initiate an enquiry into the bank's activities and submit its report.  
 (a) None (b) Only (A) (c) Only (B)  
 (d) Only (C) (e) All (A) and (C)

3. **Statement :** Many political activities have decided to state demonstrations and block traffic movement in the city during peak hours to protest against the steep rise in prices of essential commodities.

**Courses of action:**

- (A) The Govt should immediately ban all forms of agitations in the country.  
 (B) The police authority of the city should deploy additional forces all over the city to help traffic movement in the city.  
 (C) The state administration should carry out preventive arrests of the known criminals staying in the city  
 (a) Only (A) (b) Only (B)  
 (c) Only (C) (d) Only (A) and (B)  
 (e) None of these

4. **Statement :** The school dropout rate in many districts in the state has increased sharply during the last few years as the parents of these children make them work in the fields owned by others to earn enough for them to least one meal a day.

**Courses of action:**

- (A) The Govt should put up a mechanism to provide food grains to the poor people in these districts through public distribution system to encourage the parents to send their wards to school.  
 (B) The Govt should close down some of these schools in the district and deploy the teachers of these schools to nearby schools and also ask remaining students to join these schools.  
 (C) Govt should issue arrest warrants for all the parents who force their children to work in fields instead of attending classes.  
 (a) Only (A) (b) Only (B) (c) Only (C)  
 (d) Only (A) and (B) (e) None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e)

5. **Statement :** One aspirant was killed due to stampede while participating in a recruitment drive of police constables.

**Courses of action :**

- (A) The officials in charge of the recruitment process should immediately be suspended.
- (B) A team of officials should be asked to find out the circumstances which led to the death of the aspirant and submit its report within a week.
- (C) The Govt should ask the home department to stagger the number of aspirants over more number of days to avoid such incidents in future.
- (a) Only (A)                      (b) Only (B)
- (c) Only (C)                      (d) Only (B) and (C)
- (e) None of these

6. **Statement :** Many students of the local school fell ill for the fourth time in a row in the last six months after consuming food prepared by the school canteen.

**Courses of action :**

- A: The school management should immediately terminate the contract of the canteen and ask for compensation.
- B: The school management should advise all the students not to eat food articles from the canteen.
- C: The owner of the canteen should immediately be arrested for negligence.
- (a) None follows                (b) Only B follows
- (c) Only C follows              (d) Only A and B follows
- (e) Only B and C follows

7. **Statement :** Many school buses have fitted CNG kit without observing the safety guidelines properly. This results into some instances of these buses catching fire due to short circuit and endangering the lives of the school children.

**Courses of action :**

- A: The regional transport authority should immediately carry out checks of all the school buses fitted with CNG kit.
- B: The management of all the schools should stop hiring buses fitted with CNG kit.
- C : The govt should issue a notification banning school buses for the use of CNG kit.
- (a) Only A follows              (b) Only B follows
- (c) Only C follows              (d) Only A and C follows
- (e) None of these

8. **Statement :** A sudden cloud burst over the island city resulted into unpredicted rainfall causing a flood-like situation in the entire area. A large number of people were caught unaware and were stranded on the road.

**Courses of action :**

- A: The local administration should immediately put in place an action plan for avoiding such a situation in future.
- B: The local administration should immediately deploy personnel to help the stranded people to move to safer places.
- C: The local administration should advise all the citizens not to venture out on the road till the situation improves.
- (a) Only A follows              (b) Only B follows
- (c) Only C follows              (d) Both B and C follows
- (e) All A, B and C follows

**DIRECTIONS (Q.9-30) :** In each question below is given a statement followed by two courses of action numbered I and II. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) for pursuing.

**Give answer (a)** if only course of action I follows.

**Give answer (b)** if only course of action II follows.

**Give answer (c)** if either course of action I or II follows.

**Give answer (d)** if neither course of action I nor II follows.

**Give answer (e)** if both courses of action I and II follow.

9. **Statement :** There have been sporadic cases of stone throwing and damaging vehicles in the locality during the day following altercation between two local youth clubs last night.

**Courses of action :**

- I: The local police administration should arrest all those who are caught committing these acts.
- II: The local police administration should call a meeting of office bearers of both the clubs of the local to bring the situation under control.

10. **Statement :** A huge truck overturned on the middle of the main road and blocked most part of the road, causing a huge traffic jam.  
**Courses of action :**  
 I: The traffic department should immediately deploy its personnel to divert traffic through other roads.  
 II: The traffic department should immediately send men and equipment to move the truck and clear the road.
11. **Statement :** Some workers of the company making diamond jewellery were caught while there were leaving the premises as they were trying to smuggle small pieces of diamonds hidden in their purses.  
**Courses of action :**  
 I: The management of the company should immediately put on hold all activities in the premises till a fool-proof security system is in place.  
 II: The belongings of all the workers should thoroughly be searched before they leave the premises of the company.
12. **Statement :** A huge tidal wave swept away many fishing boats and hutments of the fishermen living along the coastline.  
**Courses of action :**  
 I: The fishermen should henceforth be restrained from constructing their huts along the coast line.  
 II: The local administration should send a team of officials to assess the extent of damage and suggest remedial measures.
13. **Statement :** A large number of invitees who attended the marriage function fell ill due to food poisoning and were rushed to various hospitals located in the area.  
**Courses of action :**  
 I: The government should ban such marriage functions till further notice.  
 II: The local hospitals should be advised by the government to provide best services to the affected people.
14. **Statement :** An increasing number of farmers prefer to avail loans from local moneylenders instead of the banks owing to complicated paperwork involved in banks.  
**Courses of action :**  
 I: Local moneylenders who charge interest rates lower than the banks should be punished.  
 II: Banks should simplify the procedure to avail of loans so as to suit the farmers.
15. **Statement :** A major river in the city was reduced to a polluted and dirty canal after tonnes of sewage made way into it over the years.  
**Courses of action :**  
 I: All those who dumped garbage and sewage into the river should be penalized.  
 II: The government should modify the sewage system and find an alternate way to dump the city's waste.
16. **Statement :** Water table in most parts of the State has gone down to such a level that its extraction for irrigation purposes is not economical any more.  
**Courses of action :**  
 I: Extraction of ground water for any purpose in the State should be banned for some time in order to replenish the water table.  
 II: The Government should make provisions for alternative methods of irrigation so that the farmers are not compelled to use ground water.
17. **Statement :** A university librarian reported increased cases of theft of books from the library.  
**Courses of action :**  
 I: Stricter security arrangements should be put in place in order to prevent such incidents.  
 II: All the students in the university should be made to pay a hefty fine in order to replace the lost books.
18. **Statement :** Indigenous tribes living near Amazon forests are cutting down trees to cover their basic needs, thus severely affecting the ecological balance in the area.  
**Courses of action :**  
 I: All the tribes living near the Amazon rain forests should be forced to shift to urban areas of the country.  
 II: The tribes should be allowed to continue doing so as they cut down trees for their basic needs and not for commercial purposes.
19. **Statement :** Severe drought is reported to have set in several parts of the country.  
**Courses of action :**  
 I: Govt. should immediately make arrangement for providing financial assistance to those affected.  
 II: Food, water and fodder should immediately be sent to all these areas to save the people and cattle.

20. **Statement :** A large number of lower ranked politicians are murdered by anti-social elements in City A.

**Courses of action :**

- I: All those in the city with criminal records should immediately be arrested.
- II: The city police should keep a close vigil on the movements of anti-social elements so as to prevent future attacks.

21. **Statement :** It is reported that though Vitamin E present in fresh fruits and fresh vegetables is beneficial for human body, capsuled Vitamin E does not have same effect on human body.

**Courses of action :**

- I: The sale of capsuled Vitamin E should be banned.
- II: People should be encouraged to take fresh fruits and fresh vegetables to meet the body requirement of Vitamin E.

22. **Statement :** India has been continuously experiencing military threats from its neighbouring countries.

**Courses of action :**

- I: India should engage into an all out war to stop the nagging threats.
- II: India should get the neighbours into a serious dialogue to reduce the tension at its borders.

23. **Statement :** India has now been recognised by the Western World as a vast resource of knowledge and are eager to use the same.

**Courses of action :**

- I: India should exploit this opportunity to hasten its economic growth.
- II: India should bargain effectively with the Western World and become a super power in South Asia.

24. **Statement :** It is estimated that about twenty lakhs people will visit the city during the ensuring festival.

**Courses of action :**

- I: The civic authority should make adequate arrangements to tackle the situation.
- II: All the hospitals in the city should be put on high alert in case on any eventuality.

25. **Statement :** Drinking water supply to many parts of the town has been disrupted due to loss of water because of leakage in pipes supplying water.

**Courses of action :**

- I: The government should order an enquiry into the matter.
- II: The civic body should set up a fact-finding team to assess the damage and take effective steps.

26. **Statement :** There is an alarming increase in the number of people suffering from malaria in many parts of the city.

**Courses of action :**

- I: The municipal corporation has advised all the govt hospitals to store adequate supply of malaria drugs.
- II: The municipal corporation has urged people to use mosquito repellants and keep their premises clean.

27. **Statement :** Many people have encroached upon govt. property and built their houses and business establishments.

**Courses of action :**

- I: The government should take immediate steps to remove all unauthorised constructions on govt land.
- II: All the encroachers should immediately be put behind bars and also be slapped with a hefty fine.

28. **Statement :** The meteorological department has predicted normal rainfall throughout the country during the current monsoon.

**Courses of action :**

- I: The govt should reduce the procurement price of foodgrains for the current year.
- II: The govt should reduce subsidy on fertilizers for the current year.

29. **Statement :** The dolphin population in India has been decreasing sharply over the past few years.

**Courses of action:**

- I. Dolphins should be declared an endangered species and bred in aquariums or protected areas.
- II. Locals should be enlisted to protect dolphins.

30. **Statement :** Cell phone users have found that tariff plans are not as attractive as promoted by telecom companies and complained to regulatory authority about the same.

**Courses of action:**

- I. The regulatory authority should direct telecom compenies to be trasparent on the tariff structure of all plans.
- II. The government should restrict the number of telecom companies operating in the country.

<b>RESPONSE GRID</b>	20. (a) (b) (c) (d) (e)	21. (a) (b) (c) (d) (e)	22. (a) (b) (c) (d) (e)	23. (a) (b) (c) (d) (e)	24. (a) (b) (c) (d) (e)
	25. (a) (b) (c) (d) (e)	26. (a) (b) (c) (d) (e)	27. (a) (b) (c) (d) (e)	28. (a) (b) (c) (d) (e)	29. (a) (b) (c) (d) (e)
	30. (a) (b) (c) (d) (e)				



101 SPEED TEST

56

## CAUSE AND EFFECT

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1 to 28) :** Below in each question are given two statements (A) and (B). These statements may be either independent causes or may be effects of independent causes or of a common cause. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following answer choices correctly depicts the relationship between these two statements.

**Give answer (a)** if statement (A) is the cause and statement (B) is its effect.

**Give answer (b)** if statement (B) is the cause and statement (A) is its effect.

**Give answer (c)** if both the statements (A) and (B) are independent causes.

**Give answer (d)** if both the statements (A) and (B) are effects of independent causes.

**Give answer (e)** if both the statements (A) and (B) are effects of some common cause.

1. **A.** State Govt has ordered immediate ban on airing of certain movie channels on television.  
**B.** A few social activities have come together and demanded ban on telecasting 'Adult' movies on television.
2. **A.** Employment scenario in the country has remarkably improved recently.  
**B.** The number of prospective job-seekers going abroad has increased recently.
3. **A.** Government has tightened security checks at all important places and also at various public places.  
**B.** Incidences of terrorist attacks are increasing day by day.
4. **A.** The high court has fixed a time limit for repairing all the roads in the city.  
**B.** Road development authorities in the city are carrying out road repair work on an urgent basis.
5. **A.** There is an outbreak of several epidemics in the country.  
**B.** There was a worst flood situation ever experienced in the past in most parts of the country.
6. **A.** The average day temperature of the city has increased by about 2 degrees in the current year over the average of past ten years.  
**B.** More people living in rural areas of the state have started migrating to the urban areas in comparison with the earlier year.
7. **A.** Most of the shopkeepers in the locality closed their shops for the second continuous day.  
**B.** Two groups of people living in the locality have been fighting with each other with bricks and stones, forcing people to stay indoors.
8. **A.** The Govt has decided to increase the prices of LPG cylinders with immediate effect.  
**B.** The Govt has decided to increase the prices of kerosene with immediate effect.
9. **A.** A cyclonic storm is expected to hit the coastline in the state during the next 48 hours.  
**B.** Warning has been issued that heavy rains are expected in the coastal region in the state during the next 48 hours.
10. **A.** Majority of the first year students of the engineering college failed in Mathematics in the semester examination.  
**B.** The college authority terminated the contract of the Professor who taught mathematics to the first-year students.
11. **A.** The committee appointed by the Government on the fee structure of the professional courses has drastically reduced the fees of various courses in comparison to those charged in the last year.  
**B.** The parents of aspiring students seeking admission to professional courses had launched a severe agitation protesting against the high fees charged by the professional institutes and the admission process was delayed considerably.
12. **A.** The farmers have decided against selling their Kharif crops to the Government agencies.  
**B.** The Government has reduced the procurement price of Kharif crops starting from last month to the next six months.

RESPONSE  
GRID

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)    9. (a)(b)(c)(d)(e)    10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e)    12. (a)(b)(c)(d)(e)

13. A. The Reserve Bank of India has recently put restrictions on few small banks in the country.  
B. The small banks in the private and co-operative sector in India are not a position to withstand the competitions of the bigger in the public sector.
14. A. The performance of India sportspersons in the recently held Olympics could not reach the level of expectation the country had on them.  
B. The performance of Indian sportspersons in the last Asian games was far better than any previous games.
15. A. Large number of people living in the low lying areas have been evacuated during the last few days to safer places.  
B. The Government has rushed in relief supplies to the people living in the affected areas.
16. A. Many schools have banned the sale of fast food in their premises.  
B. Obesity in youngsters has been linked to their poor eating habits.
17. A. The share prices are touching all all-time low.  
B. Most of the organizations have been grounding or terminating employees and undergoing cost-cutting exercises wherever possible.
18. A. A substantial increase in unhealthy competition has been observed among the students.  
B. A rise of 23% is reported every year in the cases of suicide after declaration of grade 10th and 12th examination results.
19. A. The glaciers at the poles of the earth are melting at a fast rate.  
B. In recent times there has been a substantial increase in the incidents of earthquakes and volcanic eruptions.
20. A. Though mobile phones find a good number of users in rural India, computers and Internet still remain a distant dream.  
B. In the recent past there has been a large-scale migration from the rural parts of India to the urban sectors.
21. A. There has been a continuous increase in average temperature during winter in many parts of the country over the past few years.  
B. There has been significant changes in the wind pattern across the country over the last few years.
22. A. The conditions of all the major roads in the city have deteriorated causing hardship to motorists.  
B. The municipal authority has sanctioned significant amount to repair all the major roads in the city.
23. A. The BPO sector has laid off a large number of employees in the recent months.  
B. Very few projects are now being outsourced to BPO sector.
24. A. There has been sharp decline in sales of passenger cars during the last few months.  
B. Many finance companies have announced attractive schemes of car loans with moderate interest rate.
25. A. All the airlines companies in India have increased the air fares in all routes with immediate effect.  
B. There has been substantial reduction in aviation fuel prices in India during the past few weeks.
26. A. Computer education has been made compulsory for all the classes by many schools.  
B. The current job market prefers computer-literate workforce.
27. A. The standard of education in evening college of the State has been deteriorating.  
B. The standard of school education has been fast deteriorating in the State.
28. A. All domestic airlines increased the fares in all sectors with immediate effect.  
B. Railways increased the fare of all its classes with immediate effect.
29. **Statement :** Majority of the employees of the ailing organisation opted for voluntary retirement scheme and left the organisation with all their retirement benefits within a fortnight of launching the scheme.  
Which of the following can be a **probable cause** of the above effect?  
(a) The company has been making huge losses for the past five years and is unable to pay salary to its employees in time.  
(b) The management of the company made huge personal gains through unlawful activities.  
(c) One of the competitors of the company went bankrupt last year.  
(d) The company owns large tracts of land in the state which will fetch huge sum to its owners.  
(e) None of these
30. **Statement :** The Govt has recently increased its taxes on petrol and diesel by about 10 per cent.  
Which of the following can be a **possible effect** cause of the above cause?  
(a) The petroleum companies will reduce the prices of petrol and diesel by about 10 per cent.  
(b) The petroleum companies will increase the prices of petrol and diesel by about 10 per cent.  
(c) The petroleum companies will increase the prices of petrol and diesel by about 5 per cent.  
(d) The petrol pumps will stop selling petrol and diesel till the taxes are rolled back by the Govt.  
(e) None of these

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 13. (a) (b) (c) (d) (e) | 14. (a) (b) (c) (d) (e) | 15. (a) (b) (c) (d) (e) | 16. (a) (b) (c) (d) (e) | 17. (a) (b) (c) (d) (e) |
| 18. (a) (b) (c) (d) (e) | 19. (a) (b) (c) (d) (e) | 20. (a) (b) (c) (d) (e) | 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) |
| 23. (a) (b) (c) (d) (e) | 24. (a) (b) (c) (d) (e) | 25. (a) (b) (c) (d) (e) | 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) |
| 28. (a) (b) (c) (d) (e) | 29. (a) (b) (c) (d) (e) | 30. (a) (b) (c) (d) (e) |                         |                         |



**NON-VERBAL REASONING - I**

Max. Marks : 15

No. of Qs. 15

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1 to 5):** In each of the questions given below which one of the five Answer Figures on the right should come after the Problem Figures on the left, if the sequence were continued?

**Problem Figures**

**Answer Figures**

1.

□	S	☆	C	O	△	B	☆	△	E										
△	E	E	△	B	□	K	E	□	S										
C	☆	S	□	K	L	C	S	L	O										
O	B	K	L	L	O	B	K	C	☆	E	S	O	△	□	L	☆	B	K	C

B	S	O	□	L	O	O	L	□	B										
K	O	S	L	S	□	S	□	☆	K										
C	☆	E	△	△	E	E	△	L	C										
E	△	□	L	C	☆	B	K	C	☆	B	K	C	☆	B	K	△	E	S	O

(a) (b) (c) (d) (e)

2.

C	C	C	C	U	U	C	C	O	O	U	U	U	U	U	U	C	C	U	U
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

U	U	C	C	C	C	U	U	C	C	O	O	U	U	U	U	U	U	C	C
U	U	O	O	C	C	O	O	C	C	U	U	U	U	U	U	U	U	O	O
O	O	U	U	C	C	O	O	C	C	U	U	U	U	U	U	U	U	O	O
C	C	U	U	U	U	C	C	O	O	C	C	O	O	C	C	U	U	C	C

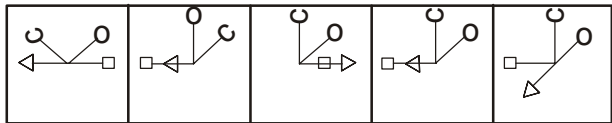
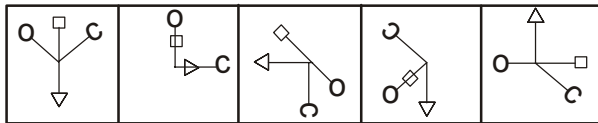
(a) (b) (c) (d) (e)

3.



(a) (b) (c) (d) (e)

4.



(a) (b) (c) (d) (e)

5.

=HOLE	K O H E L	E L K H	L E C H	C □ L ☆ H
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S	L	H	☆	S	L	H	☆	S	L	□	H	☆	S	L	☆	H	□	C	L	S	S	□	L	H	☆
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(a) (b) (c) (d) (e)

RESPONSE GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)

**Directions (Qs. 6 to 10) :** In each of the following questions a series begins with an unnumbered figure on the extreme left. One and only one of the five lettered figures in the series does not fit into the series. The two unlabelled figures, one each on the extreme left and the extreme right, fit into the series. You have to take as many aspects into account as possible of the figures in the series and find out the one and only one of the five lettered figures which does not fit into the series. The letter of that figure is the answer.

6.

(a)	(b)	(c)	(d)	(e)		

7.

(a)	(b)	(c)	(d)	(e)		

8.

(a)	(b)	(c)	(d)	(e)		

9.

(a)	(b)	(c)	(d)	(e)		

10.

(a)	(b)	(c)	(d)	(e)		

**Directions (Qs. 11-15) :** In each of the questions given below which one of the five answer figures on the bottom should come after the problem figures on the top if the sequence were continued?

11. Problem Figures

(a)	(b)	(c)	(d)	(e)	

Answer Figures

(a)	(b)	(c)	(d)	(e)

12. Problem Figures

--	--	--	--	--

Answer Figures

(a)	(b)	(c)	(d)	(e)

13. Problem Figures

--	--	--	--	--

Answer Figures

(a)	(b)	(c)	(d)	(e)

14. Problem Figures

--	--	--	--	--

Answer Figures

(a)	(b)	(c)	(d)	(e)

15. Problem Figures

--	--	--	--	--

Answer Figures

(a)	(b)	(c)	(d)	(e)

<b>RESPONSE GRID</b>	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)





**NON-VERBAL REASONING - II**

Max. Marks : 30

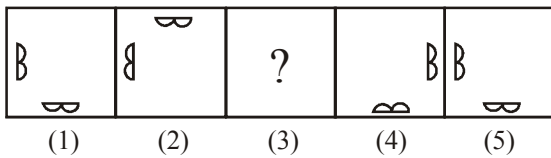
No. of Qs. 30

Time : 20 min.

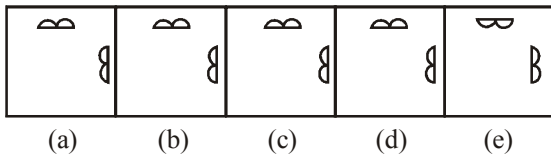
Date : ...../...../.....

**Directions (Qs. 1 to 5):** In each of the questions, there are two sets of figures. The figures on upper side are problem figures marked by letters (1), (2), (3), (4) and (5), and on the bottom side are answer figures marked by numbers (a), (b), (c), (d) and (e). A series is established, if one of the five answer figures is placed in place of the (?) sign in the problem figures. That figure is your answer.

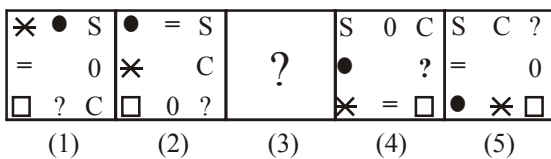
**1. Problem Figures**



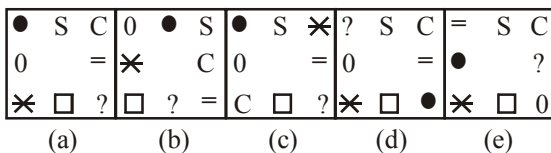
**Answer Figures**



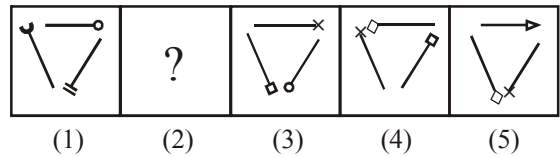
**2. Problem Figures**



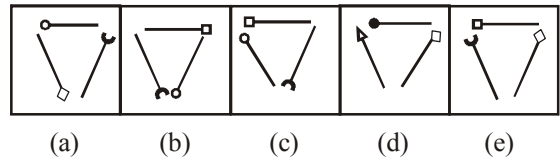
**Answer Figures**



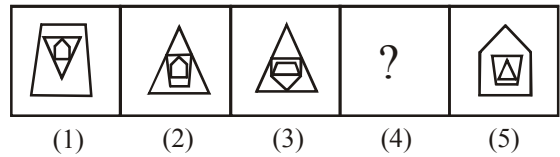
**3. Problem Figures**



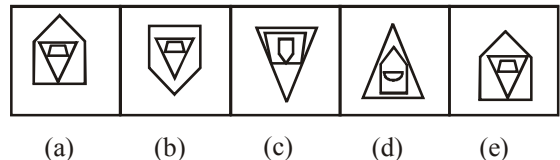
**Answer Figures**



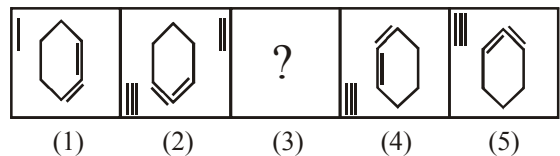
**4. Problem Figures**



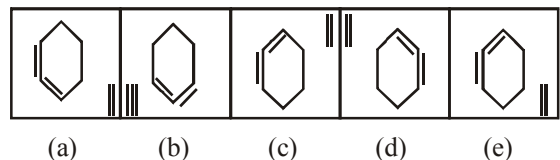
**Answer Figures**



**5. Problem Figures**



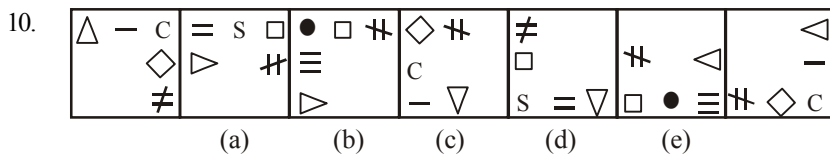
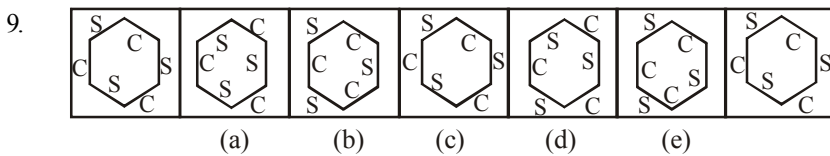
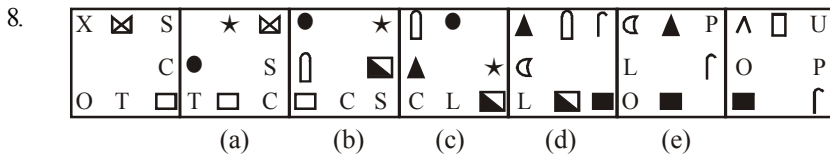
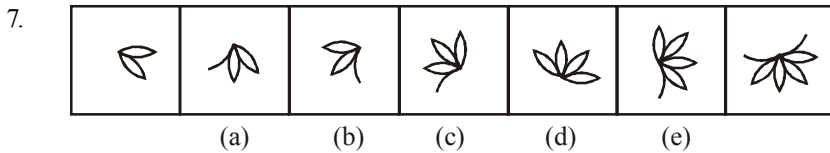
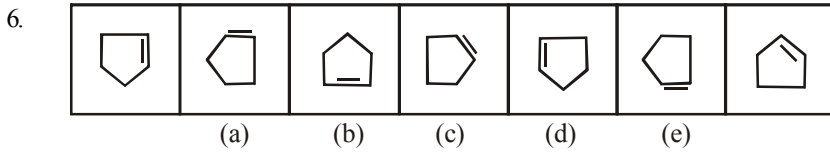
**Answer Figures**



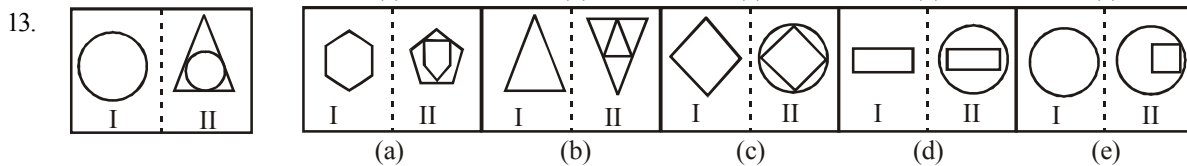
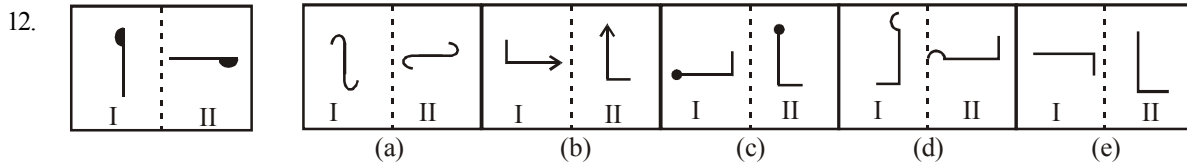
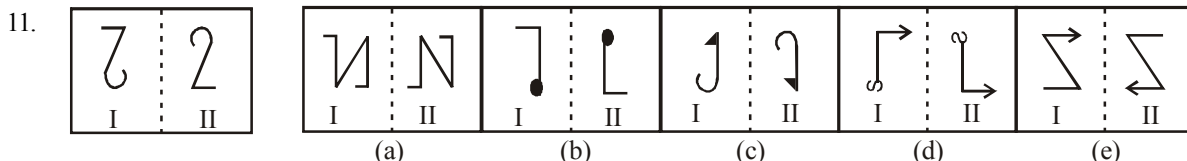
**RESPONSE GRID**

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)

**Directions (Qs. 6 to 10):** In each of the following questions series beings with unlabelled figure on the extreme left. One and only one of the five lettered figures in the series does not fit into the series. The two unlabelled figures one each one the extreme left and the extreme right fit into the series. You have to take as many aspects into account as possible of the figure sin the series and find out the one and only one of the five lettered figures which does not fit into the series. The letter of that figure is the answer.



**Directions (Qs. 11 to 15):** In each of the following questions, a related pair of figures is followed by five lettered pairs of figures. Select the pair that has relationship similar to that in the question figure. The best answer is to be selected from a group of fairly close choices.



<b>RESPONSE GRID</b>	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)		

14.

(a)

(b)

(c)

(d)

(e)

15.

(a)

(b)

(c)

(d)

(e)

**Directions (Qs. 16 to 20):** In each of the following questions, a related pair of figures (unnumbered) is followed by five lettered pairs of figures. Out of these five, four have relationship similar to that in the question figure. Only one pair of figures does not have similar relationship. Select that pair of figures which does not have a relationship similar to that in the question figure. The letter of that pair is your answer.

16.

(a)

(b)

(c)

(d)

(e)

17.

(a)

(b)

(c)

(d)

(e)

18.

(a)

(b)

(c)

(d)

(e)

19.

(a)

(b)

(c)

(d)

(e)

20.

(a)

(b)

(c)

(d)

(e)

**Directions (Qs. 21 to 25):** In each of the questions given below, which one of the five Answer Figures on the right should come after the Problem Figures on the left, if the sequence were continued?

21. **Problem figures**

**Answer figures**

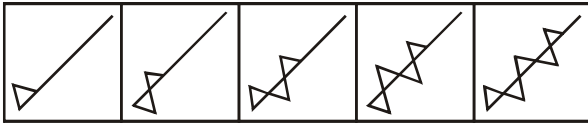
22. **Problem figures**

**Answer figures**

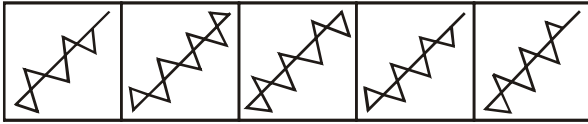
<b>RESPONSE GRID</b>	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)
	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)	21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	

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23. Problem figures

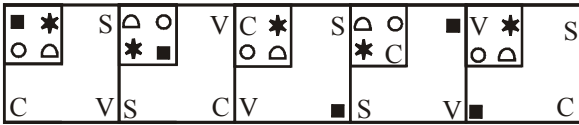


Answer figures

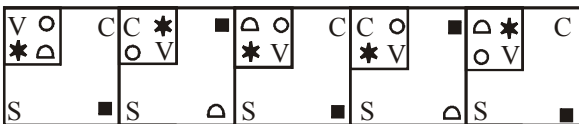


(a) (b) (c) (d) (e)

24. Problem figures

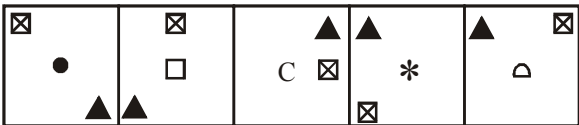


Answer figures

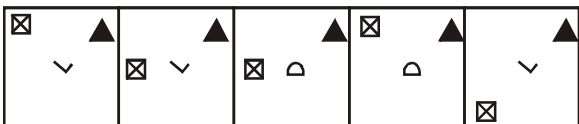


(a) (b) (c) (d) (e)

25. Problem figures



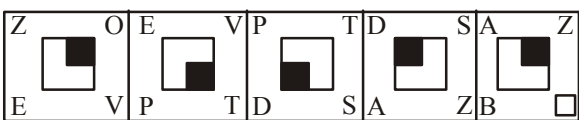
Answer figures



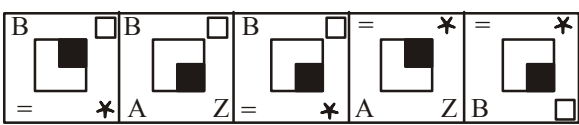
(a) (b) (c) (d) (e)

**Directions (Qs. 26-30):** In each of the questions given below which one of the following five answer figures should come after the problem figures, if the sequence were continued?

26. Problem Figures

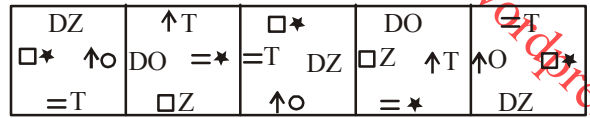


Answer Figures

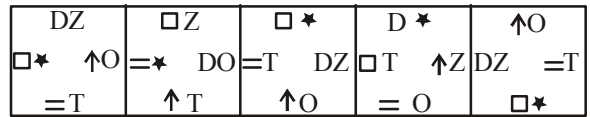


(a) (b) (c) (d) (e)

27. Problem Figures

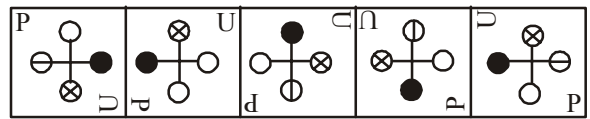


Answer Figures

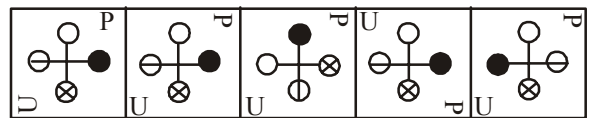


(a) (b) (c) (d) (e)

28. Problem Figures

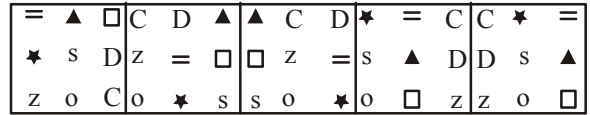


Answer Figures



(a) (b) (c) (d) (e)

29. Problem Figures

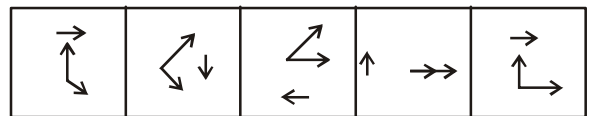


Answer Figures

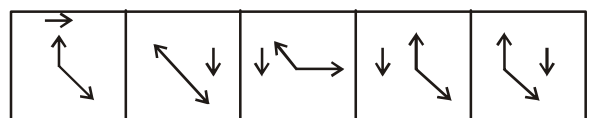


(a) (b) (c) (d) (e)

30. Problem Figures



Answer Figures



(a) (b) (c) (d) (e)

<b>RESPONSE GRID</b>	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)	26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)
	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)		



**101 SPEED TEST**

**59**

**SITTING ARRANGEMENT**

Max. Marks : 25

No. of Qs. 25

Time : 30 min.

Date : ...../...../.....

**DIRECTIONS (Q.1 to 4) :** Study the following information carefully and answer the questions given below it:

- (i) Six boys  $B_1, B_2, B_3, B_4, B_5, B_6$  and six girls  $C_1, C_2, C_3, C_4, C_5$  and  $C_6$  are standing in rows in such a way that each girl faces one boy, not necessarily in the same order.
- (ii)  $C_1$  is to the immediate right of the girl who is facing  $B_5$  the boy at the extreme right. Only  $B_2$  is between  $B_4$  and  $B_5$ .  $B_6$  is to the immediate left of  $B_1$  and to the immediate right of  $B_3$ .  $C_3$  is facing  $B_1$  and is to the immediate left of  $C_2$ .  $C_6$  is third to the left of  $C_4$ .
- Which of the following girls is facing  $B_4$ ?  
 (a)  $C_5$  (b)  $C_4$  (c)  $C_3$   
 (d)  $C_6$  (e) None of these
  - Which of the following pairs of a boy and a girl is at one of the extreme ends?  
 (a)  $C_1, B_5$  (b)  $C_4, B_5$  (c)  $C_5, B_2$   
 (d) Data inadequate (e) None of these
  - Which of the following boys is to the immediate left of  $B_4$ ?  
 (a)  $B_1$  (b)  $B_2$  (c)  $B_1$  or  $B_2$   
 (d) Data inadequate (e) None of these
  - Who is facing  $C_2$ ?  
 (a)  $B_1$  (b)  $B_6$  (c)  $B_4$   
 (d) Data inadequate (e) None of these

**DIRECTIONS (Q. 5 to 10) :** Study the following information to answer the given questions.

Twelve people are sitting in two parallel rows containing six people each, in such a way that there is an equal distance between adjacent persons. In row 1, P, Q, R, S, T and V are seated and all of them are facing south. In row 2, A, B, C, D, E and F are seated and all of them are facing north. Therefore, in the given seating arrangement each member seated in a row faces another member of the other row. A sits third to right of D. Neither A nor D sits at extreme ends. T faces D. V does not face A and V does not sit at any of the extreme ends. V is not an immediate neighbour of T. B sits at one of the extreme ends. Only two people sit between B and E. E does not face V. Two persons sit between R and Q. R is not an immediate neighbour of T. C does not face V. P is not an immediate neighbour of R.

- Who amongst the following sit at extreme ends of the rows?  
 (a) B, E (b) S, T (c) P, R  
 (d) B, F (e) None of these
- Who amongst the following faces A?  
 (a) R (b) T (c) P  
 (d) Q (e) S
- How many persons are seated between T and S?  
 (a) One (b) Two (c) Three  
 (d) Four (e) None
- P is related to V in the same way as C is related to F. Which of the following is E related to, following the same pattern?  
 (a) B (b) D (c) C  
 (d) A (e) None of these
- Which of the following is true regarding F?  
 (a) F sits second to right of C.  
 (b) F is not an immediate neighbour of A.  
 (c) F sits third to left of D.  
 (d) F sits at one of the extreme ends of the line.  
 (e) F faces V.
- Who amongst the following sits exactly between P and Q?  
 (a) R (b) V (c) S  
 (d) T (e) Cannot be determined

**DIRECTIONS (Q. 11 to 16) :** Study the following information carefully and answer the given questions.

P, Q, R, S, T, V, W and X are captains of eight different cricket teams, namely Australia, New Zealand, India, Pakistan, Sri Lanka, England, West Indies and South Africa, but not necessarily in the same order. All of them are seated around a circular table and are facing the centre.

P sits third to the left of the Sri Lankan captain. Only two people sit between T and W. Neither T nor W is an immediate neighbour of P. Neither T nor W is the captain of Sri Lanka. The captain of South Africa sits second to the right of S. S is not an immediate neighbour of P. S is not the Sri Lankan captain and P is not the captain of South Africa. The Australian captain sits third to the left of V. The Australian and Sri Lankan captains are not immediate neighbours. Only one person sits between S and the Indian captain. Captains of Pakistan and New Zealand are immediate neighbours.

**RESPONSE GRID**

- |                    |                    |                    |                    |                     |
|--------------------|--------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e) | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e) | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |

S is not the captain of New Zealand's team. Only one person sits between Q and the captain of England. The captain of England is an immediate neighbour of X. W and Q are not immediate neighbours.

11. How many people sit between T and the captain of England when counted in clockwise direction from T?  
(a) None (b) One (c) Two  
(d) Four (e) Five
12. Who is the captain of the Australian team?  
(a) P (b) V (c) W  
(d) T (e) Q
13. Which of the following would come in place of question mark based upon the given seating arrangement?  
VSXR TVRP?  
(a) SW (b) WX (c) QW  
(d) QX (e) VR
14. Which of the following is **true** with respect to the given seating arrangement?  
(a) R is the captain of South Africa.  
(b) W is an immediate neighbour of V.  
(c) The captains of Australia and England are immediate neighbours.  
(d) Four people sit between W and Q.  
(e) X sits second to the left of S.
15. Who is the Indian captain?  
(a) Q (b) V (c) X  
(d) T (e) Cannot be determined

**DIRECTIONS (Q. 16 to 20) :** Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are sitting around a circle facing the centre. B is third to the right of F and third to the left of H. C is fourth to the left of A, who is not an immediate neighbour of F or B. E is not an immediate neighbour of B. G is second to the right of D.

16. Who is to the immediate left of B?  
(a) D (b) G (c) D or G  
(d) Data inadequate (e) None of these
17. Who is to the immediate right of H?  
(a) A (b) E (c) F  
(d) Data inadequate (e) None of these
18. Which of the following pairs represents the immediate neighbours of F?  
(a) CH (b) ED (c) HD  
(d) CE (e) None of these

19. In which of the following pairs is the first person sitting to the immediate right of the second person?  
(a) BG (b) GA (c) AH  
(d) HE (e) CF
20. Who is third to the left of E?  
(a) A (b) C (c) G  
(d) Data inadequate (e) None of these

**DIRECTIONS (Q. 21 - 25) :** Study the following information carefully and answer the given questions:

Eight friends P, Q, R, S, T, V, W and Y are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside.

P, who faces the centre, sits third to the right of V. T, who faces the centre, is not an immediate neighbour of V. Only one person sits between V and W. S sits second to right of Q. Q faces the centre. R is not an immediate neighbour of P.

21. Who sits second to the left of Q?  
(a) V (b) P (c) T  
(d) Y (e) Cannot be determined
22. What is the position of T with respect to V?  
(a) Fourth to the left (b) Second to the left  
(c) Third to the left (d) Third to the right  
(e) Second to the right
23. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?  
(a) R (b) W (c) V  
(d) S (e) Y
24. Which of the following will come in place of the question mark based upon the given seating arrangement?  
WP TR QW RS ?  
(a) YT (b) VY (c) VQ  
(d) PY (e) QV
25. Which of the following is true regarding R?  
(a) R is an immediate neighbour of V.  
(b) R faces the centre.  
(c) R sits exactly between T and S.  
(d) Q sits third to left of R  
(e) None of these

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 11. (a) (b) (c) (d) (e) | 12. (a) (b) (c) (d) (e) | 13. (a) (b) (c) (d) (e) | 14. (a) (b) (c) (d) (e) | 15. (a) (b) (c) (d) (e) |
| 16. (a) (b) (c) (d) (e) | 17. (a) (b) (c) (d) (e) | 18. (a) (b) (c) (d) (e) | 19. (a) (b) (c) (d) (e) | 20. (a) (b) (c) (d) (e) |
| 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) | 23. (a) (b) (c) (d) (e) | 24. (a) (b) (c) (d) (e) | 25. (a) (b) (c) (d) (e) |



101 SPEED TEST

60

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## STRENGTHENING AND WEAKENING ARGUMENT

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

1. Except from a research report – ‘Average life expectancy in southern part of India is far more than that in Western India. While the average life of a native of South India is 82 years, the average life of a native of Western India is only 74 years.’ Based on the above fact, the proposal that the above study makes is that if an individual moves from Western India to South India, his/her life expectancy would immediately increase by eight years.  
Which of the following statements would weaken the above-mentioned study’s proposal that people belonging to Western parts of India should move to South India to increase their life expectancy?
- The average life expectancy of population living in Eastern part of the country is also less than the population living in South India.
  - Nearly 80% of the population in Southern India has a minimum age of 83 years.
  - Higher life expectancy in Southern India can be ascribed to the genetic makeup of the population belonging to that area.
  - The average life expectancy of South India is comparable to the best averages in the world.
  - Higher life expectancy in Southern India can be attributed to better environmental conditions and better healthcare facilities.
2. Which of the following will weaken the above argument?
- Man is an intelligent creature.
  - Science gives information.
  - Scientific information is revised.
  - News agencies cannot verify news.
  - None of these
3. Which of the following may be regarded as an assumption in the above passage?
- Verification of news is necessary.
  - Science encourages investigative spirit.
  - Science is objective in approach.
  - Science gives us news and not any other information regarding national phenomenon.
  - None of these
4. Which of the following strengthens the argument?
- Agricultural research is scientific.
  - Science gives abstract theories.
  - Verified information is reliable.
  - Science is a compulsory subject.
  - None of these
5. The chairman of a car company announced in a meeting that all trials of its first product, a new model of car 'X', are over and the company is planning to launch its car in the market after six months.  
Which of the following would strengthen the chairman's decision?
- Material management and other resources will have to be in fine tune to maintain production schedule.
  - Company should also make plans for products other than car.
  - The network of dealers must be finalised and all legal, financial and other matters in this regard should be finalised at the earliest.
- Only I
  - Only II
  - Only I and III
  - All the three
  - None of these
6. The prospects for the Indian economy this year will be influenced by the behaviour of the monsoon and expansion of commerce and trade. The Eleventh Plan has envisaged a growth target of 8%. If the agriculture sector does well and the world trade conditions improve then it is possible to achieve a growth of 6-7%. We need to improve our economy and aim at a higher rate of growth in order to feed our population, maintain the standard of living and improve the quality of life. It is now more than 10 years since we have adopted reforms. We need to go forward in liberalisation but we cannot throw open the market for everything. There are sectors like village industries which need protection.  
Which of the following weakens the following statement: "The current trend of liberalisation is good enough to sustain about 6% growth."
- Micro and small industries are helpful in achieving sustained growth, so they need protection.
  - Govt should not hesitate in opening market operations.
  - India should make bilateral trade agreements with other countries.
  - India should open its market for all.
  - None of these

RESPONSE  
GRID

7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e) 11. (a)(b)(c)(d)(e)  
12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e)

7. Mass public education in the past half-century has clearly failed at the most basic level. In fact, it has been detrimental to the public welfare. Recent studies show that only about half of the country's graduating high school seniors can compose a simple business letter. Which one of the following, if true, gives the strongest support to the author's argument?
- (a) A larger percentage of high school seniors than ever before are able to write a business letter correctly.
  - (b) At least 15 percent of today's high school seniors speak English as a second language.
  - (c) Fewer than half of the high school seniors graduating today can do the math necessary to complete an income tax return.
  - (d) More accurate data show that only 46 percent of the nation's high school seniors can compose a simple business letter.
  - (e) A survey taken five decades ago showed that four out of five graduating seniors could write an acceptable business letter.
8. Considering the current economy, the introduction of a new brand of cereal is unlikely to expand total sales of cereal, but rather will just cause some existing buyers of cereal to switch brands. So it makes no sense for the Coolidge Corporation to introduce another brand of cereal, since it will only hurt sales of the brands of cereal it already produces. Which one of the following, if true, would most seriously weaken the argument above?
- (a) Total sales of cereal will increase as the total population increases.
  - (b) Many new brands of cereal sell extremely well for the first year of their existence.
  - (c) Coolidge Corporation currently produces fewer brands of cereal than do its competitors.
  - (d) Some cereal buyers regularly switch from brand to brand, even when no new brands have been introduced.
  - (e) Research indicates that the new brand will attract more buyers of competitors' cereals than buyers of other Coolidge brands.
9. In friendship one sees one's friends as another "self." One cares about him or her in the same way that one cares about oneself. Since each of us desires to know that we exist and are in good circumstances, each of us also wishes to know that our friends are likewise alive and well. Thus, true friendship requires that one live with or near one's friends. Which one of the following, if true, would most weaken the argument above?
- (a) Most people care for themselves much more than they care for their friends.

- (b) Technologies like the telephone allow us to confirm that our friends are alive and well even when we are separated from them by vast distances.
  - (c) It is possible to live near and even with a friend without knowing for certain that he or she is in good circumstances.
  - (d) Merely living near or with a friends will not necessarily ensure that the friend remains alive and in good circumstances.
  - (e) Often circumstances dictate that one friend must move far away, and for him instead to remain among his friends would be so inconvenient that it would place too much strain on the friendship.
10. If too much pressure is exerted on the bottom shelf of a bookcase, the entire bookcase will collapse. Sherry's bookcase has collapsed. Therefore, too much pressure must have been exerted on its bottom shelf. Which one of the following criticisms best describes a weakness in the argument above?
- (a) It supports its conclusion with irrelevant evidence.
  - (b) It contains a shift in the meaning of the word "collapse" from "partial collapse" to "full collapse".
  - (c) It concludes that an outcome has been caused by a particular factor that may be only one possible cause of the outcome in question.
  - (d) It overlooks the possibility that some bookshelves have only one shelf.
  - (e) It draws an overly broad conclusion from contradictory evidence.
11. Ethologists, people who study animal behaviour, have traditionally divided an organism's actions into two categories: learned behaviour (based on experience) and instinctive behaviour (based on genotype). Some current scholars reject this distinction, claiming that all behaviour is a predictable interaction of experience and genotype. Which of the following, if true, most strengthens the arguments made in the sentence above?
- (a) All organisms with identical genotypes and identical experience sometimes respond differently in different situations.
  - (b) All organisms with different genotypes and identical experience always respond identically in identical situations.
  - (c) All organisms with similar genotypes and similar experience always respond differently in identical situations.
  - (d) All organisms with identical genotypes and identical experience always respond identically in identical situations.
  - (e) All organisms with identical genotypes and different experience always respond identically in identical situations.



12. Media are not just passive channels of information. Not only do they supply the stuff of thought, but they also shape the process of thought. And what the Internet seems to be doing is chipping away our capacity for concentration. Which of the following if true, would most strengthen the argument presented above ?
- Nietzsche was forced to use a typewriter when he started losing his vision. After he mastered the machine, he could type with his eyes closed. It was later found that under the effect of the machine, Nietzsche's prose "changed from arguments to aphorisms, from thoughts to puns, from rhetoric to telegram style".
  - One of the effects of the timekeeping instruments has been that we have started deciding on our daily activities based on the clock and not based on our senses.
  - Studies have shown that the essay writing skills of an average 15 -20 year old, who spends a lot of time browsing the Internet, is comparable to what it was among the average 15-20 year old, throughout the 1980s and the 1990s.
  - A recent study has shown that the number of people who fall asleep while reading a printed book has increased in the last five years.
  - The ability of the younger judges, who have grown up with ready access to Internet, to judge complex and intricate cases, has, on an average, become better as compared to what it was for judges of comparable age profile during the 1920s.
13. Which of the following, if true, would most weaken the argument presented in the previous question ?
- Nietzsche was forced to use a typewriter when he started losing his vision. After he mastered the machine, he could type with his eyes closed. It was later found that under the effect of the machine, Nietzsche's prose "changed from arguments to aphorisms, from thoughts to puns, from rhetoric to telegram style".
  - One of the effects of the timekeeping instruments has been that we have started deciding on our daily activities based on the clock and not based on our senses.
  - Studies have shown that the essay writing skills of an average 15-20 year old, who spends a lot of time browsing the Internet, is comparable to what it was among the average 15-20 year old, throughout the 1980s and the 1990s.
  - A recent study has shown that the number of people who fall asleep while reading a printed book has increased in the last five years.
  - The ability of the younger judges, who have grown up with ready access to Internet, to judge complex and intricate cases, has, on an average, become better as compared to what it was for judges of comparable age profile during the 1920s.
14. As the information on air warface tasks and stressors was being gathered and scenarios were being developed, a parallel effort ensued to identify a test bed simulation for air warfare teams. To maintain experimental control it was determined by the designers that choosing a low physical fidelity simulation was acceptable as long as cognitive fidelity in a team simulation was maintained through subjecting soldiers to pressure situations in a simulated combat setting and attempting to ensure that naturalistic decision making of soldiers would not be compromised. Which of the following statements, if true, weakens the logic of the above passage ?
- A number of studies have shown that high levels of physical stress lead to a weakening of the decision making capabilities of human beings.
  - It has been convincingly demonstrated by various studies that human beings by nature are not designed to adapt to high levels of mental stress.
  - Numerous studies have shown that simulated environments can be designed to be good substitutes for real life combat situations.
  - Studies have shown that simulated exercises for armed forces personnel have tended to induce a systematic type of "correct" and common behaviour among the trainees.
  - Officers, when short listing soldiers for critical operations, pick up battle-hardened soldiers rather than those who have been trained through simulations.
- i and ii
  - ii and iii
  - i and iv
  - i, ii, iv, and v
  - ii, iii, iv and v
15. Silver is especially and repetitively savage about what he sees as the extravagant claims made for particle physics, arguing that once the proton, neutron and electron were found and their properties experimentally confirmed, the very expensive searches for ever more exotic particles, such as the Higgs Boson, were increasingly harder to justify other than by their importance to particle physicists. Most of the particles resemble ecstatic happiness: They are very short-lived and have nothing to do with everyday life. His repeated assault goes to the level of sarcasm: "Finding the Higgs Boson will be a magnificent technical and theoretical triumph. Like a great Bobby Fisher game". Of course, this is a tad unfair, even if some of the claims of its practitioners invite such assaults on their field. Which of the following, if true, will weaken the argument described in the passage?
- All streams of new science need to undergo through a period of uncertainty and we should not criticize research in particle physics alone.
  - Necessity is the mother of every invention.
  - Knowledge has preceded application in all spheres of science.
  - Funding agency supporting research on Higgs Boson do not mind wasting their money.
  - Do not expect everyone to appreciate everything.

16. The Yoga system is divided into two principal parts — Hatha and Raja Yoga. Hatha Yoga deals principally with the physiological part of man with a view to establish his health and train his will. The processes prescribed to arrive at this end are so difficult that only a few resolute souls go through all the stages of its practice. Many have failed and some have died in the attempt. It is therefore strongly denounced by all the philosophers. The most illustrious Shankaracharya has remarked in his treatise called Aparokshanubhuti that "the system of Hatha Yoga was intended for those whose worldly desires are not pacified or uprooted." Which one of the following, if true, most substantially strengthens the idea given in the passage?
- The percentage of people in a given ashram practising Raja Yoga is more than the percentage of people practising Hatha Yoga.
  - The number of people in a given ashram practising Raja Yoga is more than the number of people practising Hatha Yoga.
  - The number of Yoga schools teaching Raja Yoga is more than the number of Yoga schools teaching Hatha Yoga.
  - The number of teachers teaching Raja Yoga is more than the number of teachers teaching Hatha Yoga.
  - The percentage of students who have successfully learnt Raja Yoga is more than the percentage of students who have successfully learnt Hatha Yoga.

**(17-18):** According to recent reports, CEOs of large organisations are paid more than CEOs of small organisations. It does not seem fair that just because a CEO is heading a big organisation she/he should be paid more. CEOs' salary should be related to performance, especially growth in terms of sales and profits.

Of course, big organisations are more complex than 'the small, but all CEOs require significant amount of energy and time in managing organisations. There is no proof that CEOs of big organisations are more stressed than CEOs of small organisations. All CEOs should be paid according to their performance.

17. A person seeking to refute the argument might argue that
- CEOs should be paid equally.
  - Managing big organisation is more challenging than small.
  - If CEOs of small companies performs well, the company would become big and so would be CEOs' salary.
  - CEOs, who travel more should be paid more.
  - Highly qualified CEOs should be paid more because they have acquired difficult education.

18. Which of the following, if true, would strengthen the speaker's argument?
- CEOs of small organisations come from good educational background.
  - CEOs of big organisations are very difficult to hire.
  - A few big family businesses have CEOs from within the family.
  - CEOs in big organisation take much longer to reach top, as compared to their counterparts in small organisations.
  - Big organisations contribute more towards moral development of society.
19. The purpose of the proposed law requiring a doctor's prescription for obtaining hypodermic needles is to lower the incidence of drug-related deaths, both accidental and intentional, involving hypodermic needles. But even knitting needles can be lethal if they fall into the wrong hands; yet everyone would agree that imposing legal restrictions on obtaining knitting needles would be preposterous. Hence the proposed law involving hypodermic makes no sense and should not be enacted.

Which of the following, if true, would provide most support for the argument above?

- Knitting needles have been known to cause injury and death.
  - The benefits of hypodermic needles outweigh those of knitting needles.
  - The proposed law would not deter the sort of activity known to result in drug-related deaths.
  - Knitting needles are not readily available to anybody who wants to obtain them.
  - None of the above
20. A drug that is very effective in treating some forms of cancer can, at present, be obtained only from the bark of the Raynhu, a tree that is quite rare in the wild. It takes the bark of approximately 5,000 trees to make one pound of the drug. It follows, then, that continued production of the drug must inevitably lead to the raynhu's extinction.
- Which of the following, if true, most seriously weakens the above conclusion?
- The drug made from Raynhu bark is dispensed to doctors from a central authority.
  - The drug made from the Raynhu bark is expensive to produce.
  - The Raynhu generally grows in largely inaccessible places.
  - The Raynhu can be propagated from cuttings and cultivated by farmers.
  - None of the above



101 SPEED TEST

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## FORCEFULNESS OF ARGUMENTS

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**DIRECTIONS (Q. 1-15) :** Each question below is followed by two arguments numbered I and II. You have to decide which of the argument is a forceful argument.

**Give answer (a)** if only argument I is forceful.

**Give answer (b)** if only argument II is forceful.

**Give answer (c)** if either I or II is forceful.

**Give answer (d)** if neither I nor II is forceful.

**Give answer (e)** if both I and II are forceful.

1. Should all beggars on the roads in the big cities in India be forcibly sent to villages?

**Arguments:**

I. No, this is grossly unfair and these people will die of hunger if they are sent to villages.

II. Yes, these people create a bad impression of our country in the eyes of the foreigners who visit our country and hence should be removed.

2. Should all the criminals convicted for committing murder be awarded capital punishment?

**Arguments:**

I. Yes, this will be a significant step towards reducing cases of murder in future.

II. No, nobody has the right to take any person's life irrespective of the acts of such individuals.

3. Should all the professional colleges in India be encourage to run their own courses without affiliation to any university?

**Arguments:**

I. Yes, this is only way to create more opportunities for those who seek professional training.

II. No, this will dilute the quality of professional training as all such colleges may not be equipped to conduct such courses.

4. Should there be a maximum ceiling imposed on the earnings of an individual in an organization?

**Arguments:**

I. Yes, this will help equitable distribution of earnings to all the employees.

II. No, the organization should have free hand to decide the pay packets of its employees.

5. Should there be a compulsory military training for each college student in India?

**Arguments:**

I. No, this goes against the basic democratic right of an individual to choose his/her own programs.

II. Yes, this is the only way to build a strong and powerful nation.

6. **Statement:** Should government established higher level institutes of Technology (IIT's) be privatised?

**Arguments:**

I. Yes, privatisation will make these institutes financially healthy, competitive and quality conscious.

II. Yes, privatisation is the key of the new era-can we survive without it?

7. **Statement:** Should vacations of court judges be reduced?

**Arguments:**

I. Yes, it will speed up judicial process and many people are likely to get justice in reasonable time.

II. Yes, it is a sign of British legacy, why should we carry it further?

8. **Statement:** Should the practice of transfers of clerical cadres employee from one city to another government offices to be stopped?

**Arguments:**

I. No, transfer of employees is a routine administrative matter and we must continue it.

II. Yes, it involves lot of governmental expenditure and inconvenience to many compared to the benefits it yields.

9. **Statement:** Should higher qualification be the only criteria for internal promotions in any organisation?

**Arguments:**

I. Yes, why not? In fact only higher qualification is more important than other factors.

II. No, quality of performance and other factors are more important than mere higher qualification in case of internal promotion.

10. **Statement:** Should Indian scientists working abroad be called back to India?

**Arguments:**

I. Yes, they must serve the motherland first and forget about discoveries, honours, facilities and all.

II. No, we have enough talent, let them stay where they want.

11. Should the school teachers be necessarily involved in the census activities?

**Arguments:**

I. No, this will adversely affect the quality of teaching programme.

II. Yes, the teachers are the best fit for this job.

**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)    9. (a)(b)(c)(d)(e)    10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e)

12. Should India engage into a dialogue with neighbouring countries to stop cross border tension?

**Arguments:**

- I. Yes, this is the only way to reduce the cross border terrorism and stop loss of innocent lives.
- II. No, neighbouring countries cannot be relied upon in such matters, they may still engage in subversive activities.

13. Study all the utility services be immediately brought under essential services to avoid frequent agitation and strikes by the employees?

**Arguments:**

- I. No, otherwise how the employees may voice their grievances and demands.
- II. Yes, the employees are becoming more and more greedy and they take the general public for a ride by striking work.

14. Should all the unauthorised structures in the city be immediately demolished

**Arguments:**

- I. No, where will the people residing in such houses live?
- II. Yes, this will give a clear message to general public and they will refrain from constructing unauthorised buildings.

15. Should the railways in India be privatised in a phased manner like other public sector enterprises?

**Arguments:**

- I. Yes, this is the only way to bring in competitiveness and provide better service to the public.
- II. No, this will pose a threat to national security of our country as multinationals will enter into the fray.

**DIRECTIONS (Q. 16-20) :** Each question below is followed by three arguments numbered I, II and III. You have to decide which of the arguments is a 'forceful'.

16. Should the income generated out of agricultural activities be taxed?

**Arguments:**

- I. No, farmers are otherwise suffering from natural calamities and low yield coupled with low procurement price and their income should not be taxed.
- II. Yes, majority of the population is dependent on agriculture and hence their income should be taxed to augment the Government resources.
- III. Yes, many big farmers earn much more than majority of the service earners and they should be taxed to remove the disparity.

- (a) All are forceful      (b) Only II and III are forceful
- (c) Only I is forceful    (d) Only I and II are forceful
- (e) None of these

17. Should all the indirect taxes in India be combined into a single tax on all commodities?

**Arguments:**

- I. Yes, this will considerably simplify the tax collection mechanism and the cost of collecting tax will also reduce.

II. Yes, the manufacturers and traders will be benefited by this which in turn will boost tax collection.

III. No, no other country has adopted such system.

- (a) None of forceful
- (b) Only I and III are forceful
- (c) Only II is forceful
- (d) Only II and III are forceful
- (e) None of these

18. Should all the students graduating in any discipline desirous of pursuing post graduation of the subjects of their choice be allowed to enroll in the post graduate courses?

**Arguments:**

- I. Yes, the students are the best judge of their capabilities and there should not be restrictions for joining post graduation courses.
- II. No, the students need to study relevant subjects in graduate courses to enroll in post graduate courses and the students must fulfill such conditions.
- III. No, there are not enough institutes offering post graduate courses which can accommodate all the graduates desirous of seeking post graduate education of their own choice.

- (a) None is forceful
- (b) Only I and II are forceful
- (c) All are forceful
- (d) Only I and III are forceful
- (e) None of these

19. Should there be complete ban on Indian professionals seeking jobs elsewhere after getting their education in India?

**Arguments:**

- I. Yes, this is the only way to sustain present rate of technological development India.
- II. No, the Indians settled abroad send huge amount of foreign exchange and this constitute a significant part of foreign exchange reserve.
- III. No, the practical knowledge gained by Indians by working in other countries help India develop its economy.

- (a) None is forceful
- (b) Only I and II are forceful
- (c) Only III is forceful
- (d) Only II and III are forceful
- (e) All are forceful

20. Should there be only few banks in place of numerous smaller banks in India?

**Arguments:**

- I. Yes, this will help secure the investor's money as these big banks will be able to withstand intermittent market related shocks.
- II. No, large number of people will lose their job as after the merger many employees will be redundant.
- III. Yes, this will help consolidate the entire banking industry and will lead to healthy competition.

- (a) None is forceful argument
- (b) Only I and III are forceful argument
- (c) Only II and III are forceful argument
- (d) Only I and II are forceful argument
- (e) All are forceful arguments.

**RESPONSE GRID**

12. (a)(b)(c)(d)(e)    13. (a)(b)(c)(d)(e)    14. (a)(b)(c)(d)(e)    15. (a)(b)(c)(d)(e)    16. (a)(b)(c)(d)(e)  
 17. (a)(b)(c)(d)(e)    18. (a)(b)(c)(d)(e)    19. (a)(b)(c)(d)(e)    20. (a)(b)(c)(d)(e)



101 SPEED TEST

62

SECTION TEST REASONING

Max. Marks : 50

No. of Qs. 50

Time : 35 min.

Date : ...../...../.....

**Directions (Qs. 1-5):** Study the following information to answer the given questions.

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

**Input :** yellow 7 green 14 2 clear to 23 own 18 under 19 44

**Step I :** 2 7 green 14 clear to 23 own 18 under 19 44 yellow

**Step II :** 22 37 green 14 clear to own 18 19 44 under yellow

**Step III :** 22 31 47 green clear own 18 19 44 to under yellow

**Step IV :** 22 31 41 97 green clear 18 44 own to under yellow

**Step V :** 22 31 41 91 87 clear 44 green own to under yellow

**Step VI :** 22 31 41 91 87 44 clear green own to under yellow

**Step VI :** is the last step of the above rearrangement. As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the input given below.

**Input:** virus 11 inter 5216 arm keep 47 wind 22 quick 31 66 luck

- Which of the following would be the last step?  
(a) IV (b) V (c) VI  
(d) VII (e) None of these
- Which of the following is step IV?  
(a) 16 47 22 31 52 11 arm 66 inter keep luck quick virus wind  
(b) 16 47 22 31 11 inter 52 arm 66 keep luck quick virus wind  
(c) 16 47 22 11 31 inter 66 keep 52 arm luck quick virus wind  
(d) 16 22 3147 11 arm 52 inter keep luck quick virus wind  
(e) None of these
- Which of the following element would be at the 8th position from the right in step V?  
(a) 11 (b) arm (c) 66  
(d) inter (e) None of these
- In step V and VI of the rearrangement, if 'arm' is related to 'li' and 'keep' is related to 'inter' in a certain way, which of the following would 'quick' be related to, following the same pattern?  
(a) keep (b) luck (c) virus  
(d) 66 (e) None of these
- In step III of the rearrangement, if '52' is related to 'keep' and 'arm' is related to '3 1' in a certain way, which of the following would '66' be related to, following the same pattern?  
(a) quick (b) virus (c) luck  
(d) arm (e) None of these

**Directions (Qs. 6-10) :** On the basis of the information given below, answer the following questions.

Eight friends, viz Manu, Ritu, Tinku, Rishi, Alka, Rohan, Sony and Akash, sit in a row having chairs numbered one to eight in ascending order from left to right. They all are facing North direction. Tinku sits on chair number six. There are exactly two persons between Tinku and Manu. Ritu and Akash always sit adjacent to each other. Sony sits adjacent to neither Manu nor Tinku. Alka never sits on a chair having an odd number

on it. Neither Ritu nor Akash sits on chair number four. There is only one person between Rohan and Ritu. Alka sits on the right (not necessarily immediate right) of Rishi and Rishi never sits adjacent to Rohan.

- Who among the following sit at extreme ends?  
(a) Sony, Ritu (b) Akash, Rishi  
(c) Monu, Ritu (d) Akash, Sony  
(e) Can't be determined
- Who among the following sits on the immediate right of Alka?  
(a) Manu (b) Rohan (c) Ritu  
(d) Akash (e) None of these
- How many persons are sitting between Ritu and Manu?  
(a) One (b) Two (c) Three  
(d) Four (e) None of these
- Who among the following is different from the others, based upon the given seating arrangement?  
(a) Sony (b) Alka (c) Rohan  
(d) Ritu (e) Manu
- If (from left to right) the first person interchanges his position with the person at fifth position and the second person interchanges his position with the person at sixth position and so on, which of the following will be the fifth from the right end in the new arrangement?  
(a) Ritu (b) Tinku (c) Akash  
(d) Rishi (e) None of these

**Directions (Qs. 11-15):** In each question below are given two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the two conclusions logically follows from the given statements disregarding commonly known facts.

- Give answer (a) :** if only conclusion I follows.  
**Give answer (b) :** if only conclusion II follows.  
**Give answer (c) :** if either conclusion I or II follows.  
**Give answer (d) :** if neither conclusion I nor II follows.  
**Give answer (e) :** if both conclusions I and II follow.

(11-12):

**Statements:** All bags are purses.  
No purse is black.  
All blacks are beautiful.

- Conclusions:** I. Some bags being black is a possibility.  
II. At least some purses are bags.
- Conclusions:** I. All purses being beautiful is a possibility.  
II. Some bags are not black.

(13-14):

**Statements:** Some fishes are cats.  
Some dogs are cats.  
No fish is black.

RESPONSE  
GRID

- |                     |                     |                    |                    |                     |
|---------------------|---------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) |                    |                    |                     |

- 13. Conclusions:** I. At least some cats are not black.  
II. There is a possibility that some fishes are dogs.
- 14. Conclusions:** I. No dog is black.  
II. Some cats are black.
- 15. Statements:** No rose is red.  
No flower is a rose.
- Conclusions:** I. At least some flowers are red.  
II. All red are flowers.

**Directions (Qs.16-20) :** These questions are based on the following information. Study it carefully and answer the questions.

Seven members L, H, K, T, F, J and R represent different countries in Olympics viz, USA, China, Korea, France, Russia, Australia and Japan; each one competes for a different sport, viz. Volleyball, Archery, Rifle Shooting, Tennis, Boxing, Athletics and Football. The order of persons, countries and games is not necessarily the same.

K represents China for Archery. T represent USA but not for Volleyball or Rifle Shooting. The one who represents Japan competes for Boxing. F competes for Volleyball but not for Korea. L represent Australia for Athletics. The one who represents Russia competes for Tennis. J does not represent Korea or Japan. R competes for Rifle Shooting.

- 16.** Which of the following combinations is correct?  
(a) J - Tennis - France (b) R - Tennis-Russia  
(c) R - Tennis - France (d) J - Tennis - Russia  
(e) None of these
- 17.** Who represents Japan?  
(a) F (b) R (c) J  
(d) H (e) None of these
- 18.** F represents which country?  
(a) France (b) Russia (c) Japan  
(d) Korea (e) None of these
- 19.** The one who competes for Rifle Shooting, represents which country?  
(a) France (b) Korea (c) Japan  
(d) USA (e) None of these
- 20.** For which game does T compete?  
(a) Boxing (b) Football  
(c) Tennis (d) Cannot be determined  
(e) None of these

**Directions (Qs. 21-27):** Study the following information carefully and answer the given questions.

Eight colleagues, A, B, C, D, E, F, G and H, are sitting around a circular table facing the centre but not necessarily in the same order. Each one of them holds a different post—Manager, Company Secretary, Chairman, President, Vice President, Group Leader, Financial Advisor and Managing Director.

A sits third to the right of the Managing Director. Only two people sit between the Managing Director and H. The Vice President and the Company Secretary are immediate neighbours. Neither A nor H is a Vice President or a Company Secretary. The Vice President is not an immediate neighbour of the Managing Director. The Manager sits second to the left of E. E is not an immediate neighbour of H. The Manager is an immediate neighbour of both the Group Leader and the Financial Advisor. The Financial Advisor sits third to the -right of B. B is not the Vice President. C sits on the immediate right of the Chairman. A is not the Chairman. F is not an immediate neighbour of A. G is not an immediate neighbour of the Manager.

- 21.** Who amongst the following sits third to the left of E?  
(a) Manager (b) G (c) A  
(d) Financial Advisor (e) B
- 22.** Four of the following five are alike in a certain way based on the given arrangement and thus form a group. Which is the one that does not belong to that group?  
(a) F-Chairman (b) G-President (c) D-Manager  
(d) A-Financial Advisor (e) Managing Director
- 23.** Who among the following is the President of the company?  
(a) A (b) C (c) H  
(d) G (e) D
- 24.** Which of the following is true with respect to the given seating arrangement?  
(a) The Group Leader of the company is an immediate neighbour of the Vice President.  
(b) G sits second to the right of D.  
(c) The Group Leader and the Company Secretary are immediate neighbours.  
(d) The Chairman of the company sits to the immediate left of the Managing Director.  
(e) The Group Leader sits second to the left of D.
- 25.** Which of the following posts does B hold in the company?  
(a) Chairman (b) Manager  
(c) Company Secretary (d) Vice President  
(e) Financial Advisor
- 26.** Who among the following sits exactly between the Managing Director and H?  
(a) H and the Chairman (b) B and G  
(c) The Chairman and C (d) F and C  
(e) E and the Group Leader
- 27.** Who among the following is the Group Leader?  
(a) C (b) F (c) G  
(d) H (e) A

**Directions (Qs. 28-31):** Read the following information and the sentences (A), (B), (C), (D) and (E) given below it carefully and answer the questions which follow:

A host of foreign companies are in talks with the Indian government for selling B 150, a tough, short-haul plane ideal for connectivity of smaller towns which is lacking in India at present.

- (A) B 150 planes have not only low operating costs than competing planes like Cezana but also a much better track record in terms of safety and efficiency.
- (B) The profit margin of road transport operators in the smaller towns connected by B 150 planes has been reduced substantially as a majority of people prefer air transport over other means of transport.
- (C) Smaller towns, at present, are better connected by roads and railways as compared to flight services.
- (D) B 150 planes are capable of operating in sectors where large airlines cannot fly due to challenging conditions such as mist, short runways, etc. Such planes can also double up as cargo planes and charter flights for the rich and the elite.
- (E) B 150 planes need to operate in the existing airports which are situated in bigger cities only and are poorly connected to the smaller cities.

**RESPONSE  
GRID**

- |                                |                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>13.</b> (a) (b) (c) (d) (e) | <b>14.</b> (a) (b) (c) (d) (e) | <b>15.</b> (a) (b) (c) (d) (e) | <b>16.</b> (a) (b) (c) (d) (e) | <b>17.</b> (a) (b) (c) (d) (e) |
| <b>18.</b> (a) (b) (c) (d) (e) | <b>19.</b> (a) (b) (c) (d) (e) | <b>20.</b> (a) (b) (c) (d) (e) | <b>21.</b> (a) (b) (c) (d) (e) | <b>22.</b> (a) (b) (c) (d) (e) |
| <b>23.</b> (a) (b) (c) (d) (e) | <b>24.</b> (a) (b) (c) (d) (e) | <b>25.</b> (a) (b) (c) (d) (e) | <b>26.</b> (a) (b) (c) (d) (e) | <b>27.</b> (a) (b) (c) (d) (e) |

28. Which of the statements (A), (B), (C), (D) and (E) can be inferred from the facts/information given in the statement? (An inference is something which is not directly stated but can be inferred from the given facts.)  
 (a) Only A (b) Only B (c) Only C  
 (d) Both B and D (e) Only E
29. Which of the statements (A), (B), (C), (D) and (E) mentioned above would weaken the offer made by the foreign companies for selling B 150 planes to Indian government?  
 (a) A (b) B (c) C  
 (d) D (e) E
30. Which of the statements (A), (B), (C), (D) and (E) mentioned above represents a possible consequence of the success of B 150 planes in smaller cities?  
 (a) A (b) B (c) C  
 (d) D (e) E
31. Which of the statements (A), (B), (C), (D) and (E) would favour the foreign companies' bid to sell B 150 planes in India?  
 (a) Only A (b) Only B  
 (c) Both B and C (d) Both A and D  
 (e) Both E and C

**Directions (Qs. 32-36):** In each question below is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumption is implicit in the statement.

- Give answer (a)** if only Assumption I is implicit.  
**Give answer (b)** if only Assumption II is implicit.  
**Give answer (c)** if either Assumption I or Assumption II implicit.  
**Give answer (d)** if neither Assumption I nor Assumption II is implicit.  
**Give answer (e)** if both Assumption I and Assumption II are implicit.
32. **Statement:** The govt has decided earmark a separate lane in the metropolis for passenger vehicles with more than one occupant.  
**Assumptions:**  
 I. The move may help decongest the roads of the metropolis.  
 II. Many people may resort to car pool system to avoid traffic snarls.
33. **Statement:** Manish invited all his friends to his house for dinner on his birthday and requested his mother to arrange for the birthday party.  
**Assumptions:**  
 I. Most of Manish's friends may attend his birthday party.  
 II. Manish's mother may be able to make all the arrangements including food for all his friends.
34. **Statement:** The civic authority of the metropolis has decided to suspend sanctioning of new building proposals for six months and assess the impact of the current building projects on the city's.  
**Assumptions:**  
 I. The builders' lobby may move the court against the civic body's decision.  
 II. The civic authority may be able to complete the impact study in about six months.
35. **Statement:** The railway authority has announced that it will carry out major repair work for two days beginning Saturday on the main line connecting the two big cities in the state, bringing the rail service to a halt.  
**Assumptions:**  
 I. People may reschedule their journey in view of the railway authority's decision.  
 II. People may still plan their travel by train between the two cities even on these two days.

36. **Statement:** The govt has directed all the degree colleges to declare result of all the examinations within a fortnight after the last date of examination.

**Assumptions:**

- I. The college authorities may not be able to declare all the results within the stipulated time.  
 II. Many college authorities may not be able to conduct all the examinations in time.

**Directions (Qs.37-40):** Read the following information and five statements given below it carefully and answer the questions which follows:

- People in the remote village of Kenal are now totally self-sufficient and liberal and no longer wait till people from urban areas dish out empowerment as a special privilege or favour.
- (A) Many of the residents formed a group and initiated a self-help micro-credit programme which provided help and support to the villagers to start a new business.  
 (B) There was a time when the villagers had to seek favours from their urban counterparts.  
 (C) Kenal lacks the new advancements and technological developments owing to a lack of urban intervention.  
 (D) Many other villages are now approaching the people from Kenal to help them follow the same directions.  
 (E) Women in Kenal too are realising the importance of empowerment and are taking every possible step to add to their family's kitty.
37. Which of the statements numbered (A), (B), (C), (D) and (E) can be inferred from the given statement? (An inference is something which can be directly inferred from the given facts.)  
 (a) Only (A) (b) Only (B) (c) Only (C)  
 (d) Only (D) (e) Both (A) and (E)
38. Which of the statements numbered (A), (B), (C), (D) and (E) mentioned above would prove that intervention from their urban counterparts can also be beneficial to a certain extent?  
 (a) (A) (b) (B) (c) (C)  
 (d) (D) (e) (E)
39. Which of the statements numbered (A), (B), (C), (D) and (E) mentioned above represents a step which helped the process of liberalization and empowerment of the villagers?  
 (a) (A) (b) (B) (c) (C)  
 (d) (D) (e) (E)
40. Which of the following represent a result / repercussion of the success experienced by the residents of the village Kenal?  
 (a) (B) (b) (C)  
 (c) Both (C) and (E) (d) (A)  
 (e) (D)

**Directions (Qs.41-45):** In each question below is given a statement followed by three courses of action numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) for pursuing.

41. **Statement:** The members belonging to two local clubs occasionally fight with each other on the main road and block traffic movement.  
**Courses of action:**  
 I. The local police station should immediately deploy police personnel round the clock on the main road.  
 II. Those involved in fighting should be identified and put behind bars.  
 III. The local administration should disband the management of the two clubs with immediate effect.  
 (a) Only I and II follow (b) Only II and III follow  
 (c) Only I and III follow (d) All I, II and III follow  
 (e) None of these

**RESPONSE  
GRID**

28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e) 31. (a)(b)(c)(d)(e) 32. (a)(b)(c)(d)(e)  
 33. (a)(b)(c)(d)(e) 34. (a)(b)(c)(d)(e) 35. (a)(b)(c)(d)(e) 36. (a)(b)(c)(d)(e) 37. (a)(b)(c)(d)(e)  
 38. (a)(b)(c)(d)(e) 39. (a)(b)(c)(d)(e) 40. (a)(b)(c)(d)(e) 41. (a)(b)(c)(d)(e)

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42. **Statement:** Many students of the local school fell ill for the fourth time in a row in the last six months after consuming food prepared by the school canteen.

**Courses of action:**

- I. The school management should immediately terminate the contract of the canteen and ask for compensation.
  - II. The school management should advise all the students not to eat food articles from the canteen.
  - III. The owner of the canteen should immediately be arrested for negligence.
- (a) None follows (b) Only II follows  
 (c) Only III follows (d) Only I and II follow  
 (e) Only II and III follow

43. **Statement:** Many school buses have fitted CNG kit without observing the safety guidelines properly. This results into some instances of these buses catching fire due to short circuit and endangering the lives of the school children.

**Courses of action:**

- I. The regional transport authority should immediately carry out checks of all the school buses fitted with CNG kit.
  - II. The management of all the schools should stop hiring buses fitted with CNG kit.
  - III. The govt should issue a notification banning school buses for the use of CNG kit
- (a) Only I follows (b) Only II follows  
 (c) Only III follows (d) Only I and III follow  
 (e) None of these

44. **Statement:** A sudden cloud burst over the island city resulted into unpredicted rainfall causing a flood-like situation in the entire area. A large number of people were caught unaware and were stranded on the road.

**Courses of action:**

- I. The local administration should immediately put in place an action plan for avoiding such a situation in future.
  - II. The local administration should immediately deploy personnel to help the stranded people to move to safer places.
  - III. The local administration should advise all the citizens not to venture out on the road till the situation improves.
- (a) Only I follows (b) Only II follows  
 (c) Only III follows (d) Only I and III follow  
 (e) All I, II and III follow

45. **Statement :** It is reported that during the last fortnight there has been three cases of near-miss situation involving two aircrafts over the busy city airport. In all these cases, both the aircraft came perilously close to each other and could avoid collision as the pilots acted just in time.

**Courses of action:**

- I. The pilot of all the six aircraft involved in these incidents should be de-restored immediately.
  - II. Some flights should be diverted to other airports for the next few months to decongest the sky over the city airport.
  - III. Air traffic controllers of the city airport should be sent for refresher courses in batches to prepare themselves to handle such a pressure situation.
- (a) Only I follows (b) Only II follows  
 (c) Only III follows (d) Only II and III follow  
 (e) None of these

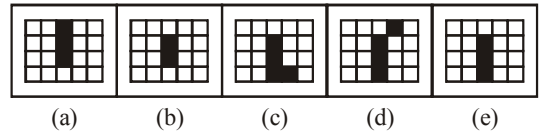
**Directions (Qs. 46-50) :** In each of the question given below which one of the five answer figures on the right should come after the problem figures on the left, if the sequence were continued?

46.

**Problem Figures**



**Answer Figures**

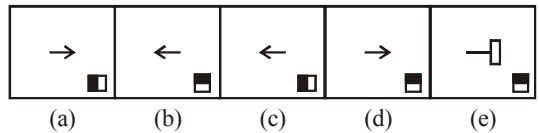


47.

**Problem Figures**



**Answer Figures**

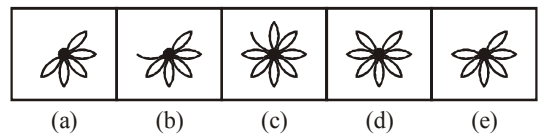


48.

**Problem Figures**

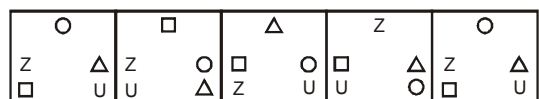


**Answer Figures**

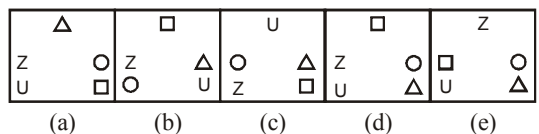


49.

**Problem Figures**



**Answer Figures**

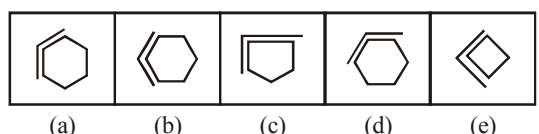


50.

**Problem Figures**



**Answer Figures**



<b>RESPONSE GRID</b>	42. (a)(b)(c)(d)(e)	43. (a)(b)(c)(d)(e)	44. (a)(b)(c)(d)(e)	45. (a)(b)(c)(d)(e)	46. (a)(b)(c)(d)(e)
	47. (a)(b)(c)(d)(e)	48. (a)(b)(c)(d)(e)	49. (a)(b)(c)(d)(e)	50. (a)(b)(c)(d)(e)	





**SYNONYMS/ANTONYMS**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (1-15) :** Pick up the correct synonyms for each of the following words.

1. HAUGHTY  
(a) imperial (b) imperious (c) adamant  
(d) empire (e) None of these
2. LOQUACIOUS  
(a) Victorian (b) bombastic (c) verbose  
(d) ambiguous (e) None of these
3. BEQUEST  
(a) Parsimony (b) matrimony (c) heritage  
(d) patrimony (e) None of these
4. RECUPERATE  
(a) recapture (b) reclaim (c) recover  
(d) regain (e) None of these
5. ATTENUATE  
(a) repent (b) make thin (c) force  
(d) divide (e) None of these
6. ABSTINENCE  
(a) synchronic (b) torrential (c) restraint  
(d) gluttony (e) None of these
6. TACITURNITY  
(a) dumbness (b) changeableness  
(c) hesitation (d) reserve  
(e) None of these
8. BLITHE  
(a) joyless (b) grudging (c) somnolent  
(d) cheerful (e) None of these
9. CAPTIVATE  
(a) repel (b) subjugate (c) dangerous  
(d) fascinate (e) None of these

10. HONORARY  
(a) honest (b) dignified (c) unpaid  
(d) praiseworthy (e) None of these
11. FORESEE  
(a) contemplate (b) visualise (c) assume  
(d) hypothesis (e) None of these
12. ANNEX  
(a) add (b) low (c) copy  
(d) initial (e) None of these
13. MENAGE  
(a) suffocation (b) system (c) law  
(d) household (e) None of these
14. INFIRMITY  
(a) disease (b) malady (c) weakness  
(d) slimness (e) None of these
15. IMMINENT  
(a) eminent (b) immediate (c) future  
(d) impending (e) None of these

**Direction (Qs. 16-25) :** Pick up the correct antonyms for each of the following words.

16. REINFORCING  
(a) contradicting (b) wishing (c) jolting  
(d) forcing (e) re-inventing
17. SLUMP  
(a) output (b) rise (c) slide  
(d) slack (e) input
18. SHRANK  
(a) Hope (b) Depended (c) Grew  
(d) Pretended (e) Integrated

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |
| 16. (a)(b)(c)(d)(e) | 17. (a)(b)(c)(d)(e) | 18. (a)(b)(c)(d)(e) |                     |                     |

19. **DETERIORATED**

- (a) Reduced (b) Moderated  
(c) Depreciated (d) Encouraged  
(e) Recovered

20. **BANISHED**

- (a) Secluded (b) Embraced (c) Included  
(d) Loved (e) Delivered

21. **BEFRIENDED**

- (a) recoiled (b) killed (c) accepted  
(d) mistrusted (e) ignored

22. **FRAIL**

- (a) Unhealthy (b) Massive (c) Rich  
(d) Robust (e) Civilised

23. **SPLENDIDLY**

- (a) Wisely (b) Unfairly (c) Rudely  
(d) Reluctantly (e) Unimpressively

24. **CHARMED**

- (a) Offended (b) Stunned (c) Repulsed  
(d) Jealous (e) Outraged

25. **AVID**

- (a) unenthusiastic (b) efficient (c) boring  
(d) impartial (e) incompetent

**Directions :** In these questions, you find a number of sentences, part of which is underlined. You may also find only a group of words which is underlined. For each underlined part, four words/phrase are listed below. Choose the word which is nearest of the opposite of the underlined word or phrase.

26. He plunged into the turbid waters of the stream.

- (a) deep (b) muddy (c) clear  
(d) fresh (e) None of these

27. Where ignorance is sometimes bliss, illiteracy is always considered a curse.

- (a) erudition (b) experience (c) education  
(d) information (e) None of these

28. The news brought by the maidservants authentic.

- (a) authoritative (b) baseless (c) ridiculous  
(d) vacuous (e) None of these

29. The proposal was denounced by one and all.

- (a) announced (b) pronounced (c) appraised  
(d) commended (e) None of these

30. The doctor said that there is no improvement in the condition of the patient.

- (a) depression (b) deterioration (c) change  
(d) degradation (e) None of these

**RESPONSE  
GRID**

19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e) 21. (a)(b)(c)(d)(e) 22. (a)(b)(c)(d)(e) 23. (a)(b)(c)(d)(e)  
24. (a)(b)(c)(d)(e) 25. (a)(b)(c)(d)(e) 26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e)  
29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)



## ONE WORD SUBSTITUTION

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Direction (1-30):** In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

1. List of headings of the business to be transacted at a meeting
  - (a) Schedule
  - (b) Agenda
  - (c) Proceedings
  - (d) Excerpts
  - (e) None of these
2. Through which light cannot pass
  - (a) Dull
  - (b) Dark
  - (c) Obscure
  - (d) Opaque
  - (e) None of these
3. Stealing from the writings of others
  - (a) Copying
  - (b) Reframing
  - (c) Reproducing
  - (d) Plagiarism
  - (e) None of these
4. Constant effort to achieve something
  - (a) Perseverance
  - (b) Attempt
  - (c) Enthusiasm
  - (d) Vigour
  - (e) None of these
5. A person not sure of the existence of God
  - (a) Theist
  - (b) Atheist
  - (c) Agnostic
  - (d) Cynic
  - (e) None of these
6. One who deserts his religion
  - (a) Deserter
  - (b) Turn-coat
  - (c) Fanatic
  - (d) Apostate
  - (e) None of these
7. One who uses fear as a weapon of power
  - (a) Terrorist
  - (b) Militant
  - (c) Extremist
  - (d) Anarchist
  - (e) None of these
8. The original inhabitants of a country
  - (a) Aborigines
  - (b) Citizens
  - (c) Natives
  - (d) Primitive
  - (e) None of these
9. One desirous of getting money
  - (a) Avaracious
  - (b) Voracious
  - (c) Garrulous
  - (d) Greedy
  - (e) None of these
10. Be the embodiment or perfect example of
  - (a) Signify
  - (b) Characterise
  - (c) Personify
  - (d) Masquerade
  - (e) None of these
11. Cutting for stone in the bladder
  - (a) Dichotomy
  - (b) Tubectomy
  - (c) Vasectomy
  - (d) Lithotomy
12. That which makes it difficult to recognise the presence of real nature of somebody or something
  - (a) Cover
  - (b) Mask
  - (c) Pretence
  - (d) Camouflage
  - (e) None of these
13. Yearly celebration of a date or an event
  - (a) Centenary
  - (b) Jubilee
  - (c) Anniversary
  - (d) Birthday
  - (e) None of these
14. One who has suddenly gained new wealth, Power or prestige
  - (a) Aristocrat
  - (b) Affluent
  - (c) Maverick
  - (d) Parvenu
  - (e) None of these
15. Code of diplomatic etiquette and precedence
  - (a) Formalism
  - (b) Statesmanship
  - (c) Protocol
  - (d) Hierarchy
  - (e) None of these
16. Of outstanding significance
  - (a) Meaningful
  - (b) Ominous
  - (c) Evident
  - (d) Monumental
  - (e) Rational
17. One who promotes the idea of absence of government of any kind, when every man should be a law into himself
  - (a) Anarchist
  - (b) Belligerent
  - (c) Iconoclast
  - (d) Agnostic
  - (e) None of these
18. Land so surrounded by water as to be almost an island
  - (a) Archipelago
  - (b) Isthmus
  - (c) Peninsula
  - (d) Lagoon
  - (e) None of these

RESPONSE  
GRID

- |     |                 |     |                 |     |                 |     |                 |     |                 |
|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|
| 1.  | (a)(b)(c)(d)(e) | 2.  | (a)(b)(c)(d)(e) | 3.  | (a)(b)(c)(d)(e) | 4.  | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6.  | (a)(b)(c)(d)(e) | 7.  | (a)(b)(c)(d)(e) | 8.  | (a)(b)(c)(d)(e) | 9.  | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |
| 11. | (a)(b)(c)(d)(e) | 12. | (a)(b)(c)(d)(e) | 13. | (a)(b)(c)(d)(e) | 14. | (a)(b)(c)(d)(e) | 15. | (a)(b)(c)(d)(e) |
| 16. | (a)(b)(c)(d)(e) | 17. | (a)(b)(c)(d)(e) | 18. | (a)(b)(c)(d)(e) |     |                 |     |                 |

19. That which cannot be done without  
 (a) Irrevocable (b) Impracticable  
 (c) Indispensable (d) Impossible  
 (e) None of these
20. One who travels from place to place  
 (a) Itinerant (b) Mendicant  
 (c) Journeyman (d) Tramp  
 (e) None of these
21. He spent a long time *cutting* all the waste paper *into pieces*.  
 (a) slashing (b) ripping (c) shredding  
 (d) disposing (e) None of these
22. We are *looking forward to* a good winter this year.  
 (a) encouraging (b) getting (c) hoping  
 (d) predicting (e) visualising
23. Rajesh was a *hater of learning and knowledge*.  
 (a) misogynist (b) misologist  
 (c) misanthropist (d) bibliophile  
 (e) None of these
24. Ravi impressed everyone with his *persuasive and fluent speech*.  
 (a) discourse (b) expression (c) eloquence  
 (d) lecture (e) None of these
25. The bus has *to go back and forth every six hours*.  
 (a) travel (b) run (c) cross  
 (d) shuttle (e) commute
26. A man can be sentenced to death for *killing another human being*.  
 (a) fratricide (b) regicide (c) homicide  
 (d) genocide (e) None of these
27. A *careful preservation and protection* of wildlife is the need of the hour.  
 (a) Embarkment (b) Promotion  
 (c) Conservation (d) Management  
 (e) Enhancement
28. The officer was *not willing to take a definite stand* on that point.  
 (a) vague (b) evasive  
 (c) ambiguous (d) complex  
 (e) None of these
29. He does unpaid work for the Red Cross.  
 (a) honorific (b) honest (c) honorary  
 (d) honourable (e) None of these
30. The advertisement assured the public that the medicine would give back to the users, *their youthful vigour and appearance*.  
 (a) rejuvenate (b) restore (c) replenish  
 (d) render (e) None of these

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 19. (a) (b) (c) (d) (e) | 20. (a) (b) (c) (d) (e) | 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) | 23. (a) (b) (c) (d) (e) |
| 24. (a) (b) (c) (d) (e) | 25. (a) (b) (c) (d) (e) | 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) | 28. (a) (b) (c) (d) (e) |
| 29. (a) (b) (c) (d) (e) | 30. (a) (b) (c) (d) (e) |                         |                         |                         |



101 SPEED TEST

65

com

## SUBJECT-VERB AGREEMENT

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Direction :** Read each sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. The number of this part is the answer. If there is no error, the answer is (e).

1. A band of musician (a) / have been engaged (b) / for the (c) inauguration function. (d) / (e)
2. The number (a) / of persons interested (b) / in psychology are (c) / generally small. (d) / No Error (e)
3. The manager's comments (a) / on the preparation of the test matches (b) / for this tour (c) / has been generally praised. (d) / No Error (e)
4. The details (a) / of the incident (b) / was not known (c) / to me. (d) / No Error (e)
5. The majority of (a) / writers never (b) / passes (c) / this stage. (d) / No Error (e)
6. A large part of (a) / the distinctive features (b) / of the mind is due to its being (c) / an instrument of communication. (d) / No Error (e)
7. A part of (a) / the mango (b) / are (c) / rotten. (d) / No Error (e)
8. A part of (a) / the mangoes (b) / are (c) / rotten. (d) / No Error (e)
9. The governing body at (a) / its first meeting (b) / have decided (c) / to conduct the test again. (d) / No Error (e)
10. The banker's association (a) / has submitted a memorandum (b) / for the fulfilment of (c) / their demands. (d) / No Error (e)
11. Five quintals of wooden coal (a) / are (b) / his annual requirement (c) / for the unit. (d) / No Error (e)
12. Dickens have (a) / vehemently criticised (b) / the philosophy (c) in 'Hard Times'. (d) / No Error (e)
13. All his money (a) / is spent (b) / and all his (c) / hopes ruined. (d) / No Error (e)
14. This rule may (a) / and ought to be (b) / disregarded for (c) / the time being. (d) / No Error (e)
15. He is one of the (a) richest man (b) / if not the richest man (c) / in the world. (d) / No Error (e)
16. We can almost get (a) / everything in (b) / this market (c) / at reasonable price. (d) / No Error (e)
17. Every (a) Tom, Dick and Harry (b) drink (c) / wine these days. (d) / No Error (e)
18. He and I (a) / is partners in (b) the firm (c) / named 'Unique builders'. (d) No Error (e)
19. He is one of the (a) / great man (b) that have (c) ever lived. (d) / No Error (e)
20. The magistrate and collector (a) were (b) / present there (c) / on the spot. (d) / No Error (e)

RESPONSE  
GRID

- |     |                     |     |                     |     |                     |     |                     |     |                     |
|-----|---------------------|-----|---------------------|-----|---------------------|-----|---------------------|-----|---------------------|
| 1.  | (a) (b) (c) (d) (e) | 2.  | (a) (b) (c) (d) (e) | 3.  | (a) (b) (c) (d) (e) | 4.  | (a) (b) (c) (d) (e) | 5.  | (a) (b) (c) (d) (e) |
| 6.  | (a) (b) (c) (d) (e) | 7.  | (a) (b) (c) (d) (e) | 8.  | (a) (b) (c) (d) (e) | 9.  | (a) (b) (c) (d) (e) | 10. | (a) (b) (c) (d) (e) |
| 11. | (a) (b) (c) (d) (e) | 12. | (a) (b) (c) (d) (e) | 13. | (a) (b) (c) (d) (e) | 14. | (a) (b) (c) (d) (e) | 15. | (a) (b) (c) (d) (e) |
| 16. | (a) (b) (c) (d) (e) | 17. | (a) (b) (c) (d) (e) | 18. | (a) (b) (c) (d) (e) | 19. | (a) (b) (c) (d) (e) | 20. | (a) (b) (c) (d) (e) |

- 21. Horse and carriage (a) / are (b) / waiting there (c) for the couple. (d) / No Error (e)
- 22. Rice and fish (a) / are (b) / my (c) / favourite dish. (d) / No Error (e)
- 23. "Under no circumstances (a) / I can help you in (b) / this venture," said Sita. (d) / No Error (e)
- 24. "I don't like (a) / such a bright colour (b) / nor she does," (c) / said to Ram. (d) / No Error (e)
- 25. Every member of (a) / his family is (b) / addicted to gambling (c) / and so John is. (d) / No Error (e)
- 26. Never before (a) / I had been asked (b) / to go there (c) / by bus. (d) / No Error (e)
- 27. On no account (a) / this switch must (b) / be touched (c) / by you. (d) / No Error (e)
- 28. "Seldom I had seen (a) / such a (b) / beautiful girl," (c) / said Mohanti. (d) / No Error (e)
- 29. Under a tree (a) / was sleeping an (b) old lady (c) with her young child. (d) / No Error (e)
- 30. To such a degree (a) / he created (b) the problems that (c) people thrashed him. (d) / No Error (e)

<b>RESPONSE GRID</b>	<b>21.</b> (a) (b) (c) (d) (e)	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e)	<b>27.</b> (a) (b) (c) (d) (e)	<b>28.</b> (a) (b) (c) (d) (e)	<b>29.</b> (a) (b) (c) (d) (e)	<b>30.</b> (a) (b) (c) (d) (e)



101 SPEED TEST

66

**CORRECT USAGE OF PREPOSITIONS**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1-30) :** Read each sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. The number of this part is the answer. If there is no error, the answer is (e)

1. He was sleeping (a) / in his room when a thief (b) / entered into his house (c) / and took away a lot of things. (d) / No Error (e)
2. In her concluding speech (a) / she said (b) / almost nothing (c) / worth listening to. (d) / No Error (e)
3. It was apparent for (a) / everyone present (b) / that if the patient did not receive (c) / immediate medical aid he would die. (d) / No Error (e)
4. He proposed me (a) / that we should go to the Disco (b) / and then have (c) / dinner at a restaurant. (d) / No Error (e)
5. There appears (a) / to be a little liaison (b) / among the (3) / two groups of the society. (d) / No Error (e)
6. The team (a) / complained to the manager (b) / against the captain (c) / and the poor facilities provided in the hotel. (d) / No Error (e)
7. Yesterday I met (a) / a man (b) / who was blind (c) / with the right eye. (d) / No Error (e)
8. The principal distributed (a) / the sweet among (b) / our friends (c) / who bade him farewell. (d) / No Error (e)
9. As per the invitation card (a) / Rahim marries (b) / with Sayra (c) / on 13th December, Monday. (d) / No Error (e)
10. The debatable of the Congress party (a) / admits no other explanation (b) / than its (c) poor performance during the last five years. (d) / No Error (e)
11. The society does not (a) / hold itself responsible (b) / for the loss or damage to (c) / any item. (d) / No Error (e)
12. In spite of being (a) / very busy at project work (b) / he saves time (c) to the relatives. (d) / No Error (e)
13. Some persons (a) / get promotions (b) / even if they are not (c) / worthy for them. (d) / No Error (e)
14. While he was returning (a) / from the office (b) / a man attacked on (c) / him with a dagger. (d) / No Error (e)
15. The decline of her moral (a) / was caused by a lot of (b) / factors that were once (c) / fascinating to her. (d) / No Error (e)
16. He took me to a restaurant (a) / and ordered for two cups (b) / of cold coffee (c) / which the waiter brought in an hour. (d) / No Error (e)
17. There are some animals (a) / that can live (b) / both in water an land (c) / without any difficulty. (d) / No Error (e)
18. During his tour (a) / to the south (b) he visited not only to Chennai (c) / but also Karnataka. (d) / No Error (e)
19. The President Mr. Kalam (a) / is much sought after (b) / by school students and (c) / is invited for many functions. (d) / No Error (e)
20. His mother is not well (a) / but he (b) / does not look for her (c) / properly. (d) / No Error (e)

<b>RESPONSE GRID</b>	1. (a) (b) (c) (d) (e)	2. (a) (b) (c) (d) (e)	3. (a) (b) (c) (d) (e)	4. (a) (b) (c) (d) (e)	5. (a) (b) (c) (d) (e)
	6. (a) (b) (c) (d) (e)	7. (a) (b) (c) (d) (e)	8. (a) (b) (c) (d) (e)	9. (a) (b) (c) (d) (e)	10. (a) (b) (c) (d) (e)
	11. (a) (b) (c) (d) (e)	12. (a) (b) (c) (d) (e)	13. (a) (b) (c) (d) (e)	14. (a) (b) (c) (d) (e)	15. (a) (b) (c) (d) (e)
	16. (a) (b) (c) (d) (e)	17. (a) (b) (c) (d) (e)	18. (a) (b) (c) (d) (e)	19. (a) (b) (c) (d) (e)	20. (a) (b) (c) (d) (e)

- 21. We may have to await for (a) / a new political revival (b) / to eradicate the (c) / corruption from our economy. (d) / No Error (e)
- 22. When she was (a) / in jail (b) / she was debarred to send (c) / a letter even to her son. (d) / No Error (e)
- 23. Despite of the best efforts (a) / put by the doctors (b) / the condition of the patient (c) / is deteriorating from bad to worse. (d) / No Error (e)
- 24. The militant yielded for (a) / the temptation and fell (b) / into the trap (c) / of police. (d) / No Error (e)
- 25. Many people in India (a) / are dying from hunger (b) / but government seems (c) / to be ignorant of such crude fact. (d) / No Error (e)
- 26. In difficult time (a) she prefers keeping her counsel (b) rather than wandering (c) / here and there for relief. (d) / No Error (e)
- 27. The persons who are (a) / suffering from diabetes are (b) / advised to substitute (c) / saccharine by sugar. (d) / No Error (e)
- 28. He always says (a) / that he prefers to go (b) / home to stay in (c) / a hotel at night. (d) / No Error (e)
- 29. Hardly had we settled down (a) / for the rest (b) / when we were startled by the (c) / strange sound of trumpets. (d) / No Error (e)
- 30. He was able to (a) / free himself with (b) / the debts by (c) / working day and night. (d) / No Error (e)

<b>RESPONSE GRID</b>	21. (a) (b) (c) (d) (e)	22. (a) (b) (c) (d) (e)	23. (a) (b) (c) (d) (e)	24. (a) (b) (c) (d) (e)	25. (a) (b) (c) (d) (e)
	26. (a) (b) (c) (d) (e)	27. (a) (b) (c) (d) (e)	28. (a) (b) (c) (d) (e)	29. (a) (b) (c) (d) (e)	30. (a) (b) (c) (d) (e)





**CORRECT ORDER OF TENSES IN A SENTENCE**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1 to 7) :** Below each sentence has given four possible substitutions for the *bold* part. If one of them (a), (b), (c) or (d) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b), (c) or (d). If none of the substitutions improves the sentence, indicate (e) as your response on the Answer Sheet. Thus a 'No' improvement' response will be signified by the letter (e).

1. **I laid all the facts before him** so that he could make his own Judgement.  
 (a) laid all the facts in front of him  
 (b) lay all the facts before him  
 (c) lay all the facts in front of him  
 (d) did I lay all the facts before his  
 (e) No improvement
2. If only she had told me about her problem I **would have helped her**.  
 (a) would help (b) could help  
 (c) had helped (d) would not help  
 (e) No improvement
3. Apollo was worshipped as long as the Roman Empire **continued**.  
 (a) was continued (b) ruled (c) lasted  
 (d) did not exist (e) No improvement
4. The patient **could have been saved** if he had been taken to the hospital in time.  
 (a) could be saved (b) could save  
 (c) had been saved (d) can saved  
 (e) No improvement
5. Knowing very little English, **it was difficult to converse** with the foreigner.  
 (a) I found it difficult to converse  
 (b) to converse was difficult  
 (c) conversing was difficult  
 (d) It was not easy to conversed  
 (e) No improvement
6. The father together with his sons and daughters **have gone** to see a film.  
 (a) are gone (b) has gone (c) is gone  
 (d) is going (e) No improvement
7. The stranger asked the little girl **what is her name**.  
 (a) What her name is (b) What her name was  
 (c) What was her name (d) Her name is what  
 (e) No improvement
8. The honourable court **had taken a leniency view** because the accused had no previous criminal record.  
 (a) had viewed leniency  
 (b) had taken a leniency viewing  
 (c) had taken a lenient view  
 (d) took a lenient view  
 (e) No correction required
9. The government should launch such projects which **should reversible** the destructive cycle of flood and drought.  
 (a) should have reversible  
 (b) should be reverse  
 (c) should have been reverse  
 (d) should reverse  
 (e) No correction required
10. A committee comprising eminent experts from various fields **were setting up**.  
 (a) was set up (b) were being set up  
 (c) was setting up (d) was being set up  
 (e) No correction required
11. Our foreign exchange reserves **have been increased substantial**.  
 (a) have been increased substantially  
 (b) have increased substantially  
 (c) have substantially increasing  
 (d) had increased substantially  
 (e) No correction required
12. Every novel activity **will be likely to face** resistance from vested interests.  
 (a) is likely to face (b) will be likely facing  
 (c) would be like facing (d) would like to face  
 (e) No correction required
13. All human beings **are vulnerable to** greed and temptations.  
 (a) are vulnerable for (b) have vulnerability of  
 (c) were vulnerable at (d) have been vulnerable with  
 (e) No correction required
14. **How did the burglar got** into the bank is a mystery.  
 (a) How did the burglar get  
 (b) What did the burglar get  
 (c) How the burglar got  
 (d) Why did the burglar get  
 (e) No correction required
15. In any serious investigation, all points of suspicions **should check properly**.  
 (a) must check properly  
 (b) should be checked properly  
 (c) should properly check  
 (d) must properly check  
 (e) No correction required

**Directions (Qs. 8 to 17) :** Which of the phrases (a) , (b), (c) , (d) and (e) given below each sentence should replace the phrase given in bold in the following sentence to make the sentence grammatically correct if it has an error in it? If the sentence is correct as it is and no correction is required, mark (e) i.e. 'No correction required' as the answer.

<b>RESPONSE GRID</b>	1. (a)(b)(c)(d)(e)	2. (a)(b)(c)(d)(e)	3. (a)(b)(c)(d)(e)	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)
	6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)

16. Several of our projects **have delayed because** the equipment we ordered was delivered late.  
 (a) have been delayed when  
 (b) delayed because of  
 (c) are delayed since  
 (d) were delayed with  
 (e) No correction required
17. People **should be have their own** mechanism to guard against the activities of unscrupulous elements.  
 (a) shall be have their own  
 (b) should be having its own  
 (c) should have owning its  
 (d) should have their own  
 (e) No correction required
- 
- Directions (Qs. 18-30):** In each of these questions, in the given sentences, a part of the sentence is bold. Beneath each sentence, four different ways of phrasing the bold part are indicated. Choose the best alternative.
18. **We want the teacher to be him** who has the best rapport with the students.  
 (a) We want the teacher to be he  
 (b) We want him to be the teacher  
 (c) We desire the teacher to be him  
 (d) We anticipate the teacher to be him  
 (e) None of these
19. Today this is a totally different world **than we have seen** in the last decade.  
 (a) than what we seen  
 (b) then we have seen  
 (c) from what we seen  
 (d) from what we have seen  
 (e) None of these
20. Although he was the most friendly of all present and **different from the others, he hadn't hardly any friends except me.**  
 (a) different from the others, he hardly had any friends except I  
 (b) different than the others, he hardly had any friends except me  
 (c) different than the others, he hardly had any friends except I  
 (d) different from the others, he hardly had any friends except me  
 (e) None of these
21. **Since we are living** in Bombay for five years, we are reluctant to move to another city.  
 (a) Being that we living  
 (b) Since we were living  
 (c) Since we have been living  
 (d) Being that we have been living  
 (e) None of these
22. **As a child, my parents took me to Jammu to visit my grandmother.**  
 (a) When I was a child, my parents took me to Jammu to visit my grandmother  
 (b) My parents took me, as a child, to Jammu to visit my grandmother  
 (c) My parents took me to Jammu to visit my grandmother as a child.  
 (d) A child, my parents took me to Jammu to visit my grandmother  
 (e) None of these
23. **Anyone interested in the use of computer can learn much if you have access to** a state-of-the microcomputer.  
 (a) if he has access to (b) if access is available to  
 (c) by access to (d) from access to  
 (e) None of these
24. **No matter what experience you have had with forest fires, if you would have witnessed** the fire roaring down through the canyon, you would have been terrified.  
 (a) if you witnessed  
 (b) if you had witnessed  
 (c) if you could witness  
 (d) if you will have witnessed  
 (e) None of these
25. The bank has hired a consultant who **will look into** any issues which arise during the merger.  
 (a) is looking over (b) will be looked after  
 (c) will look out (d) looks down on  
 (e) No correction required
26. Ramesh **worries endlessly** about his son's future as he was so poor in studies.  
 (a) worry endless (b) worried endless  
 (c) worried endlessly (d) worries endless  
 (e) No correction required
27. The little boy appeared all of a sudden out of nowhere and **take everyone by surprise.**  
 (a) took everyone as surprised  
 (b) take everyone with surprised  
 (c) took everyone by surprises  
 (d) took everyone by surprise  
 (e) No correction required
28. **All she could think** about was the beautiful dress and how she could earn enough money to buy it.  
 (a) All she can think (b) All she could thought  
 (c) All she can thought (d) All she can thinking  
 (e) No correction required
29. Mohan **had make up his mind** about going on the world tour all alone.  
 (a) made minds (b) make his mind  
 (c) make up his minding (d) made up his mind  
 (e) No correction required
30. She rushed to the station but **could find any trace** of her daughter there.  
 (a) not found trace (b) find no trace  
 (c) found not trace (d) finding no trace  
 (e) No correction required

**RESPONSE  
GRID**

16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)
21. (a)(b)(c)(d)(e)	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)
26. (a)(b)(c)(d)(e)	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)



101 SPEED TEST

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## PARALLELISM

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

Directions (Qs.1-20): Choose the correct option for the underlined sentence or the part of sentence. Make sure to follow the rules of parallel structure.

1. His colleagues appreciated both his determination and the attention he paid to the detail.
  - (a) and the way he paid attention to detail.
  - (b) and his attention to detail.
  - (c) and also praised his attention to detail.
  - (d) also they praised his attention to detail.
  - (e) None of the above.
2. Latika likes square dancing and to write poetry.
  - (a) and writing poetry.
  - (b) and also like to write poetry.
  - (c) and she likes to write poetry.
  - (d) and like to write poetry as well.
  - (e) None of the above.
3. Rohan is an expert in both international history and also in hardware engineering.
  - (a) and hardware engineering as well.
  - (b) and in hardware engineering.
  - (c) and in hardware also.
  - (d) and hardware engineering.
  - (e) None of the above.
4. Most of the Indians either have a television in their bedroom or wanting to put one there.
  - (a) or want to put one there.
  - (b) or are wanting to put one there.
  - (c) or also want to put one there.
  - (d) or putting one there.
  - (e) None of the above.
5. Ajay vowed that during his vacation, he would do nothing but sleeping, fishing and watch movies.
  - (a) but sleep, do fishing and watch a movie.
  - (b) but sleeping, fishing and also watching a movie.
  - (c) but sleep, fish and watch movies.
  - (d) both b and c.
  - (e) None of the above.
6. We were told to stay at the police station and that we should have our identification ready.
  - (a) and to have our identification ready.
  - (b) and have our identification ready.
  - (c) and we should have our identification ready.
  - (d) Both a and c.
  - (e) None of the above.
7. In Sachin's house, no one is allowed to smoke, wear shoes, or to eat in the living room.
  - (a) wear shoes or eating on the living room.
  - (b) to wear shoes, or to eat in the living room.
  - (c) or wear shoes, or eat in the living room.
  - (d) wear shoes and not to eat in the living room.
  - (e) None of the above.
8. In Spain, Vikas stayed in hotels that were of a modern nature, had comfortable furnishings, and less expensive.
  - (a) Vikas stayed in hotels that were of a modern nature, comfortable furnishings, and less expensive.
  - (b) Vikas stayed in hotels that were modern, comfortable and less expensive.
  - (c) Vikas stayed in hotels that were having modern nature, had comfortable furnishings, and less expensive.
  - (d) Vikas stayed in hotels that were of a modern nature, comfortable furnishings and also less expensive.
  - (e) None of the above.
9. The suit was brightly colored, and the stitches were small, and neat, and they were spaced evenly.
  - (a) The quilt was of a bright color, with small stitches that were neat and were evenly spaced.
  - (b) The quilt was brightly color, with small stitching and that were neat and evenly spaced.
  - (c) The quilt was of a bright color, with small stitches that were neat and evenly spaced.
  - (d) The quilt was of a bright color, with small stitches that were neat and evenly spaced.
  - (e) None of the above.
10. Vicky said that he didn't have the time, nor was he interested in learning to drive.
  - (a) Vicky said that he had neither the time nor the interest in learning to driving.
  - (b) Vicky said that he neither had the time nor the interest in learning to drive.
  - (c) Vicky said that he does not have the time nor interested in learn to drive.
  - (d) Both a and c.
  - (e) None of the above.

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)

11. In her cooking class, Madhuri learned to blending exotic spices, to substitute ingredients, and to set an attractive table.
  - (a) Madhuri learned to blend exotic spices and substituting ingredients, and to set an attractive table.
  - (b) Madhuri learned to blending exotic spices, to substitute ingredients, and to set an attractive table.
  - (c) Madhuri learned to blend exotic spices, to substitute ingredients, and to set an attractive table.
  - (d) Madhuri learned to blend exotic spices, substitution of ingredients, and to setting an attractive table.
  - (e) None of the above.
12. The health gym offers something for everybody: exercise equipment, aerobics classes and a swimming pool.
  - (a) everybody: exercise equipment, aerobics classes, and a swimming pool.
  - (b) everybody: exercise equipment, aerobics classes, and there is a swimming pool.
  - (c) everybody: exercise equipment, also aerobics classes, and there is a swimming pool too.
  - (d) everybody: exercise equipment, and aerobics classes as well as there is a swimming pool.
  - (e) None of the above.
13. During the drive along the highway, we are amazed both by the snowcapped mountains on one side and also the beautiful lakes on the other.
  - (a) we were amazed by the snowcapped mountains on one side and the beautiful lakes on the other.
  - (b) we got amazed both with the snowcapped mountains on the one side and the beautiful lakes on the other as well.
  - (c) we were amazed by both the snowcapped mountains on one side, the beautiful lakes on the other.
  - (d) Both a and c.
  - (e) None of the above.
14. All these desserts are not only fattening and they are also high in cholesterol.
  - (a) desserts are not only fattening, but they're also high in cholesterol too.
  - (b) desserts are not only fattening, but they are also high in cholesterol.
  - (c) desserts are not only fattening, but also high in cholesterol.
  - (d) desserts are not only fattening and also high in cholesterol.
  - (e) None of the above.
15. Picasso's painting has subtle color contrasts, also has intriguing textures, and a pleasing balance.
  - (a) subtle color contrasts, the textures are intriguing, and a pleasing balance.
  - (b) subtle color contrasts, intriguing textures, and the balance is pleasing.
  - (c) subtle color contrasts, intriguing textures and a pleasing balance.
  - (d) All the above.
  - (e) None of the above.
16. He could work on the project as he is both interested in it and also he is familiar with the problems involved.
  - (a) He could work on the project as he is both interested in it and familiar with the problems involved.
  - (b) He could work on the project as he is both interested in it and has some familiarity with the problems involved.
  - (c) He could work on the project as he is both interested in it and familiar with the problems involved.
  - (d) He could work on the project as he is both interested in it and familiar with the problems involved also.
  - (e) None of the above.
17. At first, Bajaj's sewing machine was considered both to be very expensive and also too complicated to use for general use.
  - (a) Bajaj's sewing machine was considered both expensive and also complicated to use for general use.
  - (b) Bajaj's sewing machine was considered to be very expensive and too complicated for general use.
  - (c) Both a and b.
  - (d) Bajaj's sewing machine was considered to be very expensive, but too complicated for general use.
  - (e) None of the above.
18. Julia's parents told her that she must agree to either attend the college or either to work in the family business.
  - (a) either attend the college or to work in the family business.
  - (b) either attend college or working in the family business.
  - (c) either attending college or to work in the family business.
  - (d) All the above.
  - (e) None of the above.
19. Ritik is not only an excellent actor but he sings.
  - (a) Ritik is not only an excellent actor but he also sings.
  - (b) Ritik is not only an excellent actor but also a good singer.
  - (c) Ritik is not only an excellent actor but he is also a good singer.
  - (d) All the above.
  - (e) None of the above.
20. We'll never forget the principal, who never had a kind word for anyone, who had no sympathy, was short tempered, and cruel.
  - (a) We'll never forget the principal, who was cruel, unsympathetic, was short tempered, and who never had a kind word for anyone.
  - (b) We'll never forget the cruel, unsympathetic, short tempered principal, who never had a kind word for anyone.
  - (c) We'll never forget the principal who is cruel, unsympathetic, and also short-tempered, and who never had a kind word for anyone.
  - (d) We'll never forget the principal who was also cruel, was unsympathetic, was short-tempered, and who also never had a kind word for anyone.
  - (e) None of the above.

<b>RESPONSE GRID</b>	11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)
	16. (a)(b)(c)(d)(e)	17. (a)(b)(c)(d)(e)	18. (a)(b)(c)(d)(e)	19. (a)(b)(c)(d)(e)	20. (a)(b)(c)(d)(e)



101 SPEED TEST

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## READING COMPREHENSION - I

Max. Marks : 30

No. of Qs. 30

Time : 30 min.

Date : ...../...../.....

**Directions (Qs. 1 to 8) :** Read the following passage carefully and answer the questions given below it. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.

A few weeks ago, a newspaper article quoted a well known scientist saying, "IT has destroyed Indian science". One can **speculate** about the various ways in which the growth of the IT sector and other similar knowledge industries such as biotechnology has led to a decline in basic scientific research in India.

The most obvious reason is money; pay scales in IT and BT are much higher than one can aspire to in academia. The argument goes: why should a **bright** B. Tech, or M.Sc. Student enroll in a Ph.D. programme when she can make a lot more money writing code? Not only does a **fresh** IT employee make a lot more than a fresh M. Tech. Student, his/her pay will rise much faster in IT than in academia. A professor's pay at a government-run university, even after the Sixth Pay Commission, tops out at far less than a senior executive's salary in a major industry.

Second, the social Status of IT and BT Jobs equal or even exceed the social status of corresponding academic positions, since they are seen as knowledge industries, which plays to the best and worst instincts of the societal Order. As **quintessential** white collar professions, neither do they compel a successful entrepreneur to resort to violence and corruption, nor do they demand any physical labour. Unlike real estate or road construction, it is felt that IT workers can become rich while staying honest and sweat-free.

Assuming that the labour pool for academia and IT is roughly the same, the difference in our collective preferences biases the labour market towards IT and away from academia. Further, when the imbalance between IT and academia continues for years and even decades, a destructive loop, from academia's point of view, is created. When our best and brightest take IT jobs over academic ones for a decade or more, faculty positions in our universities and research centres are no longer filled by the best candidates.

As faculty quality goes down, so does the capacity to train top-class graduate students who, after all, are teachers in training. In response to decreasing faculty quality, even those students who otherwise choose an academic profession, decide to join industry Or go abroad for their studies. These foreign trained graduates prefer to come back to corporate India — if at all they do come back — and the downward cycle replicates itself in each generation. In other words, academia is trapped within a perfect storm created by a combination of social and economic factors.

In this socio-economic calculus, the members of our societal classes should prefer an IT job to an academic one. Or, to put it

another way, the knowledge economy, i.e., the creation of knowledge for profit, trumps the knowledge society, i.e., the creation of knowledge for its own sake or the sake of the greater good. As is said, "knowledge is power, but money is even more power." Perhaps the scientist was **alluding** to this victory of capitalism over the pursuit of pure knowledge when he accused IT of having a negative influence on Indian science.

Surely, knowledge has become a commodity like any other and as a result, knowledge workers are like any other labourers, who will seil their wares to the highest bidder. One Solution is to accept and even encourage the commoditization of knowledge; if so, Indian universities and research centres should copy their western counterparts by becoming more and more like corporations. These centres of learning should convert themselves into engines of growth. In this logic, if we increase academic salaries and research grants to match IT paycheques we will attract good people into academia, where, in any case, it is rumoured that a certain **elusive** feeling called 'the quality of life' is better.

- According to the passage what did the scientist actually mean when he said, "IT has destroyed Indian Science?"
  - The centres meant for Scientific research are being utilized by IT industries
  - The IT industry does not employ people pursuing higher studies
  - As information is readily available on the internet because of IT, there is no need to seek further information
  - IT has distorted the truth as stated by Indian science
  - The desire for money has overshadowed the search for knowledge
- Which of the following is possibly the most appropriate title for the passage ?
  - Is the Future of IT Bright ?
  - The IT Industry and the World Economy
  - Research and Academics — Losing the Battle Against IT
  - Scientific Research and the Need for Well — Trained Faculty
  - Information Technology and its Advantages
- Why does the author say that knowledge has become a commodity?
  - As it is no longer desirable in any professional field
  - As there are too many educational Institutes in the country which do not provide quality education
  - As knowledge is now available easily as compared to the past
  - As knowledgeable people seil their Services for the highest price possible
  - Like commodities knowledge too becomes stale after a certain period

RESPONSE  
GRID

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)

4. What, according to the author, is a destructive loop ?
- Many people quit their existing jobs to work in the IT industry which in turn leads to the downfall of the other industries.
  - The fact that the best minds do not want to become teachers and this in turn leads to good students seeking knowledge elsewhere
  - The fact that people working in the IT industry do not pursue higher studies which in turn leads to the deterioration in quality of employees
  - The unending use of resources by the IT industry leading to a dearth of resources in the country
  - Less grants are being provided by the Government to academic institutes which in turn leads to poor quality students joining the same
5. Which of the following mentioned below is/are the author's suggestion/s to promote interest in Indian academic ?
- Research centres should adopt the corporate culture as is done in the West.
  - Lessening the number of research grants given.
  - Making academic salaries equivalent to those paid in IT Industries.
- Only (C)
  - Only (A)
  - Only (B) and (C)
  - Only (A) and (C)
  - None of these
6. Which of the following is NOT TRUE in the context of the passage?
- It is believed that the quality of life is better when pursuing scientific research.
  - People currently seek knowledge only for the greater good of the society
  - Money is not perceived to be as powerful as knowledge.
- Only (A) and (C)
  - Only (B)
  - Only (A) and (B)
  - Only (B) and (C)
  - All (A), (B) and (C)
7. Which of the following according to the author, are factors responsible for the declining interest in scientific research?
- Slower progress of work in research
  - Lesser monetary compensation in research related activities
  - Societal perception towards research
- Only (A)
  - Only (C)
  - Only (B) and (C)
  - Only (A) and (B)
  - All (A), (B) and (C)
8. Which of the following is **true** about the perception towards IT jobs as given in the passage ?
- They are physically tiring.
  - They are considered to be managerial level jobs.
  - They require usage of dishonest means.
- Only (B)
  - Only (A) and (B)
  - Only (C)
  - Only (B) and (C)
  - All (A), (B) and (C) are true

**Directions (Qs. 9-12) :** Choose the word/group of words which is most SIMILAR in meaning to the word /group of words printed in bold as used in the passage.

9. **CAPACITY**
- qualification
  - capability
  - voltage
  - quantity
  - volume
10. **ALLUDING**
- referring
  - breaking
  - escaping
  - imposing
  - clinging
11. **SPECULATE**
- visit
  - contemplate
  - remark
  - argue
  - regulate
12. **QUINTESENTIAL**
- typical
  - different
  - necessary
  - unique
  - excellent

**Directions (Qs. 13 to 15) :** Choose the word/group of words which is most OPPOSITE in meaning to the word/ group of words printed in bold as used in the passage.

13. **BRIGHT**
- soft
  - dark
  - dull
  - vivid
  - dim
14. **ELUSIVE**
- definite
  - happy
  - mysterious
  - worthwhile
  - remarkable
15. **FRESH**
- used
  - stale
  - tired
  - experienced
  - aged

**Directions (Qs.16 to 23) :** Read the following passage carefully and answer the questions given below it. Certain words have been printed in bold to help you locate them while answering some of the questions.

Thinking of what education might look like in the next decade, one quickly realizes that the trends in technology are leaving a large number of our students behind. Today is an age of exponential change. New and ever-improving technologies are popping up every day and in every corner of society. Educating the best and the brightest in this brave new world will take a new and improved educational **paradigm**. Allowing our educational tools to age in the corner of the classroom will be the mistake that may cost us our future. Throwing away masses of children to **inequitable** access will ensure that we **languish** at the bottom of the global pool of employable workers for decades to come.

Technology will shape in a way we educate students in the next decade. A user is not simply a person who uses. For the student, being a user should involve using the latest technology in a free and **autonomous** manner. This new-found freedom will allow the student to become an active participant in his/her education instead of a passive passenger. In our current technological society, being a user also means being tracked. Tracking a student means having the ability to target education towards weaknesses and strengths. The ability to accurately customize curricula to the individual has been the holy grail of educational philosophy for many years. This golden age of technological development may soon enable this dream to become a reality.

Current educational curricula and individual assessment is **arbitrary** at best. Accurately assessing a student can only be achieved by using modern tracking and database technologies. Imagine a world where every child has a tablet computer with ready access to the internet. Further, imagine that every student

RESPONSE  
GRID

4. (a) (b) (c) (d) (e) 5. (a) (b) (c) (d) (e)  
9. (a) (b) (c) (d) (e) 10. (a) (b) (c) (d) (e)  
14. (a) (b) (c) (d) (e) 15. (a) (b) (c) (d) (e)

6. (a) (b) (c) (d) (e) 7. (a) (b) (c) (d) (e) 8. (a) (b) (c) (d) (e)  
11. (a) (b) (c) (d) (e) 12. (a) (b) (c) (d) (e) 13. (a) (b) (c) (d) (e)

can access all the knowledge of humankind freely at any moment in time. Continue to imagine a world where a misspelled word brings up a spelling challenge application instead of an auto correction. Try to contemplate what it would mean for a teacher to have a database of every misspelled word, every misunderstood concept or every missed, equation for each of their students. Try to envision a teacher with the ability to customize the experience of the individual "user" with minimal effort. Imagine the curriculum being automatically targeted to the user through an intuitive educational platform that knows all strengths and each unique weakness. In the last few hundred years, most individuals would consider an education as something you receive. You often hear the question asked, "Where did you receive your education?" As we proceed through the next decade, education will slowly move away from reception and toward being custom designed for the individual user. New technology will not only allow us to receive an education, but also develop an education. The question we might ask in ten years, "How did you develop your education?" The question of where will still be important, but the how of the matter will be the focus that defines the individual.

To make this a reality we will need a standardized platform from which to develop a student's unique education. This standardized platform will allow us to tailor a custom curriculum that will be matched to talents, interests and life goals. For the educator, a standardized platform will create a way to assist the student in discovering a true purpose in life through a unique educational experience. The basics of reading, writing and arithmetic will not be taught as much as they will be discovered and used. Learning will become a **reciprocal** experience between the teacher, the student and the machine.

Under a standardized platform, each of these three participants will have a role to play. The teacher will be the facilitator, assisting the development of the curriculum and inspiring the direction the student takes. The student will be the user, gathering resources, skills and knowledge in an efficient and measured sequence. The machine will do the work of data gathering and analysis, which will assist the teacher and student in refining the curriculum. This data gathering work of the machine will also free the teacher from the burden of record-keeping and tedious tasks that currently distract from the real job of teaching and learning. Under a standardized system, grade level will be far less important. Achievement and progression will be measured by accomplishment and intelligence as a benchmark for success. The question of failure or success will be irrelevant and replaced with a standard and consistent measurement of potential and overall intelligence. Information will no longer be missed but continually rehearsed and monitored for retention by the machine. Tasks such as data tracking, reporting and record keeping are currently accomplished manually. These tasks could easily be delegated to an intuitive database. Developing a standard to follow would eliminate these tasks and free the teacher to do their main job of teaching students. The next decade may mark the moment in history when all are granted equal access to technology. Access to quality education will only be gained through investment and universal standardization of this technology. If we continue to divert wealth towards fruitless goals and corporate greed, this opportunity will be lost or hopelessly delayed.

16. According to the author, which of the following will be the benefit(s) of introducing a standardized technological platform?

- (A) Potential of a child will take precedence over the grades he/she scores.

- (B) Improving the educational syllabus would become easier.  
 (C) Teachers would be able to devote more time to teaching.  
 (a) Only (C) (b) All (A), (B) and (C)  
 (c) Only (B) and (C) (d) Only (A) and (B)  
 (e) Only (A)

17. Which of the following is/are true in the context of the passage?

- (A) In the presence of technology each student would require constant monitoring by other individuals to maximize learning.  
 (B) Educational philosophy is based on the belief of tailoring educational syllabus to individual student capability.  
 (C) The author visualizes that each student 'will have access to technology in the future.  
 (a) Only (A) and (B) (b) Only (B)  
 (c) Only (C) (d) Only (B) and (C)  
 (e) All (A), (B) and (C)

18. Which of the following is possibly the most appropriate title for the passage?

- (a) Technology - A Welcome Relief to Teachers  
 (b) Revamping the Educational Sector - An Impossible Future  
 (c) Education - Arbitrary But a Reality  
 (d) Technology and the Economy  
 (e) Technology - Reshaping the Future of Education

19. How, according to the author, will the perception towards education change over the next decade?

- (a) Where an individual gets his education will gain increasing importance  
 (b) Education will be viewed as a prerogative of the elite only  
 (c) Creativity in an individual will be regarded as needless  
 (d) The importance of education will decline  
 (e) None of these

20. What does the author mean by the term "tracking a student"?

- (a) Analyzing the strengths and weaknesses of a student and designing an educational syllabus accordingly  
 (b) Assessing whether a student is paying due attention to the existing curriculum offered by an institute of learning  
 (c) Analyzing the positives and negatives of an educational institute and modifying it suitably to cater to industrial requirements  
 (d) Following a student to the educational institute that he visits frequently in order to estimate the time he spends there  
 (e) None of these

21. According to the author, why is the current education provided not satisfactory?

- (a) The teachers providing education are not qualified enough to emphasize on quality  
 (b) Quality of education provided is not uniform across the globe and individual assessment is subjective  
 (c) The educational sector is fraught with corrupt practices and thus does not produce the desired result  
 (d) The education system is not guided by technology and hence the pace of learning is slow  
 (e) There are too many schools in the country which cannot be monitored effectively

RESPONSE  
GRID

16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e)  
 21. (a)(b)(c)(d)(e)

22. What is the author's vision regarding the integration of technology with education?
- (A) A substantial database consisting of each student's learning curve would be readily available.  
 (B) An error would activate a software which would encourage learning rather than auto-correcting.  
 (C) Experimentation in academics would be encouraged.  
 (a) Only (C)                      (b) Only (A) and (B)  
 (c) All (A), (B) and (C) (d) Only (A) and (C)  
 (e) None of these
23. How has the author defined the term 'user' ?
- (a) One who invests in the latest technology even when it is beyond his/her means  
 (b) One who uses available technology to the maximum and for the longest period  
 (c) One who freely and actively participates in acquiring skills and knowledge in a systematic manner  
 (d) Anyone who invests in technology as per his/her requirement and where with all  
 (e) None of these

**Directions (Qs. 24 to 27) :** Read the passage carefully and answer the questions given below it.

Currency devaluation takes place when one country's currency is reduced in value in comparison to other currencies. After currency devaluation, more of the devalued currency is required in order to purchase the same amount of other currencies. A fictional example: If last year, one US Dollar purchased 50 Indian Rupees, and this year, one US Dollar can only purchase 45 Indian Rupees, the US dollar has undergone a currency devaluation.

Currency devaluation can take two forms. It can either be the natural result of market forces, or it can be the result of government intervention. In the first scenario, the global market changes its opinion about the stability, value or future of a currency and decides that it is willing to pay less. In the second scenario, a nation's government fixes the relative price of their currency below its present level and prohibits currency exchange at any other rate.

Currency devaluation can help achieve a more desirable balance of trade. For nations experiencing a trade deficit (when imports exceed exports), a currency devaluation will reduce the price of their products abroad and increase the price of foreign products in domestic markets. Increased demand for products in other countries due to lower prices can also mean more jobs and lower unemployment rates at home.

Since its Independence in 1947, India has faced two major financial crises and two consequent devaluations of the rupee. These crises were in 1966 and 1991 and they had similar causes.

The 1966 devaluation was the result of the first major financial crisis the government faced. Since 1950, India ran continued trade deficits that increased in magnitude in the 1960s. Two additional factors played a role in the 1966 devaluation. The first was India's war with Pakistan in late 1965. The second factor is the drought of 1965/1966. The sharp rise in prices in this period, which led to devaluation, is often blamed on the drought, but in 1964/1965 there was a record harvest and still, prices rose by 10%. The drought was a catalyst for, rather than a direct cause of, devaluation.

Following the 1966 devaluation, the government initially liberalized its trade restrictions by reducing export subsidization and import tariffs. These actions counteracted the devaluation to

some extent but even taking these policies into consideration, there was still a net devaluation. 1991 is often cited as the year of economic reform in India. Surely, the government's economic policies changed drastically in that year, but the 1991 liberalisation was an extension of earlier, albeit slower, reform efforts that had begun in the 1970s when India relaxed restrictions on imported capital goods as part of its industrialization plan.

While the devaluation of 1991 was economically necessary to avert a financial crisis, the radical changes in India's economic policies were, to some extent, undertaken voluntarily by the government of PVNarasimha Rao. In July of 1991 the Indian government devalued the rupee by between 18 and 19 per cent.

24. What is meant by currency devaluation?
- (a) Fall in price level  
 (b) Fall of exports  
 (c) Reduction in the purchasing capacity  
 (d) Negative balance of trade  
 (e) None of these
25. Let us suppose that the price of 1 Dollar as on 31st March 2010 was ₹47 but, as on 18 May 2010, ₹49 was required for the same. What does it mean?
- (a) Devaluation of Dollar  
 (b) Devaluation of Rupee  
 (c) Not concerned with value of currency  
 (d) Devaluation of both the currencies  
 (e) None of these
26. Devaluation of Indian rupee will lead to which of the following?
- (a) It will reduce the price of Indian products abroad.  
 (b) It will reduce the demand of Indian products worldwide.  
 (c) Exporters will incur loss.  
 (d) Importers will be benefited.  
 (e) None of these
27. What are the ways of currency devaluation?
- (a) Mutual agreement between two countries.  
 (b) By market forces and govt control  
 (c) According to the instructions of the World Bank?  
 (d) By growth of exports.  
 (e) None of these

**Directions (Qs. 28 to 30) :** (Mark the statements) true with reference to the passage.

28. I. A govt takes resort to devaluation in the case of an economic crisis,  
 II. Currency devaluation helps exporters positively.
- (a) Only I                      (b) Only II  
 (c) Both I & II              (d) Either I or II  
 (e) None of these
29. I. Currency devaluation may result in more employment opportunities.  
 II. As a result of devaluation the country will have to pay less for the imported goods.
- (a) Only I                      (b) Only II                      (c) Both I & II  
 (d) Either of the two      (e) None of these
30. I. It was 1991 when the process of economic reforms was started in India.  
 II. Devaluation of 1991 was economically necessary to avert the financial crisis.
- (a) Only I                      (b) Only II                      (c) Both I & II  
 (d) Either I or II              (e) None of these

<b>RESPONSE GRID</b>	22. (a)(b)(c)(d)(e)	23. (a)(b)(c)(d)(e)	24. (a)(b)(c)(d)(e)	25. (a)(b)(c)(d)(e)	26. (a)(b)(c)(d)(e)
	27. (a)(b)(c)(d)(e)	28. (a)(b)(c)(d)(e)	29. (a)(b)(c)(d)(e)	30. (a)(b)(c)(d)(e)	





101 SPEED TEST

70

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## READING COMPREHENSION - II

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1-9):** Read the following passage carefully and answer the questions given below it. Certain words/phrases in the passage are printed in bold to help you locate them while answering some of the questions.

In a country where consumers have traditionally had a raw deal, the Consumer Protection Act was one of the most progressive acts of legislation introduced in 1986. Before this, a shop could get away easily with the line “goods once sold will not be taken back or exchanged” or a car parking contractor with “park at your own risk”. It is not that things have changed now but at least a legislation is in place and a forum is available to seek redressal. One of the basic limitations of this act is its mystification and general ignorance. No consumer agency or group has made its provisions general, nor has any redressal commission or **forum**. Restricted as it is by a lack of infrastructure and personnel and great verdicts to encourage consumers. The legislation is comprehensive. It gives consumers the right to redress against defective goods, deficient services and unfair trade practices. Consumer courts must deliver their judgements within 40 days, but rarely is this deadline adhered to. This reviewer had a first-hand experience of the chairman of a consumer court in Delhi who adjourned a case against a foreign airline for two years on the grounds that he did not have staff to type the orders. His replacement found the backlog so shocking that he dismissed several cases without applying his mind, in the process working against the interests of consumers. But what is more important is that the law has it that a consumer can approach court on his own without having to pay legal fees. In practice, this does not happen. The chairperson of the National Commission, who is a sitting judge, is so **attuned** to delivering judgments which can stand scrutiny in a civil court of law that it is insisted upon that a consumer must be represented by a lawyer. If not, cases are **adjourned** with **impunity** and set for another day. Girimaji’s attempt is creditable in that it is the first of its kind and has addressed almost all possible angles. She has discussed **redressals** in complaints about housing, basic telephony, rail transportation, power supply, life insurance and medical negligence. There are even tips on how to file a complaint. But it is **mired** in the case files of the National/ State Commissions of the Consumer Forum. A useful dimension would have been a comparison with the Law of Torts practised abroad. It is necessary here also, especially in an era of economic liberalisation, when the consumer is likely to be swept off his feet by free-market forces.

- Why is the consumer likely to be swept off his feet?
  - He is easily taken in by the deceptive publicity.
  - He is wooed by the charm of foreign brands readily available in the market.
  - He is not aware of the Law of Torts as practised abroad.
  - He is not aware of the benefits of the consumer rights.
  - The Consumer Protection Act has been implemented and he can seek redressal.
- What does ‘lack of... verdicts’ imply?
  - A lack of the basis of the system, trained staff and decisions based on fact
  - A paucity of funds, jury and judgement
  - A lack of resources, employees and final decision based on facts
  - Not having the required manpower, economy and decisive ruling
  - None of these
- Which of the following statements is/are true?
  - Girimaji’s attempt is comprehensive but could have done with an angle or two more.
  - Though the Act allows the consumer to approach the court on his own, yet a lawyer to represent him is insisted upon.
  - Despite the Act, much remains the same.
  - Only A and C
  - Only A and B
  - Only B and C
  - Only B and C
  - None of these
- What does the author mean by ‘mystification of the Act’?
  - The mysterious Act is yet to be resolved.
  - The consumer is wary of the Act.
  - The Act is not easily accessible.
  - The consumer remains unaware of his rights and privileges.
  - The plight of the consumer is yet to end.

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e)

5. Which of the following best describes the judge's replacement?
- He was partial towards the airline as it was a foreign one.
  - He never bothered to safeguard the interests of the reviewer.
  - He dismissed cases without even giving a second thought to what cases came to him.
  - He was apathetic and uninterested about the direction the case might head in.
  - He passed irrelevant verdicts indifferently.
6. What does the Act broadly cover?
- It protects the right to redress.
  - It is a forum that protects the redresser.
  - It shields the consumer from deceptive and unfair trade practices.
  - It enables the plaintiff to fight his case free of cost.
  - None of these
7. Which of the following is a limitation of the Act?
- It does not cover the international law of torts.
  - It is not comprehensive with regard to liberal economy.
  - No forum or commission has come forward to bring it to light.
  - Its red-tapism
  - None of these
8. How has Girimaji's attempt been creditable?
- It has given the Act a new dimension.
  - She has brought all the loopholes in the Act to the consumer's notice.
  - She has looked at the Act in a very disinterested and impersonal manner.
  - She has discussed the law in the most explicit manner.
  - Her implicit dialogue with the consumer has made him aware of his rights.
9. What is the functionary role of the chairman of the National Commission?
- To be the titular head of the commission
  - To be accountable to the public
  - To prevent any dissent arising out of his verdicts and Acts
  - To adjourn the cases with impunity
  - None of these

**Directions (Qs. 10-12):** Choose the word which is most **SIMILAR** in meaning to the word printed in bold as used in the passage.

**10. Forum**

- Dias
- Podium
- Platform
- Stage
- None of these

**11. Attuned**

- Brought into harmony
- Adjusted
- Hazardous
- Out of tune
- Malpractice

**12. Adjourned**

- Stopped
- Postponed
- Decided
- Cleared
- Pended

**Directions (Qs. 13-15):** Select the word which is most **OPPOSITE** in meaning of the word printed in bold as used in the passage.

**13. Impunity**

- Penalised
- Fine
- Sentence
- Freedom from punishment
- None of these

**14. Mired**

- Buried
- Muddy
- Steeped
- Free
- None of these

**15. Redressal**

- Plea
- Justice
- Sue for compensation
- Not to compensate
- Put right

**DIRECTIONS (Qs. 16-23):** Read the following passage carefully and answer the questions given below it. Certain words / phrases have been printed in bold to help you locate them while answering some of the questions.

Amartya Sen wrote about the Indian tradition of skepticism and heterodoxy of opinion that led to high levels of intellectual argument. The power sector in India is a victim of this tradition at its worst. Instead of **forcefully** communicating, supporting and honestly and firmly implementing policies, people just debate them. It is argued that central undertakings produce power at lower tariffs and must therefore build most of the required extra capacities. This is a **delusion**. They no longer have access to low-cost government funds.

Uncertainty about payment remains a reason for the hesitation of private investment. They had to sell only to SEBs (State Electricity Boards). SEB balance sheets are cleaner after the "securitisation" of the Rs 40,000 crore or so owed by SEBs to central government undertakings, now shown as debt instruments. But state governments have not implemented agreed plans to ensure repayment when due. The current annual losses of around Rs 28,000 crore make repayment highly uncertain. The central undertakings that are their main suppliers have payment security because the government will come to their help. Private enterprises do not have such assurance and are concerned about payment security, that must be resolved.

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 5. (a)(b)(c)(d)(e)  | 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  |
| 10. (a)(b)(c)(d)(e) | 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |
| 15. (a)(b)(c)(d)(e) |                     |                     |                     |                     |

By the late 1990s, improving the SEB finances was recognised as fundamental to power reform. **Unbundling** SEBs, working under corporate discipline and even privatisation and not vertically integrated state enterprises, are necessary for efficient and financially viable electricity enterprises. Since government will not **distance** itself from managing them, privatising is an option. The Delhi model has worked. But it receives no public support.

The Electricity Act 2003, the APRDP (Accelerated Power Reform and Development Programme) with its incentives and penalties, and the creation of independent regulatory commissions, were the means to bring about reforms to improve financial **viability** of power sector. Implementation has been half-hearted and results disappointing. The concurrent nature of electricity in the Constitution **impedes** power sector improvement. States are more responsive to populist pressures than the central government, and less inclined to take drastic action against electricity thieves.

Captive power would add significantly to capacity. However, captive generation, three years after the Act enabled it, has added little to capacity because rules for open access were delayed. Redefined captive generation avoids state vetoes on purchase or sale of electricity except to state electricity enterprises. Mandating open access on state-owned wires to power regardless of ownership and customer would encourage electricity trading. The Act recognised electricity trading as a separate activity. A surcharge on transmission charges will pay for cross-subsidies. These were to be eliminated in time. Rules for open access and the quantum of surcharge by each state commission (under broad principles defined by the central commission) have yet to be announced by some. The few who have announced the surcharge have kept it so high that no trading can take place.

16. The author thinks it appropriate to
- discuss any policy in details and make it fool proof instead of implementing it hastily.
  - follow Indian tradition meticulously as skepticism is essential for major decisions.
  - divert our energies from fruitlessly contracting policies to supporting its implementation whole-heartedly.
  - intellectual arguments and conceptualisation of every policy is definitely better than its enforcement.
  - none of these
17. Why are the central undertakings not capable of generating power at low cost?
- Due to paucity of low-cost funds
  - Due to their access to Government funds
  - Due to their delusion about government funds
  - Because of their extra capacities
  - None of these
18. Which of the following is the reason for apathy of private investors in power sector?
- Their hesitation
  - Uncertainty of their survival
  - Cut-throat competition
  - Lack of guarantee of timely returns
  - None of these
19. What was the serious omission on the part of the State Government?
- Agreement for late recovery of dues
  - Reluctance to repay to private investors as per agreed plan
  - Non-implementation of recovery due to unplanned and haphazard policies
  - Lack of assurance from private enterprises
  - None of these
20. Which of the following is/are considered necessary for improving performance of electricity enterprises?
- Corporate work culture
  - Privatisation
  - Properly integrated state enterprises
- All the three
  - (a) and (b) only
  - (a) and (c) only
  - (b) and (c) only
  - None of these
21. The example of "Delhi Model" quoted by the author underlines his feelings of
- happiness about its success.
  - unhappiness for lack of public support
  - disgust towards privatisation.
- (a) and (b) only
  - (b) and (c) only
  - (a) and (c) only
  - All the three
  - None of these
22. Which of the following was/were not considered as the instrument(s) to accomplish financial well-being of power sector?
- The Electricity Act 2003
  - The APRDP with its incentives and penalties
  - Setting up of independent regulatory commissions
  - States vulnerability to populist pressures
  - Taking drastic action against electricity thieves.
23. Why were the results of the power sector reforms NOT as had been anticipated?
- The means to bring about reforms were illconceived.
  - The enforcement of the reform means was inadequate and apathetic.
  - The Act and the reform measures were contradicting with each other.
  - The incentives on the one hand and penalties on the other created dissatisfaction.
  - None of these

**Directions (Qs. 24-30) :** Read the following passage and answer the questions given below it. Certain words/phrases are given in hold to bold you to locate them while answering some of the questions.

We have inherited the tradition of secrecy about the budget from Britain where also the system has been strongly attacked by eminent economists and political scientists including Peter Jay. Sir Richard Clarke, who was the originating genius of nearly every **important** development in the British budgeting techniques during the last two decades, has spoken out about the abuse of budget secrecy: "The problems of long-term tax policy should surely be debated openly with the facts on the table. In my opinion, all governments should have just the same **duty** to publish their expenditure policy. Indeed, this obligation to publish taxation policy is really essential for the control of public expenditure in order to get realistic taxation implications." Realising that democracy **flourishes** best on the principles of open government, more and more democracies are having an open public debate on budget proposals before introducing the appropriate Bill in the legislature. In the United States the budget is conveyed in a message by the President to the Congress, which comes well in advance of the date when the Bill is introduced in the Congress. In Finland the Parliament and the people are already discussing in June the tentative budget proposals which are to be introduced in the Finnish Parliament in September. Every budget contains a cartload of figures in black and white - but the dark figures represent the **myriad** lights and shades of India's life, the contrasting tones of poverty and wealth, and of bread so dear and flesh and blood so cheap, the deep tints of adventure and enterprise and man's ageless struggle for a brighter morning. The Union budget should not be an annual **scourge** but a part of presentation of annual accounts of a partnership between the Government and the people. That partnership would work much better when the nonsensical secrecy is replaced by openness and public consultations, resulting in fair laws and the people's acceptance of their moral duty to pay.

24. How do the British economists and political scientists react to budget secrecy? They are
- in favour of having a mix of secrecy and openness.
  - indifferent to the budgeting techniques and taxation policies.
  - very critical about maintenance of budget secrecy.
  - advocates of not disclosing in advance the budget contents.
  - None of these
25. The author thinks that openness in budget is essential as it leads to
- prevention of tax implications
  - people's reluctance to accept their moral duties

- exaggerated revelation of the strengths and weaknesses of economy
  - making our country on par with Finland
  - None of these
26. The author seems to be in favour of
- maintaining secrecy of budget
  - judicious blend of secrecy and openness
  - transparency in budget proposals
  - replacement of public constitution by secrecy
  - None of these
27. The secrecy of the budget is maintained by all of the following countries **except**
- Finland
  - India
  - United States
- Only A
  - Only B
  - Only C
  - A and C
  - B and C
28. Which of the following statements is definitely TRUE in the context of the passage?
- The British Government has been religiously maintaining budget secrecy.
  - Budget secrecy is likely to lead to corrupt practices.
  - Consulting unjustifiable taxes with public helps make them accept those taxes.
  - There should be no control on public expenditure in democratic condition.
  - None of these
29. Sir Richard Clarke seems to deserve the credit for
- transformation in the British budgetary techniques.
  - maintenance of secrecy of the British budget.
  - detection of abuse of transparency in budget.
  - bringing down the tax load on British people.
  - None of these
30. From the contents of the passage, it can be inferred that the author is
- authoritarian in his approach.
  - a democratic person.
  - unaware of India's recent economic developments.
  - a conservative person.
  - None of these



**PARA JUMBLES**

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1 to 5):** Rearrange the following six sentences (A), (B), (C), (D) and (E) in the proper sequence to form a meaningful paragraph, then answer the questions given below them.

- A. It will take extraordinary political commitment and liberal public funding during the 11th Plan for affordable housing to become a credible goal.
  - B. The National Urban Housing and Habitat Policy of the United Progressive Alliance Government seeks to make access to housing, long acknowledged as a fundamental right, a reality for all.
  - C. The task is staggering even if we go by conservative estimates.
  - D. The housing shortage to be met during the Plan is 26.53 million units, which include the backlog from the 10th Plan.
  - E. If the existing stock of poor quality dwellings and the growing urbanization-driven demand are taken into account, the real deficit will be even higher.
1. Which of the following should be the **FIRST** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  2. Which of the following should be the **SECOND** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  3. Which of the following should be the **THIRD** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  4. Which of the following should be the **FOURTH** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  5. Which of the following should be the **FIFTH (LAST)** sentence?  
(a) A (b) B (c) C  
(d) D (e) E

**Directions (Qs. 6 to 10):** Rearrange the following six sentences (A), (B), (C), (D) and (E) and in the proper sequence to form a meaningful paragraph, then answer the questions given below them.

- A. The upsurge of public activism against the setting up of Special Economic Zones, which eventually forced the State Government to announce the scrapping of all 15 such projects, is an impressive case in point.
- B. Early last year, a similar agitation coerced the government into calling for a revision of the Goa Regional Plan 2011, a controversial document that opened up large swathes of land, including green belts and coastal stretches, for construction.

- C. The broad-based agitation against SEZs has demonstrated the power of popular protest in the State.
  - D. Those opposed to the projects had questioned the propriety of the government acquiring large tracts of land and then selling them to promoters at low prices.
  - E. A coastal State with an area of 3,700 square kilometers and a population of about 1.4 million, Goa has always been extremely sensitive to the impact of unrestrained economic development.
6. Which of the following should be the **FIRST** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  7. Which of the following should be the **SECOND** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  8. Which of the following should be the **THIRD** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  9. Which of the following should be the **FOURTH** sentence?  
(a) A (b) B (c) C  
(d) D (e) E
  10. Which of the following should be the **FIFTH (LAST)** sentence?  
(a) A (b) B (c) C  
(d) D (e) E

**Directions (Qs. 11 to 15):** Rearrange the following six sentences (A), (B), (C), (D) and (E) in the proper sequence to form a meaningful paragraph, then answer the questions given below them.

- A. The British government plans to insist that spouses should have to learn English before they are allowed into Britain to join their husbands or wives have run into a barrage of opposition and warnings that the idea could breach human rights laws.
- B. The responses to an official consultation on the proposal published on Thursday was more than two to one against the proposal, with many warning it could break up marriages because many cannot afford or access English lessons.
- C. Immigration lawyers have told ministers that spouses and fiances should not be barred from joining a partner in the U.K. for language reasons and that the plan could breach the human rights convention's guarantees to the right to marry and have a family life.
- D. The anonymised responses were 68 to 31 against the pre-entry english test for spouses.
- E. Other immigration organizations said the measure would discriminate against those from rural areas in South Asia, where the opportunities to learn English are limited.

**RESPONSE GRID**

- |                        |                        |                        |                        |                         |
|------------------------|------------------------|------------------------|------------------------|-------------------------|
| 1. (a) (b) (c) (d) (e) | 2. (a) (b) (c) (d) (e) | 3. (a) (b) (c) (d) (e) | 4. (a) (b) (c) (d) (e) | 5. (a) (b) (c) (d) (e)  |
| 6. (a) (b) (c) (d) (e) | 7. (a) (b) (c) (d) (e) | 8. (a) (b) (c) (d) (e) | 9. (a) (b) (c) (d) (e) | 10. (a) (b) (c) (d) (e) |

11. Which of the following should be the **FIRST** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
12. Which of the following should be the **SECOND** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
13. Which of the following should be the **THIRD** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
14. Which of the following should be the **FOURTH** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
15. Which of the following should be the **FIFTH (LAST)** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
- (D) Vishnu Raman was a poor Brahmin and a farmer by profession.  
 (E) The next day when he returned, he was rewarded with a gold coin in the bowl he left behind.  
 (F) Just as he was preparing to lie down he saw a huge cobra swaying with his hood open.
21. Which of the following should be the **SECOND** sentence after rearrangement?  
 (a) B (b) C (c) E  
 (d) D (e) F
22. Which of the following should be the **FIRST** sentence after rearrangement?  
 (a) A (b) D (c) F  
 (d) C (e) E
23. Which of the following should be the **FIFTH** sentence after rearrangement?  
 (a) F (b) D (c) C  
 (d) B (e) E
24. Which of the following should be the **SIXTH (LAST)** sentence after rearrangement?  
 (a) D (b) B (c) C  
 (d) E (e) F
25. Which of the following should be the **FOURTH** sentence after rearrangement?  
 (a) E (b) F (c) B  
 (d) A (e) D

**Directions (Qs. 16 to 20) :** Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

- (A) He immediately acknowledged Mohan's good work and invited him to his home for dinner.  
 (B) One day a wealthy merchant sent his son's bicycle to the shop for repair.  
 (C) The next day the merchant came to claim the bicycle and noticed that it was shiny.  
 (D) After repairing the bicycle, Mohan cleaned it up and made it look new.  
 (E) Once upon a time, there was a boy named Mohan who worked as an apprentice in a bicycle shop.  
 (F) Other apprentices in the shop laughed at Mohan for doing unnecessary work.
16. Which of the following should be the **SECOND** sentence after rearrangement?  
 (a) A (b) B (c) C  
 (d) D (e) F
17. Which of the following should be the **THIRD** sentence after rearrangement?  
 (a) A (b) B (c) C  
 (d) D (e) E
18. Which of the following should be the **FIRST** sentence after rearrangement?  
 (a) A (b) B (c) C  
 (d) D (e) E
19. Which of the following should be the **LAST (SIXTH)** sentence after rearrangement?  
 (a) A (b) B (c) D  
 (d) E (e) F
20. Which of the following should be the **FOURTH** sentence after rearrangement?  
 (a) B (b) C (c) D  
 (d) E (e) F

**Directions (Qs. 21 to 25) :** Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

- (A) At first he got scared, but then he thought, "I have never worshipped her; that is why I am not able to get anything from my land."  
 (B) One day unable to tolerate the summer heat, he went to rest under a big banyan tree.  
 (C) He rushed to his village and placed his humble offering of milk in a bowl before the snake.

**Directions (Qs. 26 to 30) :** In each of the following items some parts have been jumbled up. You are required to rearrange these parts which are labelled P, Q, R, S to produce the correct sentence. Choose the proper sequence and mark in your Answer Sheet accordingly.

26. Feeling flattered by praise of the fox to the piece of cheese (P) / the crow began to crow (Q) / it held on its beak (R) / unmindful of what will / happen (S).  
 The proper sequence should be  
 (a) SPRQ (b) QSRP (c) RSPQ  
 (d) QSPR (e) PQSR
27. There is that the woman is a kitchen-maid and (P) / the traditional belief (Q) / an instrument of man's pleasure (R) / and a child-bearing machine (S).  
 The proper sequence should be  
 (a) QPSR (b) RQPS (c) QSPR  
 (d) RSPQ (e) PSRQ
28. The rapid endangerment and death of many minority languages not only among linguistics and anthropologists (P) / with issues of cultural identity (Q) / is a matter of widespread concern (R) / but among all concerned (S).  
 The proper sequence should be  
 (a) PSRQ (b) RQPS (c) RPSQ  
 (d) QRPS (e) SPQR
29. Violence even before she is born (P) / and can happen throughout a woman's life (Q) / against women (R) / takes many forms (S).  
 The proper sequence should be  
 (a) RPSQ (b) PQSR (c) RSQP  
 (d) SQRP (e) QPRS
30. I saw two roads covered with the yellow (P) / directions in a forest (Q) / branching in two different (R) leaves of autumn (S).  
 The proper sequence should be  
 (a) PQRS (b) PQSR (c) PRSQ  
 (d) PSRQ (e) QSRP

**RESPONSE  
GRID**

11. a b c d e 12. a b c d e 13. a b c d e 14. a b c d e 15. a b c d e  
 16. a b c d e 17. a b c d e 18. a b c d e 19. a b c d e 20. a b c d e  
 21. a b c d e 22. a b c d e 23. a b c d e 24. a b c d e 25. a b c d e  
 26. a b c d e 27. a b c d e 28. a b c d e 29. a b c d e 30. a b c d e



101 SPEED TEST

72

CLOZE TEST- I

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1-30) :** In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

PASSAGE -1

'Quit India' came not from the lips but the aching heart of millions. In this open rebellion, the Indian (1) reached its climax. The British were not only (2) by it, but also were obliged to quit unilaterally. The importance of Quit India can be (3) from Lord Linlithgow's statement, "I am engaged here, in meeting by far the most (4) rebellion since that of 1857, the gravity and extent of which we have so far (5) from the world for reasons of military security". Still more significant was Churchill's gloomy disclosure to the King Emperor that, "the idea of (6) of power had become an admitted (7) in the minds of British party leaders", although his public statements were diametrically opposite. The (8) created by Quit India made the British (9) that they could no longer keep India in (10)

1. (a) patriotism (b) freedom (c) liberation  
(d) revolution (e) leadership
2. (a) attacked (b) inspired (c) enfeebled  
(d) threatened (e) impressed
3. (a) established (b) diffused (c) gauged  
(d) determined (e) invigorated
4. (a) trivial (b) serious (c) auspicious  
(d) praiseworthy (e) magnificent
5. (a) elicited (b) excluded (c) abstained  
(d) concealed (e) prevented
6. (a) transfer (b) seizure (c) grabbing  
(d) retainment (e) enhancement
7. (a) fantasy (b) tactics (c) occurrence  
(d) inevitability (e) disillusionment
8. (a) anarchy (b) violence (c) taboos  
(d) exigencies (e) vengeance

9. (a) anxious (b) realise (c) imagine  
(d) pretend (e) apprehend
10. (a) exile (b) power (c) bondage  
(d) suspense (e) abeyance

PASSAGE -2

Now-a-days, under the (1) system of education, however good it may be, when a young man comes out of the university, there seems to be this (2) in him that the higher the standard of living rises, the less should a man work. Thus, mathematically, higher the standard of living, according to this misconceived notion, the less the (3) ultimately, what? should be the highest standard of living then? (4) work ! This leads to an unhealthy (5) among the workers . A typist who types over twenty letters a day asks his (6) how many letters he had typed that day. The latter (7) " fifteen". The former thinks , " Tomorrow I should type only fifteen or even (8). This tendency is quite (9) and may ultimately lead to (10) even one's family life may be affected adversely due to such tendency.

11. (a) extinct (b) proposed (c) developed  
(d) modern (e) outdated
12. (a) apprehension (b) realisation (c) anxiety  
(d) worry (e) misconception
13. (a) work (b) time (c) salary  
(d) energy (e) comfort
14. (a) Ample (b) No (c) Minimum  
(d) Less (e) Maximum
15. (a) ambition (b) jealousy (c) delay  
(d) dispute (e) competition
16. (a) colleague (b) client (c) boss  
(d) subordinate (e) employee
17. (a) remembers (b) types (c) suggests  
(d) replies (e) does
18. (a) more (b) all (c) less  
(d) some (e) few
19. (a) unnatural (b) unfortunates (c) healthy  
(d) heartening (e) discouraging
20. (a) retardation (b) denial (c) evil  
(d) complexity (e) progress

RESPONSE  
GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |
| 16. (a)(b)(c)(d)(e) | 17. (a)(b)(c)(d)(e) | 18. (a)(b)(c)(d)(e) | 19. (a)(b)(c)(d)(e) | 20. (a)(b)(c)(d)(e) |

## PASSAGE -3

Hundreds of plants and animals are (21) every day due to deforestation and urbanization what might happen if this continues in the future? The last mass extinction of plant and animal species occurred 65 million years ago with the Dinosaurs. In all, five mass extinctions have occurred and scientists (22) earth is in sixth mass extinction. The world as it is now is threatened, including people, who are responsible for earth's (23). Pesticides contaminating water; over harvesting of animals and plants; air pollution; illegal fishing and the Clearing of land are direct results of urbanization and deforestation. People have (24) and damaged almost half a earth's land, at a very unsustainable rate.

Global warming is having a serious impact as well. A six-degree Celsius increase in global temperature killed 95% of All species on Earth 251 million years ago. An increase of six-degree Celsius is forecast this Century if a change is not made to (25) the damage done to earth. Humans will be one of the 95% of species lost. Noticeable, changes of global warming include migration (26) and the change in season Urnings. Migrating birds are migrating earlier, which in turn is causing them to hatch eggs and (27) young earlier than they did at the beginning of this Century. While this is just the tip of the iceberg many other (28) regarding the extinction of plant and animal species need addressing. It is more important now than ever before to pull our heads out of the sand arid make changes for the (29) of the earth. Future generations are (30), as they are a species as well.

21. (a) killing (b) alive (c) born  
(d) left (e) lost
22. (a) speak (b) told (c) estimation  
(d) believe (e) consider
23. (a) shape (b) development  
(c) deterioration (d) warmth  
(e) expansion
24. (a) altered (b) created (c) produced  
(d) made (e) brought
25. (a) void (b) dissipate (c) argument  
(d) reverse (e) increase
26. (a) delay (b) birds (c) slowdown  
(d) hasten (e) acceleration
27. (a) spare (b) bear (c) destroy  
(d) amend (e) generation
28. (a) animals (b) difficulty (c) issues  
(d) humans (e) problem
29. (a) extinction (b) better (c) wealth  
(d) sugma (e) demand
30. (a) endangered (b) threaten (c) evaluated  
(d) living (e) compared

RESPONSE  
GRID

21. (a) (b) (c) (d) (e) 22. (a) (b) (c) (d) (e) 23. (a) (b) (c) (d) (e) 24. (a) (b) (c) (d) (e) 25. (a) (b) (c) (d) (e)  
26. (a) (b) (c) (d) (e) 27. (a) (b) (c) (d) (e) 28. (a) (b) (c) (d) (e) 29. (a) (b) (c) (d) (e) 30. (a) (b) (c) (d) (e)





CLOZE TEST- II

Max. Marks : 28

No. of Qs. 28

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1 to 28) :** In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blanks appropriately. Find out the appropriate word in each case.

PASSAGE-1

Prior to independence the healthcare sector in India was in a (1) with a large number of deaths and rampant spread of infectious diseases. After independence the Government of India laid (2) on primary healthcare and India has put in sustained efforts to better the healthcare system (3) the country, The government initiative was not enough to meet the demands of a growing population be it in primary, secondary or tertiary healthcare. Alternate sources of finance were critical for the sustainability of the health sector. Till about 20 years ago, private sector ventures in the healthcare sector (4) of only solo practitioners, small hospitals and nursing homes. The quality of service provided was excellent especially in the hospitals run by charitable trusts and religious foundations. In 1980's realizing that the government on its own would not be able to (5) for healthcare, the government allowed the entry of private sector to reduce the (6) between supply and demand for healthcare. The establishment of the private sector has resulted in the (7) of opportunities in terms of medical equipment, information technology in health services. BPO, telemedicine and medical tourism.

Large companies and (8) individuals have now started five star hospitals which dominate the space for the high end market. The private sector has made (9) progress, but on the flip side it is also responsible for increasing (10) in the healthcare sector. The private sector should be more socially relevant and effort must be made to make private sector accessible to the weaker sections of society.

1. (a) shambles (b) failure (c) demand  
(d) prosperity (e) ruined
2. (a) bricks (b) emphasize (c) request  
(d) stress (e) important
3. (a) through (b) across (c) sharing  
(d) with (e) on

4. (a) made (b) comprise (c) consisted  
(d) is (e) contained
5. (a) cater (b) provide (c) manage  
(d) survive (e) give
6. (a) gap (b) position (c) distance  
(d) length (e) thought
7. (a) reduction (b) sea (c) cropping  
(d) disabling (e) emergence
8. (a) needy (b) destitute (c) bigger  
(d) affluent (e) much
9. (a) slowly (b) improve (c) many  
(d) improvised (e) tremendous
10. (a) speed (b) pace (c) inequality  
(d) uniformity (e) seriousness

PASSAGE-2

The Right of Children to Free and Compulsory Education (RTE) Act, 2009, which came (11) effect in April this year, is meant to transform the education sector and take India closer to the goal of universal schooling. But with admissions to the new academic session just (12) the corner, it is fast becoming clear that (13) well intentioned ideas into (14) will take some doing. For a start, the guidelines for admissions under the RTE prohibit schools from conducting any sort of student profiling. The stress on a random yet justifiable admission process means that schools will have to resort to something as quirky as a lottery system. However, leaving admission to a good school to pure (15) will only incentivise manipulations, defeating the very essence of RTE.

The main problem facing the education sector is that of a resource crunch. The provisions for ensuring universal access to education are all very well, (16) we have the infrastructure in place first. Brick and mortar schools need to precede open admission and not the (17) way around. In that sense, legislators' assessment of ground realities is (18) target when they endorse the closure of tens of thousands of low-cost private schools for not meeting the minimum standards of land plot, building specifications and playground area as laid out in the RTE Act. Instead of bearing down (19) on private schools for failing to conform to abstract bureaucratic criteria, efforts to bring about universal education

RESPONSE  
GRID

- |                    |                    |                    |                    |                     |
|--------------------|--------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e) | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e) | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |

should focus on upgrading and expanding the existing government school infrastructure to accommodate all. Only then can we ensure the much needed supply-demand **(20)** in the education sector.

11. (a) with (b) for (c) on  
(d) into (e) in
12. (a) around (b) near (c) into  
(d) about (e) reaching
13. (a) forming (b) translating (c) having  
(d) taking (e) framing
14. (a) affect (b) ideas (c) practice  
(d) concept (e) procedure
15. (a) benefit (b) merit (c) chance  
(d) basis (e) method
16. (a) unless (b) until (c) executed  
(d) provided (e) exercised
17. (a) other (b) any (c) two  
(d) differ (e) after
18. (a) on (b) of (c) often  
(d) taken (e) off
19. (a) soft (b) more (c) less  
(d) only (e) hard
20. (a) need (b) equilibrium  
(c) expectation (d) attempt  
(e) aspects

**PASSAGE-3**

The Government seems to be in right earnest to ensure more ...(21)... in governance. The Prime Minister's announcement that his Government is ...(22)... drafting legislation to establish the citizen's right to information is indeed welcome. Though the talk

on the right to information is not new, we may ...(23)... the bill to be brought early this time. The previous Government had set up a high-level committee to prepare a draft bill. But nothing has been heard about the matter since, ...(24)... the committee did quite some work. The issue, however, has come to such a pass that a solution cannot be ...(25)... further. Sunlight is the best disinfectant, a foreign judge once said, while ...(26)... the unwarranted secrecy in an administrative system. When those in authority know that people have the right to ask questions and the government is under the ...(27)... to provide them with answers, ...(28)... of authority, or of public finances, for personal or party ends is less likely to happen.

21. (a) strictness (b) rudeness (c) leniency  
(d) economy (e) transparency
22. (a) personally (b) busy (c) not  
(d) reluctantly (e) absolutely
23. (a) expect (b) wait (c) try  
(d) frustrate (e) appeal
24. (a) even (b) as (c) because  
(d) until (e) though
25. (a) found (b) expected (c) delayed  
(d) looked (e) longed
26. (a) nurturing (b) criticising (c) demanding  
(d) appreciating (e) upholding
27. (a) pretention (b) affect (c) substance  
(d) obligation (e) property
28. (a) misuse (b) governance (c) dishonour  
(d) curbing (e) breach

<b>RESPONSE GRID</b>	<b>11.</b> (a) (b) (c) (d) (e) <b>12.</b> (a) (b) (c) (d) (e) <b>13.</b> (a) (b) (c) (d) (e) <b>14.</b> (a) (b) (c) (d) (e) <b>15.</b> (a) (b) (c) (d) (e)
	<b>16.</b> (a) (b) (c) (d) (e) <b>17.</b> (a) (b) (c) (d) (e) <b>18.</b> (a) (b) (c) (d) (e) <b>19.</b> (a) (b) (c) (d) (e) <b>20.</b> (a) (b) (c) (d) (e)
	<b>21.</b> (a) (b) (c) (d) (e) <b>22.</b> (a) (b) (c) (d) (e) <b>23.</b> (a) (b) (c) (d) (e) <b>24.</b> (a) (b) (c) (d) (e) <b>25.</b> (a) (b) (c) (d) (e)
	<b>26.</b> (a) (b) (c) (d) (e) <b>27.</b> (a) (b) (c) (d) (e) <b>28.</b> (a) (b) (c) (d) (e)



## ONE WORD WITH DIFFERENT MEANINGS

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Directions (1-10):** In each question below are given two sentences numbered I and II. In these sentences, two homonyms are given in italics type, which may be either mis-spelt or inappropriate in the context of the sentences. Read both the sentences carefully and decide on their correctness on the basis of the italicised words.

Give answer.

- (a), if only sentence I is correct;  
 (b), if only sentence II is correct;  
 (c), if both the sentences I and II are correct;  
 (d), if I as well as II are incorrect, but both could be made correct by interchanging the italicised words;  
 (e), if neither I nor II is correct and the sentence could not be made correct by interchanging the italicised words.
- I. An *ordnance* declaring President's rule in the state has been issued today.  
 II. The *ordinance* depot is situated far away from this city.
  - I. You should talk to your boss in a reverent manner.  
 II. Our *reverend* Principal is coming.
  - I. He was being laughed at for his antic gesture.  
 II. Antique articles are priced much these days.
  - I. The tragic tale narrated by the old man *efected* all the children.  
 II. The humane attitude of the new manager *affected* a profound change in labour relations.
  - I. He is *wrapt* up in pleasurable contemplation.  
 II. I listened to her song with *rapt* attention.
  - I. I think this electric *metre* is faulty.  
 II. I require two meters of cloth for this purpose.
  - I. His manners are *urban*.  
 II. People of urbane area are civil in manners.
  - I. He won the election only because of the support he got from his *zealous* party workers.  
 II. Savita's friends were *jealous* of her success in the prestigious competition.

- I. Some of the African *immigrants* indulge in smuggling in our country.  
 II. Many *emmigrants* from India have settled in America.
- I. He did not *accede* to my request.  
 II. Don't *exceed* the limits.

**Directions (Qs. 11-30):** Below is given a single word with options to its meaning in different contexts. You have to select all those options which are synonyms of the word when the context is changed. Select the correct alternative from (a), (b), (c), (d) and (e) which represents all those synonyms.

- ALTER  
 (1) Fix (2) Change  
 (3) Gender (4) Modify  
 (a) Only (1) (b) Both (2) and (4)  
 (c) Only (2), (3) and (4) (d) Only (1), (2) and (3)  
 (e) All (1), (2), (3) and (4)
- MYSTERIOUS  
 (1) Cryptic (2) peculiar  
 (3) Queer (4) Secret  
 (a) Only (4) (b) Both (2) and (4)  
 (c) Both (1) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
- NAIVE  
 (1) Sophisticated (2) primitive  
 (3) Uninitiated (4) uninstructed  
 (a) Only (4) (b) Both (1) and (3)  
 (c) All (2), (3) and (4) (d) Only (1), (3) and (4)  
 (e) All (1), (2), (3) and (4)
- EXAGGERATE  
 (1) Boast (2) Brag  
 (3) Overdo (4) Overstate  
 (a) Only (3) (b) Both (1) and (4)  
 (c) Only (1), (3) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
 6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)  
 11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e)

15. TENDENCY  
 (1) Disposition (2) inclination  
 (3) Trend (4) leaning  
 (a) Only (1) (b) Both (1) and (3)  
 (c) Both (2) and (3) (d) Only (1), (3) and (4)  
 (e) All (1), (2), (3) and (4)
16. PROSPECTIVE  
 (1) Future (2) likely  
 (3) Retrospective (4) potential  
 (a) Only (1) (b) Both (2) and (4)  
 (c) Only (1), (2) and (4) (d) Only (1), (2) and (3)  
 (e) All (1), (2), (3) and (4)
17. DEFICIENCY  
 (1) Insufficiency (2) totally  
 (3) Wholly (4) entirely  
 (a) Only (1) (b) Both (2) and (4)  
 (c) Both (1) and (3) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
18. DIGNITY  
 (1) Humility (2) Self-respect  
 (3) Humbleness (4) Self-regard  
 (a) Only (1) (b) Both (2) and (4)  
 (c) Only (1), (3) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
19. OBSOLETE  
 (1) Disused (2) redundant  
 (3) Superfluous (4) surplus  
 (a) Only (1) (b) Both (1) and (4)  
 (c) Only (1), (3) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
20. REFLECTION  
 (1) Observation (2) suspension  
 (3) Outburst (4) Expression  
 (a) Only (1) (b) Both (1) and (4)  
 (c) Both (2) and (3) (d) Only (1), (3) and (4)  
 (e) All (1), (2), (3) and (4)
21. INTEGRATION  
 (1) Intensifying (2) combination  
 (3) Heightening (4) consolidation  
 (a) Only (4) (b) Both (2) and (4)  
 (c) Both (1) and (2) (d) Only (1), (2) and (3)  
 (e) All (1), (2), (3) and (4)
22. NOURISHING  
 (1) Tiring (2) toiling  
 (3) Tasty (4) nutritious  
 (a) Only (4) (b) Both (2) and (4)  
 (c) Both (1) and (3) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
23. OBEDIENCE  
 (1) Accomplishment (2) Flexibility  
 (3) Obeisance (4) Respect  
 (a) Only (4) (b) Both (1) and (3)  
 (c) Both (3) and (4) (d) Only (1), (3) and (4)  
 (e) All (1), (2), (3) and (4)
24. OBLIGATION  
 (1) Indebtedness (2) Demand  
 (3) Responsibility (4) Duty  
 (a) Only (3) (b) Both (1) and (4)  
 (c) Only (1), (3) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
25. RESPITE  
 (1) Reprieve (2) Relief  
 (3) Suspension (4) Recess  
 (a) Only (1) (b) Both (1) and (3)  
 (c) Both (2) and (3) (d) Only (1), (3) and (4)  
 (e) All (1), (2), (3) and (4)
26. COMPATIBLE  
 (1) Similar (2) standardised  
 (3) Simpatico (4) interchangeable  
 (a) Only (3) (b) Both (1) and (2)  
 (c) Only (1), (2) and (4) (d) Only (1), (2) and (3)  
 (e) All (1), (2), (3) and (4)
27. INTERRUPT  
 (1) Disrupt (2) Break up  
 (3) Examination (4) Progress  
 (a) Only (4) (b) Both (2) and (4)  
 (c) Both (1) and (2) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
28. TANTALISE  
 (1) Taunt (2) Spoof  
 (3) Charade (4) Tease  
 (a) Only (1) (b) Both (1) and (4)  
 (c) Only (1), (3) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
29. STALEMATE  
 (1) Deadlock (2) Impasse  
 (3) Standstill (4) Dead-end  
 (a) Only (1) (b) Both (1) and (4)  
 (c) Only (1), (3) and (4) (d) Only (1), (2) and (4)  
 (e) All (1), (2), (3) and (4)
30. RITUAL  
 (1) Rite (2) pattern  
 (3) Use (4) habit  
 (a) Only (1) (b) Both (1) and (4)  
 (c) Both (2) and (3) (d) Only (1), (3) and (4)  
 (e) All (1), (2), (3) and (4)

**RESPONSE  
GRID**

15. (a) (b) (c) (d) (e) 16. (a) (b) (c) (d) (e) 17. (a) (b) (c) (d) (e) 18. (a) (b) (c) (d) (e) 19. (a) (b) (c) (d) (e)  
 20. (a) (b) (c) (d) (e) 21. (a) (b) (c) (d) (e) 22. (a) (b) (c) (d) (e) 23. (a) (b) (c) (d) (e) 24. (a) (b) (c) (d) (e)  
 25. (a) (b) (c) (d) (e) 26. (a) (b) (c) (d) (e) 27. (a) (b) (c) (d) (e) 28. (a) (b) (c) (d) (e) 29. (a) (b) (c) (d) (e)  
 30. (a) (b) (c) (d) (e)



101 SPEED TEST

75

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## SENTENCE COMPLETION

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

**Direction (Qs. 1 to 5) :** In each of these questions, a sentence has one or two blanks, each blank indicating the something has been omitted. Beneath the sentence are given four words or a set of word. Choose the word or the set of words for each blank that best fits the meaning of the sentence as a whole.

- The \_\_\_\_\_ successfully repelled every \_\_\_\_\_ on the city.
  - defenders-comment
  - citizens-onslaught
  - thieves-robbery
  - judge-criticism
  - None of these
- He was \_\_\_\_\_ very clever, but he \_\_\_\_\_ performed excellently.
  - certainly-obviously
  - never-also
  - not-always
  - rarely-seldom
  - None of these
- A \_\_\_\_\_ analysis of these substances will show that they differ \_\_\_\_\_.
  - random-minutely
  - detailed-essentially
  - careful-completely
  - final-Structurally
  - None of these
- When the \_\_\_\_\_ polished the stones, they gleamed with a breath-taking brilliance.
  - graphologist (b) cosmetologist
  - lapidary (d) beagle
  - None of these
- As \_\_\_\_\_ head of the organisation, he attended social functions and civil meetings, but had no \_\_\_\_\_ in the formulation of company policy.
  - hypothetical-vote
  - titular-voice
  - nominal-competition
  - former-pride
  - None of these

**Direction (Qs. 6 to 10) :** In each of these questions, a sentence has one or two blanks, each blank indicating the something has been omitted. Beneath the sentence are given four words or a set of word. Choose the word or the set of words for each blank that best fits the meaning of the sentence as a whole.

- The perpetual spinning of particles is much like that of a top, with one significant difference, unlike the top, the particles have no need to be wound up, for ..... is one of their ..... properties.
  - revolution-radical
  - rotation-intrinsic
  - motion-intangible
  - acceleration- hypothetical
  - None of these
- The ..... terrorist was finally ..... by the police.
  - famous-apprehended
  - notorious-nabbed
  - crafty-admonished
  - renowned, caught
  - None of these
- It is foolish to vent your spleen on a/an ..... object. Still, you make ..... enemies that way.
  - immobile-bitter (b) interesting-curious
  - humane-more (d) inanimate-fewer
  - None of these
- Compromise is ..... to passionate natures because it seems to surrender, and to intellectual natures it seems a .....
  - unsuited-submission
  - odious-confusion
  - intimidations-dichotomy
  - inherent-fabrication
  - None of these
- The village headman was unlettered, but he was no fool, he could see through the ..... of the businessman's proposition and promptly ..... him down.
  - deception -forced (b) naivete-turned
  - potential-forced (d) sophistry-turned
  - None of these

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e) 5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e) 7. (a)(b)(c)(d)(e) 8. (a)(b)(c)(d)(e) 9. (a)(b)(c)(d)(e) 10. (a)(b)(c)(d)(e)

**Directions (Qs. 11-15) :** Pick out the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.

11. He has a \_\_\_\_\_ knowledge about ancient Indian scriptures.  
(a) delectable (b) profound (c) enriching  
(d) vociferous (e) lamentable
12. Your allegation should be based on facts and not on \_\_\_\_\_.  
(a) surmise (b) proofs  
(c) projections (d) antipathy  
(e) records
13. He spent whole of his life in \_\_\_\_\_ the miseries of the downtrodden people.  
(a) destroying (b) absorbing  
(c) advocating (d) avoiding  
(e) mitigating
14. The \_\_\_\_\_ climate of our town will help to recover his health.  
(a) enchanting (b) prestigious  
(c) salubrious (d) enriching  
(e) proverbial
15. He has the \_\_\_\_\_ distinction of losing the election for the sixth consecutive term.  
(a) reliable (b) manifest  
(c) lamentable (d) dubious  
(e) refreshing

**Directions (Q. 16-30) :** Each question below has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fits the meaning of the sentence as a whole

16. Many teachers ..... the lack of professional freedom as the ..... for leaving the job.  
(a) cited, reason  
(b) explained, force  
(c) claimed, understanding  
(d) argued, culprit  
(e) believe, ground
17. Skeptics would not ..... that the earth actually moves, let alone that it ..... around the sun.  
(a) permit, orbits (b) accept, revolves  
(c) experience, circles (d) assume, went  
(e) challenge, spins
18. Unpredictable ..... of the child could not lead the consultants to any .....  
(a) performance, setting  
(b) belief, judgement  
(c) operation, purpose  
(d) behaviour, conclusion  
(e) react, decision
19. A public servant who is guilty will not ..... punishment and no ..... person will be punished.  
(a) be, sincere (b) flee, guilty  
(c) defend, common (d) avoid, uniformed  
(e) escape, innocent
20. Few professions can ..... the sheer variety and constant ..... of being a doctor.  
(a) like, struggle (b) share, enthusiast  
(c) match, challenge (d) draw, work-load  
(e) justify, exception
21. Prabha's ..... in athletics yielded her ..... as she got a scholarship.  
(a) performance, money  
(b) defeat, results  
(c) behaviour, appreciation  
(d) excellence, dividends  
(e) failure, disappointment
22. The police ..... any attempt of arson by ..... at the trouble spot quite in time.  
(a) squashed, surrounding  
(b) made, encircling  
(c) predisposed, visiting  
(d) thwarted, presenting  
(e) pre-empted, arriving
23. The ..... imposed for non-payment was too ..... for it to bring in improvement in collection.  
(a) fine, severe (b) toll, simple  
(c) penalty, low (d) damage, cruel  
(e) punishment, harsh
24. Somesh ..... me coming to his table, he smiled and ..... me a chair.  
(a) found, signalled (b) met, sat  
(c) looked, gave (d) saw, offered  
(e) welcomed, took
25. The leaders were ..... needed by those to ..... they addressed.  
(a) angrily, who (b) readily, which  
(c) scarcely, whom (d) rarely, where  
(e) joyfully, when
26. I am not ..... to sell you my house unless you offer a more ..... price.  
(a) agree, better (b) prepared, realistic  
(c) ready, correct (d) having, actual
27. Due to ..... rainfall this year, there will be ..... cut in water supply.  
(a) scanty, substantial (b) meagre, least  
(c) insufficient, no (d) surplus, abundant  
(e) abundant, considerable
28. In a changing and ..... unstructured business environment, creativity and innovation are being ..... demanded of executives.  
(a) excessively, rapidly  
(b) highly, extremely  
(c) increasingly, moderately  
(d) progressively, increasingly  
(e) highly, speedily
29. We are ..... to have him ..... here to make this function a great success.  
(a) happy, have (b) unhappy, arrive  
(c) sure, come (d) pleased, over  
(e) wonderful, again
30. Efforts to ..... the issue will not be successful ..... both sides continue to blame each other.  
(a) resolve, if (b) discuss, unless  
(c) address, whether (d) settled, because  
(e) close, although

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 11. (a) (b) (c) (d) (e) | 12. (a) (b) (c) (d) (e) | 13. (a) (b) (c) (d) (e) | 14. (a) (b) (c) (d) (e) | 15. (a) (b) (c) (d) (e) |
| 16. (a) (b) (c) (d) (e) | 17. (a) (b) (c) (d) (e) | 18. (a) (b) (c) (d) (e) | 19. (a) (b) (c) (d) (e) | 20. (a) (b) (c) (d) (e) |
| 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) | 23. (a) (b) (c) (d) (e) | 24. (a) (b) (c) (d) (e) | 25. (a) (b) (c) (d) (e) |
| 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) | 28. (a) (b) (c) (d) (e) | 29. (a) (b) (c) (d) (e) | 30. (a) (b) (c) (d) (e) |



101 SPEED TEST

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## PASSAGE COMPLETION

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

**Directions (Qs. 1-5) :** In each of the following questions a short passage is given with one of the lines in the passage missing and represented by a blank. Select the best out of the five answer choices given, to make the passage complete and coherent.

1. After the East Asia crisis, the World Bank conducted a study on the underlying reasons for the crisis. It was found that at least a major part of the fundamental responsibility was on banks, which had understated their non performing accounts by as much as 47%. Since this was a study and not an investigation..... Nevertheless, the Basel committee on supervision did take cognizance, and issued circulars and directives not only on supervision, but also on Internal Functional Management. It will be remembered by those interested that Basel committee had also acted expeditiously after the Barring Bank's failure, to separate treasury and lending operations from the decision making processes. Bank failures are nothing new in the world, although we in India have been insulated g from such traumas for more than two decades.
  - (a) The findings were not taken note of
  - (b) The findings were not taken seriously
  - (c) The findings were not legally binding on any one
  - (d) The fallout from this revelation was only taken note of
  - (e) The fallout from this revelation was seriously taken
2. Whether the Government is right in bailing out a private sector bank is an issue that is decided more than by the long term social security policy of the Government ,than by economic reasons alone..... Nevertheless, in a situation of scarcity of resources, bailing out somebody means the denial of resources to others. The irony of it is that in performing its duties of proper governance to the larger society through the process of bailing out, Government excuses the lack of corporate governance in banks.
  - (a) Economists world over learnt it hard way during the Great depression
  - (b) This is elementary principle of economics taught in schools
  - (c) Reasons are not limited to these two but extend to debts, liquidity & credit ratings issues
  - (d) It was unexpected and came like a bolt from the blue
  - (e) Particularly true for the Asian countries like India and China
3. But no depreciation is allowed on Live Stock i.e. Horses .Although the horses are in the nature of fixed assets in the hands of the owner, no depreciation is allowed under Income Tax Act. Instead when the animal dies or becomes permanently useless the entire value of the horse can be written off as revenue loss in the year in which it dies or becomes permanently useless. When the gross income exceeds the total expenditure, it results in net profit which will be taxable at usual rates of tax applicable to the person. .... Although the live stock is in the nature of fixed assets of the owners buy them, maintain them, train them, and participate in races and Sell them or send them away to studs when they are useless.
  - (a) But when the gross income is less than the expenditure, then results in loss
  - (b) But when the gross income is higher than the expenditure, then results in loss
  - (c) But when the gross income is equal to expenditure then result is loss
  - (d) But when the gross income is there loss is the result
  - (e) But when the gross income is increasing then result is becoming evident
4. Aggregation of risks is somewhat quite new to banks in India. While some banks have started thinking in that line by trying to put integrated limits framework and integrated risk policies as well as using CBS solutions for technological integration, the effort required is beyond such requirement. Risk aggregation would mean aggregating the individual risk measures to decide most appropriate assets class that would contain the risk to the desired level dictated by the risk appetite .Capital allocation (about how much) would be based on such strategies.....
  - (a) Most banks are yet to conceptualize the same in their processes
  - (b) Most banks have already integrated it in their functioning; it is working over the years satisfactorily.
  - (c) Which would in long run prove to be the growth impeding
  - (d) Of risk aggregation which is really a new concept to Indian banks
  - (e) On expected lines of the regulation conditions laid down in the manual of the bank

RESPONSE  
GRID

1. (a)(b)(c)(d)(e) 2. (a)(b)(c)(d)(e) 3. (a)(b)(c)(d)(e) 4. (a)(b)(c)(d)(e)

5. However, it is possible that the non-resident entity may have a business connection with the resident Indian entity. In such a case, the resident Indian entity could be treated as Permanent Establishment of the nonresident entity. ....During the last decade or so, India has seen a steady growth of outsourcing of business processes by non residents or foreign companies to IT-enabled entities in India. Such entities are either branches or associated enterprises of the foreign enterprise or an independent India enterprise. The nonresident entity or foreign company will be liable to tax in India only if the IT-enabled BPO unit in India constitutes its Permanent Establishment.
- The tax treatment of the Permanent Establishment in such a case is under consideration
  - How the profit would be shared is not decided yet?
  - A lengthy and cumbersome process requiring a lot of application of mind and revenue principles is ahead for the tax department of India
  - A new trend is seen in last decade.
  - Indian companies have a lot on stake as competition increases.

**Directions (Qs. 6-10) :** Which of the phrases (a), (b), (c) and (d) given below each statement should be placed in the blank space provided so as to make a meaningful and grammatically correct sentence? If none of the sentences is appropriate, mark (e), ie 'None of these', as the answer.

6. Refuting the rationale behind frequent agitations for formation of separate States, a recent report \_\_\_\_\_.
- proved that such agitations result in loss of governmental property
  - indicated that the formation of small states does not necessarily improve the economy
  - suggested that only large-scale agitations have been effective in bringing out desired change in the past
  - recommended dividing large States into smaller ones to improve governance
  - None of these
7. Overlooking the fact that water scarcity intensifies during summer, \_\_\_\_\_.
- the government issued guidelines to all builders to limit their consumption to acceptable limits
  - provision for rainwater harvesting has been made to aid irrigation in drought-prone areas
  - the water table did not improve even after receiving normal monsoon in the current year
  - many residential areas continue to use swimming pools, wasting large quantities of water
  - None of these

8. He has lost most of his life's earning in the stock market but \_\_\_\_\_.
- he still seems to be leading his life luxuriously and extravagantly
  - he could not save enough to repay his enormous debts
  - stock market is not a safe option to invest money unless done with caution
  - experts have been suggesting to avoid investments in stock market because of its unpredictable nature
  - None of these
9. Achieving equality for women is not only a laudable goal, \_\_\_\_\_.
- political reforms are also neglected preventing women from entering legislatures and positions of power
  - the problem is also deep-rooted in the society and supported by it
  - their empowerment is purposefully hampered by people with vested interests in all sections of the society
  - it is also equally difficult to achieve and maintain for a long term
  - None of these
10. \_\_\_\_\_ or else they would not keep electing him year after year.
- The party leader gave a strong message to the mayor for improving his political style
  - Owing to numerous scandals against the mayor, he was told to resign from the post immediately
  - The mayor threatened the residents against filing a complaint against him
  - The residents must really be impressed with the political style of their mayor
  - None of these

**Directions (Qs. 11-20) :** Which of the phrases (a), (b), (c) and (d) given below each statement should be placed in the blank space provided so as to make a meaningful and grammatically correct sentence? If none of the sentences is appropriate, mark (e) as the answer.

11. ....the soil today is nowhere as rich in native minerals as it used to be some centuries ago.
- As there is a growing consent among farmers regarding limiting the use of chemical fertilizers
  - As the chemical inputs in agriculture improved the yield many folds
  - Owing to the uninhibited use of chemical inputs in agriculture
  - Awareness among farmers regarding the side effects of chemical farming grew when
  - None of the above



12. Although information technology has entered the homes, offices and hearts of many citizens of India,.....
- (a) India provides the highest number of IT experts to the world every year
  - (b) many people in rural areas still remain ignorant of its immense benefits
  - (c) government has done its best by funding research in this field appropriately
  - (d) the face of communication in the years to come would change completely from the bygone years
  - (e) None of the above
13. While the environment friendly nuclear energy could make a large addition to the energy resources,.....
- (a) experts have a lot of expectations from this cleaner method of producing energy
  - (b) the government is determined to extract maximum out of this technology in the near future
  - (c) international lobby has been pressurizing the developing nations to shift their energy production from coal to nuclear power.
  - (d) the problem of locating adequate numbers of Uranium reserves to run the reactors is yet to be sorted out
  - (e) None of the above
14. ...., experts proposed the idea of a common school system.
- (a) Overlooking the fundamental right of quality education of every child in India
  - (b) Since the curricular requirements of a rural child is different from an urban child
  - (c) Based on the fact that difference in the quality of schools acts as a ground for discrimination
  - (d) Since a large percentage of Indian children are getting free education
  - (e) None of the above
15. As allegations of crores of rupees changing hands to permit illegal mining began to fly thick and fast,.....
- (a) government ordered an enquiry which exposed a nexus between mine operators and bureaucrats
  - (b) it caused great damage to the surrounding ecosystem and the environment in general
  - (c) the officials have been irresponsible in failing to bring it to the notice of the court in time
  - (d) the powerful mining lobby had bribed the officials to obtain permit for mining on ecologically sensitive land
  - (e) None of the above
16. After two years, high inflation moderated in the later part of 2011-12 in response to past monetary tightening and growth deceleration. High inflation had adverse consequences on welfare and on saving and investment, particularly household saving in financial assets. The most serious consequence of inflation is ..... As growth slowed down, in part due to high inflation, it further reduced the welfare of the common man through adverse impact on employment and incomes.
- (a) its destructive allocation impact on the industries that were lately coming up.
  - (b) its negative impact on the rich and high-profile people.
  - (c) its adverse distributional impact on the poor, people without social security and pensioners.
  - (d) its wayward consequences on the public distribution system meant for the poor.
  - (e) its unfavourable bearing on day to day commodities that are used by the common man.
17. Current indications are that fiscal targets can again be missed in 2013-14, unless immediate remedial measures are undertaken. The risks to fiscal targets laid down for 2013-14 are large if the envisaged tax buoyancies are not realised and the cap on subsidies is not adhered to. During the first quarter of 2013-14, the fiscal deficit of the central government was more than one third of the budget estimate for the whole year. Estimates of fiscal multipliers for India show that while impact multiplier on growth is higher for revenue and expenditures, the long-run multiplier is higher for capital outlays. In this context, credible fiscal consolidation..... is crucial for improving long-run growth prospects.
- (a) accompanied with macro-financial stability
  - (b) accompanied with an expenditure switching strategy that reduces government's revenue spending
  - (c) accompanied with the human face of its financial policy
  - (d) accompanied with a greater thrust on effective financial inclusion
  - (e) accompanied with higher capital outlay

<b>RESPONSE GRID</b>	<b>12.</b> (a)(b)(c)(d)(e)	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)
	<b>17.</b> (a)(b)(c)(d)(e)				

18. During 2011-12, the banking sector remained robust with high capital adequacy, even though rising NPA levels emerged as a concern. The NPAs, however, are in part a reflection of overall slowdown in the economy. An analysis using data since June 2000 brings out this pro-cyclicality in asset quality of Indian banks. The Reserve Bank has undertaken several initiatives ..... facilitating better banking experience for the disabled and intra-bank transfer of deposit facility to benefit the common man.
- (a) like some concrete steps to attract FDI in this sector
  - (b) like faster grievances redressal mechanism
  - (c) like steps to augment the production potential of core sectors
  - (d) like initiatives to augment non-debt creating flows
  - (e) like initiatives to improve transparency and accountability
19. With limited fiscal and monetary space available to provide a direct stimulus to domestic growth, an expenditure switching policy is needed that reduces government's revenue spending by cutting subsidies and using the resources so released to step up public capital expenditures. Such an action would also provide some space for monetary policy, but, importantly, lower interest rates alone are unlikely to jumpstart the investment cycle. Fast-tracking of infrastructure projects and pending regulatory clearances..... The Government has initiated some steps to augment the production potential of core sectors, in particular mining, in the recent period.
- (a) will be detrimental to exports
  - (b) will hamper the economic growth
  - (c) will help to boost investments
  - (d) will encourage to boost the performance of core industries.
  - (e) will lead revival of industrial growth
20. During 2011-12, the Reserve Bank continued with its efforts to strengthen security features of banknotes and increase public awareness ..... There was a marked decline in the volume and value of small coins in circulation in 2011-12 as coins of denomination of 25 paise and below ceased to be legal tender from June 30, 2011. A committee constituted by the government is examining the issues relating to the increase in demand for coins and supply/distribution bottlenecks.
- (a) to address the challenge of counterfeit notes
  - (b) to initiate steps to encourage debit/credit cards in place of banknotes
  - (c) to handle the situation of using smaller denomination of coins
  - (d) to cover the expenses of printing new banknotes
  - (e) to stop the menace of black money



101 SPEED TEST

77

## ENGLISH SECTION TEST

Max. Marks : 40

No. of Qs. 40

Time : 25 min.

Date : ...../...../.....

**Directions (Q. 1-15) :** Read the following passage carefully and answer the questions given below it. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.

In February 2010 the Medical Council of India announced a major change in the regulation governing the establishment of medical colleges. With this change, corporate entities were **permitted** to open medical colleges. The new regulation also carried the following warning : “permission shall be withdrawn if the colleges resort to commercialization”. Since the regulation does not elaborate on what constitutes “resorting to commercialization”, this will presumably be a matter left to the discretion of the Government.

A basic requirement for a new medical college is a pre-existing hospital that will serve as a teaching hospital. Corporate entities have hospitals in the major metros and that is where they will have to locate medical colleges. The earlier mandated land requirement for a medical college campus, a minimum of 25 acres of contiguous land, cannot be fulfilled in the metros. Not surprisingly, yet another tweak has been made in the regulation, prescribing 10 acres as the new minimum campus size for 9 cities including the main metros. With this, the stage is set for corporate entities to enter the medical education market.

Until now, medical education in India has been projected as a not-forprofit activity to be organised for the public good. While private bodies can run medical colleges, these can only be societies or trusts, legally non-profit organizations. In opening the door to corporate colleges, thus, a major policy change has been effected without changing the law or even a discussion in Parliament, but by simply getting a **compliant** MCI to change the regulation on establishment of medical colleges. This and other changes have been justified in the name of addressing the shortage of doctors. At the same time, over 50 existing medical colleges, including 15 run by the government, have been prohibited from admitting students in 2010 for having failed to meet the basic standards prescribed. Ninety per cent of these colleges have come up in the last 5 years. Particularly **shocking** is the phenomenon of government colleges **falling short** of standards approved by the Government. Why are state government institutions not able to meet the requirements that have been approved by the central government ? A severe problem faced by government-run institutions is attracting and retaining teaching faculty, and this is likely to be among the major reasons for these colleges failing to satisfy the MCI norms. The crisis building up on the faculty front has been **flagged** by various commissions looking into problems of medical education over the years.

An indicator of the crisis is the attempt to conjure up faculty when MCI carries out inspections of new colleges, one of its regulatory functions. Judging by news reports, the practice of presenting fake faculty – students or private medical practitioners hired for the day – during MCI inspections in private colleges is common. What is interesting is that even government colleges are adopting **unscrupulous** methods. Another indicator is the extraordinary scheme, verging on the ridiculous that is being put in place by the MCI to make inspections ‘foolproof’. Faculty in all medical colleges are to be issued an RFID-based smart card by the MCI with a unique Faculty Number. The card, it is argued, will eliminate the possibility of a teacher being shown on the faculty of more than one college and establish if the qualifications of a teacher are genuine. In the future, it is projected that biometric RFID readers will be installed in the colleges that will enable a Faculty Identification, Tracking and Monitoring System to monitor faculty from within the college and even remotely from MCI headquarters.

The picture above does not even start to reveal the true and pathetic situation of medical care especially in rural India. Only a fraction of the doctors and nursing professionals serve rural areas where 70 per cent of our population lives. The Health Ministry, with the help of the MCI, has been active in proposing yet another ‘innovative’ solution to the problem of lack of doctors in the rural areas. The proposal is for a three-and-a-half year course to obtain the degree of Bachelor of Rural Medicine and Surgery (BRMS). Only rural candidates would be able to join this course. The study and training would happen at two different levels – Community Health Centers for 18 months, and sub-divisional hospitals for a further period of 2 years – and be conducted by retired professors. After completion of training, they would only be able to serve in their own state in district hospitals, community health centres, and primary health centres.

The BRMS proposal has invited **sharp** criticism from some doctors’ organizations on the grounds that it is discriminatory to have two different standards of health care – one for urban and the other for rural areas, and that the health care provided by such graduates will be compromised. At the other end is the opinion expressed by some that “something is better than nothing”, that since doctors do not want to serve in rural areas, the government may as well create a new cadre of medics who will be obliged to serve there. The debate will surely pick up after the government formally lays out its plans. What is apparent is that neither this proposal nor the various stopgap measures adopted so far address the root of the problem of health care.

The far larger issue is government policy, the low priority attached by the government to the social sector as a whole and the health sector in particular, evidenced in the paltry allocations for maintaining and upgrading medical infrastructure and medical education and for looking after precious human resources.

1. What solution is being offered by the Health Ministry for the shortage of doctors in rural areas ?
  - (a) Increase the number of government run hospitals in the rural areas thereby increasing the number of doctors catering to the people in these regions.
  - (b) Make it mandatory for doctors serving in the urban areas to serve in the rural areas for a specific number of years
  - (c) Set up increasing number of community health centres in rural areas
  - (d) Hire retired professors of medicine to offer medical help to people living in the rural areas till the time more doctors are appointed
  - (e) Run a separate medical course for three and a half years which can be taken up only by rural candidates who would ultimately serve in the rural areas
2. Why have some existing medical colleges been prohibited from admitting students ?
  - (a) As these have adopted corrupt practices and have been taking huge donations from their students
  - (b) As all these colleges were illegally set up and were not approved by the government in the first place
  - (c) As the course offered by these colleges is not in line with the course offered by the government run colleges
  - (d) As these have failed to meet the norms set by the central government for running the college
  - (e) As there are absolutely no faculty members left in these colleges to teach students
3. Which of the following is/are the change/s announced by the MCI in the regulation governing the establishment of medical college?
  - (A) Allowing the commercialization of medical colleges.
  - (B) Reducing the earlier mandated land requirement for a medical college campus for metros.
  - (C) Allowing corporate bodies to open medical colleges.
  - (a) Only (B)                      (b) Only (A) and (B)
  - (c) Only (C)                      (d) Only (B) and (C)
  - (e) All (A), (B) and (C) are true
4. Which of the following are the different opinions regarding the BRMS proposal ?
  - (A) At least a small step has been taken to improve the healthcare facilities in the rural areas through this proposal.
  - (B) There should be uniform healthcare facilities available for people living in both rural and urban area
  - (C) The healthcare providers through this proposal would not be up to the mark.
  - (a) Only (A)                      (b) Only (A) and (B)
  - (c) Only (B) and (C)            (d) Only (B)
  - (e) All (A), (B) and (C)
5. Which of the following is possibly the most appropriate title for the passage ?
  - (a) Healthcare in India – The Questionable Changes
  - (b) Medical Centres in Rural India
  - (c) Commercialization of Medical Education in India
  - (d) The Medical Council of India
  - (e) The BRMS Proposal – The Way Out for Rural India
6. What is one of the major problems faced by the government-run medical institutions ?
  - (a) Dearth of land required for the setting up of medical institutions
  - (b) Lack of funds for running the colleges
  - (c) Dearth of teaching faculty
  - (d) Excessive competition from colleges run by corporate bodies
  - (e) Dearth of students opting for these colleges
7. What is the idea behind the MCI putting in place the RFID-based smart card ?
  - (A) To monitor and track faculty from MCI headquarters in the future.
  - (B) To put a stop to the practice of colleges of presenting fake faculty members.
  - (C) To verify the authenticity of faculty member qualifications.
  - (a) Only (A) and (B)            (b) All (A), (B) and (C)
  - (c) Only (C)                      (d) Only (B) and (C)
  - (e) Only (B)
8. What is the author's main intention behind writing this passage ?
  - (a) To make the general public aware of the healthcare facilities available in India
  - (b) To bring to light the problems faced by the healthcare sector in India despite changes suggested and goad the government into attaching priority to the sector
  - (c) To bring to light the problems faced by rural people in terms of healthcare facilities and thus exhort urban doctors to serve in the rural areas
  - (d) To make the general public aware of the benefits arising from the changes brought about by the MCI in the healthcare sector
  - (e) To urge the corporate bodies to look into the matter of healthcare facilities in the rural areas

**Directions (Q. 9–12) :** Choose the word/group of words which is most similar in meaning to the word/group of words printed in bold as used in the passage.

9. **FLAGGED**  
 (a) highlighted (b) stopped (c) bannered  
 (d) caused (e) hoisted
10. **FALLING SHORT**  
 (a) remaining tiny (b) limiting  
 (c) stumbling upon (d) just satisfying  
 (e) not meeting
11. **PERMITTED**  
 (a) forbidden (b) pressed (c) allowed  
 (d) sent (e) forced
12. **SHOCKING**  
 (a) wicked (b) pleasing (c) appalling  
 (d) electrifying (e) scandalous

**Directions (Q. 13–15) :** Choose the word/group of words which is most opposite in meaning to the word/ group of words printed in bold as used in the passage.

13. **UNSCRUPULOUS**  
 (a) corrupt (b) even (c) constant  
 (d) honest (e) measured
14. **SHARP**  
 (a) mild (b) thin (c) blunt  
 (d) rounded (e) pointed
15. **COMPLIANT**  
 (a) fixed (b) unyielding (c) stagnant  
 (d) obedient (e) negative

**Directions (Qs. 16-20):** Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph, then answer the questions given below them.

- (A) Do the devices that make it possible to do so many things at once truly raise our productivity or merely help us spin our wheels faster?
- (B) More important, they're exploring what can be done about it – how we can work smarter, live smarter and put our beloved gadgets back in their proper place, with us running them, not the other way around.
- (C) The dinging digital devices that allow us to connect and communicate so readily also disrupt our work, our thoughts and what little is left of our private lives.
- (D) They have begun to calculate the pluses, the minuses and the economic costs of the interrupted life – in dollars, productivity and dysfunction.

- (E) What sort of toll is all this disruption and mental channel switching taking on our ability to think clearly work effectively and function as healthy human beings?
- (F) Over the past five years, psychology, efficiency experts and information-technology researchers have begun to explore those questions in detail.
16. Which of the following should be the **FIRST** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
17. Which of the following should be the **SECOND** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
18. Which of the following should be the **THIRD** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) F
19. Which of the following should be the **FIFTH** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E
20. Which of the following should be the **SIXTH (LAST)** sentence?  
 (a) A (b) B (c) C  
 (d) D (e) E

**Directions (Qs. 21-25):** Which of the phrases (a), (b), (c) and (d) given below each sentence should replace the phrase printed in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark (e) as the answer.

21. The world is becoming increasingly polarised **between the rich** and the poor.  
 (a) among rich (b) around the rich  
 (c) in between the rich (d) amid rich persons  
 (e) No improvement
22. Apollo was worshipped as long as the Roman Empire **continued**.  
 (a) was continued (b) ruled (c) lasted  
 (d) did not exist (e) No improvement
23. The honourable court **had taken a leniency view** because the accused had no previous criminal record.  
 (a) had viewed leniency  
 (b) had taken a leniency viewing  
 (c) had taken a lenient view  
 (d) took a lenient view  
 (e) No correction required
24. Our foreign exchange reserves **have been increased substantial**.  
 (a) have been increased substantially  
 (b) have increased substantially  
 (c) have substantially increasing  
 (d) had increased substantially  
 (e) No correction required

<b>RESPONSE GRID</b>	9. (a) (b) (c) (d) (e)	10. (a) (b) (c) (d) (e)	11. (a) (b) (c) (d) (e)	12. (a) (b) (c) (d) (e)	13. (a) (b) (c) (d) (e)
	14. (a) (b) (c) (d) (e)	15. (a) (b) (c) (d) (e)	16. (a) (b) (c) (d) (e)	17. (a) (b) (c) (d) (e)	18. (a) (b) (c) (d) (e)
	19. (a) (b) (c) (d) (e)	20. (a) (b) (c) (d) (e)	21. (a) (b) (c) (d) (e)	22. (a) (b) (c) (d) (e)	23. (a) (b) (c) (d) (e)
	24. (a) (b) (c) (d) (e)				

25. Every novel activity **will be likely to face** resistance from vested interests.
- is likely to face
  - will be likely facing
  - would be like facing
  - would like to face
  - No correction required
30. The perpetual spinning of particles is much like that of a top, with one significant difference, unlike the top, the particles have no need to be wound up, for ..... is one of their ..... properties.
- revolution- radical
  - rotation- intrinsic
  - motion- intangible
  - acceleration- hypothetical
  - None of these

**Directions (Qs. 26-30):** Each question below has two blanks, each blank indicating that something has been omitted. Find out which option can be used to fill up the blank in the sentence in the same sequence to make it meaningfully complete.

26. A new law has been passed stating that no actor would be allowed to shoot beyond twelve hours in a day and those who ..... this norm would henceforth be ..... for it.
- followed, punished
  - accompanied, reprimanded
  - flouted - penalized
  - defied, applauded
  - obeyed, disciplined
27. The newly-opened restaurant at the District Centre ..... to the tastes of people from all walks of life and one is likely to find an ..... group there.
- appeals - archetypal
  - panders - connoisseur
  - caters - eclectic
  - inhibits - diverse
  - None of these
28. Physicians may soon have \_\_\_\_\_ to help paralysed people move their limbs bypassing the \_\_\_\_\_ nerves that once controlled their muscles.
- instruments – detrimental
  - ways – damaged
  - reason – involuntary
  - impediments – complex
  - None of these
29. As \_\_\_\_\_ head of the organisation, he attended social functions and civil meetings, but had no \_\_\_\_\_ in the formulation of company policy.
- hypothetical-vote
  - titular-voice
  - nominal-competition
  - former-pride
  - None of these

**Directions (Qs. 31-40):** In the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words, are suggested one of which fits the blank appropriately. Find out the appropriate word in each case.

Most of us are (31) of open conflict and avoid it if we can. And there is a (32) to expressing and working through conflict. If the working through involves harsh words and name-calling people feel deeply hurt and relationships can be (33). Sometimes permanently. Some group members may be afraid that if they really (34) their anger, they may go out of control and become Violent, or they may do this. These fears can be very (35) and based on experience. So why take the risk ? Why not avoid conflict at all costs ? Conflict is rather like disease (36) is best, that means attending to areas where (37) may occur before they become an issue. If you have not (38) a conflict happening, your next choice is to treat it early, or hope that it goes away. If it goes away over time fine. If it (39), then you will still have to handle (treat) it and it is likely to be more (40).

31. (a) scared (b) careful (c) reckless  
(d) aware (e) worried
32. (a) challenge (b) measure (c) principle  
(d) chance (e) risk
33. (a) established (b) maligned (c) damaged  
(d) rebuilt (e) involved
34. (a) sublimate (b) express (c) minimize  
(d) regulate (e) control
35. (a) baseless (b) imaginary (c) real  
(c) exaggerative (d) national
36. (a) cure (b) diagnosis (c) prevention  
(c) prescription (d) medicine
37. (a) harmony (b) discomfiture (c) consensus  
(c) disagreement (d) statement
38. (a) expressed (b) ignored (c) induced  
(d) seen (e) perverted
39. (a) doesn't (b) won't (c) don't  
(d) not (e) hasn't
40. (a) credible (b) serious (c) fraudulent  
(d) urgent (e) skilled

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 25. (a) (b) (c) (d) (e) | 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) | 28. (a) (b) (c) (d) (e) | 29. (a) (b) (c) (d) (e) |
| 30. (a) (b) (c) (d) (e) | 31. (a) (b) (c) (d) (e) | 32. (a) (b) (c) (d) (e) | 33. (a) (b) (c) (d) (e) | 34. (a) (b) (c) (d) (e) |
| 35. (a) (b) (c) (d) (e) | 36. (a) (b) (c) (d) (e) | 37. (a) (b) (c) (d) (e) | 38. (a) (b) (c) (d) (e) | 39. (a) (b) (c) (d) (e) |
| 40. (a) (b) (c) (d) (e) |                         |                         |                         |                         |



**101 SPEED TEST**

**78**

**COMPUTER FUNDAMENTALS**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Most of the commonly used personal computers/laptops do not have a command key known as \_\_\_\_\_.  
(a) Turnover (b) Shift (c) Alter  
(d) Delete (e) Insert
2. What is the full form of USB as used in computer related activities?  
(a) Universal Security Block  
(b) Ultra Series Block  
(c) United Servial Block  
(d) Universal Serial Bus  
(e) None of these
3. Which of the following is NOT a hardware of a computer?  
(a) Monitor (b) Key Board  
(c) Windows (d) Central Processing Unit  
(e) Mouse
4. A Program designed to destroy data on your computer which can travel to "infect" other computers is called a \_\_\_\_\_.  
(a) disease (b) torpedo (c) hurricane  
(d) virus (e) None of these
5. Most of the commonly available personal computers/laptops have a keyboard popularly known as \_\_\_\_\_.  
(a) QWERTY (b) QOLTY (c) ALTER  
(d) UCLIF (e) None of these
6. Whenever we have to give space between the two words while typing on a PC we have to press a key known as \_\_\_\_\_.  
(a) Backspace (b) Shift (c) Control  
(d) Escape (e) Space Bar
7. A device that connects to a network without the use of cables is said to be \_\_\_\_\_.  
(a) distributed (b) wireless (c) entralized  
(d) open source (e) None of these
8. What is the most common way to get a virus in your computer's hard disk?  
(a) By installing games from their CDROMS  
(b) By uploading pictures from mobile phones to the computer  
(c) By opening emails  
(d) By sending emails  
(e) None of these
9. Codes consisting of bars or lines of varying widths or lengths that are computer-readable are known as \_\_\_\_\_.  
(a) an ASCII code (b) a magnetic tape  
(c) an OCR scanner (d) a bar code  
(e) None of these
10. A \_\_\_\_\_ is a unique name that you give to a file of information.  
(a) device letter (b) folder  
(c) filename (d) filename extension  
(e) None of these
11. Computers send and receive data in the form of \_\_\_\_\_ signals.  
(a) Analog (b) Digital  
(c) Modulated (d) Demodulated  
(e) All of these
12. Every component of your computer is either  
(a) software or CPU/RAM  
(b) hardware or software  
(c) application software or system software  
(d) input devices or output devices  
(e) None of these
13. A CD-RW disk \_\_\_\_\_  
(a) has a faster access than an internal disk  
(b) is a form of optical disk, so it can only be written once  
(c) can be erased and rewritten  
(d) None of these
14. The smallest unit of information a computer can understand and process is known as a \_\_\_\_\_.  
(a) digit (b) byte (c) megabyte  
(d) kilobyte (e) bit
15. Compatibility, with regard to computers, refers to  
(a) the software doing the right job for the user  
(b) it being versatile enough to handle the job  
(c) the software being able to run on the computer  
(d) software running with only other previously installed software  
(e) software permanently available in the computer

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |

16. A byte can represent any number between 0 and \_\_\_\_\_  
 (a) 2                      (b) 255                      (c) 256  
 (d) 1024                      (e) 1025
17. Connectivity for a new computer means  
 (a) allowing a printer to be connected to it  
 (b) having a modem and/or network connection to communicate with other computers  
 (c) connecting the software to the hardware of the system  
 (d) connecting a mouse a keyboard and a printer – all essential hardware pieces for the average user
18. A \_\_\_\_\_ is used to read handwritten or printed text to make a digital image that is stored in memory.  
 (a) printer                      (b) laser beam                      (c) scanner  
 (d) touchpad                      (e) keyboard
19. The most widely used code that represents each character as a unique 8-bit code is  
 (a) ASCII  
 (b) Unicode  
 (c) binary numbering system  
 (d) EBCDIC  
 (e) ACSII
20. OCR stands for  
 (a) Optical Coding Recognizer  
 (b) Ostensibly Characterised Reader  
 (c) Original Code Reader  
 (d) Original Character Reader  
 (e) Optical Character Recognition
21. The permanently etched program in ROM that automatically begins executing the computer's instructions is the  
 (a) BIOS                      (b) ROM                      (c) CMOS  
 (d) RAM                      (e) None of these
22. Information stored in RAM is considered volatile, which means it is  
 (a) stored there permanently.  
 (b) not held permanently, only temporarily.  
 (c) stored when the electricity is shut off.  
 (d) stored permanently in the CPU devices  
 (e) None of these
23. The display size of a monitor is measured  
 (a) zig-zag  
 (b) horizontally  
 (c) vertically  
 (d) from center to the furthest corner  
 (e) diagonally
24. External devices such as printers, keyboards and modems are known as  
 (a) add-on devices.  
 (b) peripherals.  
 (c) extra hardware devices.  
 (d) PC expansion slot add-ons.  
 (e) special-buys
25. The higher the resolution of a monitor, the  
 (a) larger the pixels  
 (b) less clear the screen is  
 (c) further apart the pixels  
 (d) closer together the pixels  
 (e) None of these
26. For a computer to recognize and understand analog data, it must first be  
 (a) sent to a mainframe for interoperation  
 (b) analyzed by the ALU of the CPU  
 (c) decoded  
 (d) analyzed for viruses  
 (e) digitized
27. Expansion cards are inserted into  
 (a) slots                      (b) peripheral devices  
 (c) the CPU                      (d) the back of the computer  
 (e) pegs
28. The most common pointing input device is the  
 (a) trackball                      (b) touchpad  
 (c) touchscreen                      (d) mouse  
 (e) scanner
29. The wheel located between the two standard buttons on a mouse is used to  
 (a) click in Web pages  
 (b) shut down  
 (c) click and select items  
 (d) jump to different Web pages  
 (e) scroll
30. \_\_\_\_\_ can interpret voice data into words that can be understood by the computer  
 (a) Speech input hardware  
 (b) Talking software  
 (c) Word recognition software  
 (d) Speech recognition software  
 (e) Adobe reader

**RESPONSE  
GRID**

<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)
<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)
<b>26.</b> (a)(b)(c)(d)(e)	<b>27.</b> (a)(b)(c)(d)(e)	<b>28.</b> (a)(b)(c)(d)(e)	<b>29.</b> (a)(b)(c)(d)(e)	<b>30.</b> (a)(b)(c)(d)(e)





**101 SPEED TEST**

**79**

**MS OFFICE**

**Max. Marks : 28**

**No. of Qs. 28**

**Time : 20 min.**

**Date : ...../...../.....**

1. The quickest and easiest way in Word, to locate a particular word or phrase in a document is to use the \_\_\_\_\_ Command.  
(a) Replace (b) Find (c) Lookup  
(d) Search (e) None of these
2. Editing a document consists of reading through the document you've created, then \_\_\_\_\_.  
(a) correcting your errors  
(b) printing it  
(c) saving it  
(d) deleting it  
(e) None of these
3. Text and graphics that have been out of copied are stored in an area called the \_\_\_\_\_.  
(a) Pasteboard (b) Copyboard (c) Clipboard  
(d) Cuttingboard (e) None of these
4. What is the default file extension for all Word documents?  
(a) WRD (b) TXT (c) DOC  
(d) FIL (e) None of these
5. To indent the first paragraph of your report, you should use this key \_\_\_\_\_.  
(a) space bar (b) return key (c) tab key  
(d) shift key (e) None of these
6. You Microsoft Word by using \_\_\_\_\_ button.  
(a) New (b) Start (c) Program  
(d) Control Panel (e) None of these
7. Which of the following could you do to remove a paragraph from a report you had written?  
(a) Delete and edit (b) Highlight and delete  
(c) Cut and paste (d) Undo typing  
(e) None of these
8. You click at B to make the text \_\_\_\_\_.  
(a) Italics  
(b) Underlined  
(c) Italics and Underlined  
(d) Bold  
(e) None of these
9. For creating a document, you use \_\_\_\_\_ command at File Menu.  
(a) Open (b) Close (c) New  
(d) Save (e) None of these
10. The justification that aligns text on both margins of a document in Word is  
(a) Justify (b) Bold (c) Center  
(d) Right (e) Balanced
11. The shortcut key Ctrl + F in Word is used for  
(a) To view document in full view  
(b) To open the Formula dialog box  
(c) To save the file  
(d) To open the Find and Replace dialog box  
(e) None of these
12. The name of a Microsoft Office Word document is displayed in both the \_\_\_\_\_ and the taskbar.  
(a) menu bar (b) taskbar  
(c) Formatting toolbar (d) Standard toolbar  
(e) title bar
13. To select a word, you click it  
(a) once (b) twice  
(c) three times (d) four times  
(e) None of these
14. The file that is created through word processing is a  
(a) database file (b) storage file  
(c) worksheet file (d) document file  
(e) graphical file
15. When writing a document, you can use the \_\_\_\_\_ feature to find an appropriate word or an alternative word if you find yourself stuck for the right word.  
(a) dictionary (b) word finder  
(c) encyclopedia (d) thesaurus  
(e) None of these

**RESPONSE GRID**

1. (a) (b) (c) (d) (e)	2. (a) (b) (c) (d) (e)	3. (a) (b) (c) (d) (e)	4. (a) (b) (c) (d) (e)	5. (a) (b) (c) (d) (e)
6. (a) (b) (c) (d) (e)	7. (a) (b) (c) (d) (e)	8. (a) (b) (c) (d) (e)	9. (a) (b) (c) (d) (e)	10. (a) (b) (c) (d) (e)
11. (a) (b) (c) (d) (e)	12. (a) (b) (c) (d) (e)	13. (a) (b) (c) (d) (e)	14. (a) (b) (c) (d) (e)	15. (a) (b) (c) (d) (e)

16. Microsoft Office is an example of a \_\_\_\_\_.
- closed-source software
  - open-source software
  - horizontal-market software
  - vertical-market software
  - compiler
17. Each box in a spreadsheet is called a
- cell
  - empty space
  - record
  - field
  - None of these
18. You cannot link Excel worksheet data to a Word document \_\_\_\_\_.
- with the right drag method
  - with the hyperlink
  - with the copy and paste special commands
  - with the copy and paste buttons on the standard commands
  - All of these
19. In Excel, Charts are created using which option?
- Chart Wizard
  - Pivot Table
  - Pie Chart
  - Bar Chart
  - None of these
20. A partially completed workbook that contains formulas and formatting, but no data is called a
- Prototype
  - template
  - model
  - function
  - None of these
21. Each cell in a Microsoft Office Excel document is referred to by its cell address, which is the
- cell's column label
  - cell's column label and worksheet tab name
  - cell's row label
  - cell's row and column labels
  - cell's contents
22. Excel is designed to provide visual cues to the relationships between the cells that provide values to the formulas or the cells that depend on the formulas by
- Bolding the cell references to match the colour coding of the borders around the referenced worksheet cells
  - Highlighting the cell references.
  - Colour coding the cell references in the formula to match the borders around the referenced worksheet cells.
  - Bolding the cell references.
  - None of these
23. This Excel feature includes functions to calculate an Average, Minimum, Maximum and Count.
- Format
  - Number
  - AutoSum
  - Calculate
  - MIN
24. This is a set of values that you want to chart in Excel.
- Object
  - Numbers
  - Data Mart
  - Formulas
  - Data series
25. The .xls extension is used for \_\_\_\_\_ files.
- Windows
  - Access
  - PowerPoint
  - Word
  - Excel
26. To copy a cell, you would drag the cell border while simultaneously holding down the Ctrl key when
- You have one or more cells to copy.
  - Only some of the cells are visible in the window.
  - You don't want to refer to absolute references.
  - The distance between cells is short and they are both visible in the window.
  - None of these
27. In Excel, \_\_\_\_\_ contains one or more worksheets.
- Template
  - Workbook
  - Active cell
  - Label
  - None of these
28. Numbers in table columns are usually
- right-aligned
  - left-aligned
  - justified
  - centered
  - None of these

**RESPONSE  
GRID**

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| 16. a b c d e | 17. a b c d e | 18. a b c d e | 19. a b c d e | 20. a b c d e |
| 21. a b c d e | 22. a b c d e | 23. a b c d e | 24. a b c d e | 25. a b c d e |
| 26. a b c d e | 27. a b c d e | 28. a b c d e |               |               |



**101 SPEED TEST**

80

OPERATING SYSTEM

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Which of the following is NOT a famous operating system?  
 (a) Windows Vista (b) Mac OS X (c) Linux  
 (d) Sun OS (e) Virtual Box
2. Window 95, Windows 98 and Windows NT are known as  
 (a) processors (b) domain names (c) modems  
 (d) operating systems (e) None of these
3. How many options does a binary choice offer?  
 (a) One (b) Two (c) Three  
 (d) It depends on the amount of memory in the computer  
 (e) None of the above
4. RAM is \_\_\_\_\_ and \_\_\_\_\_.  
 (a) volatile, temporary  
 (b) nonvolatile, permanent  
 (c) nonvolatile, temporary  
 (d) volatile, permanent  
 (e) None of the above
5. The \_\_\_\_\_ indicates how much data a particular storage medium can hold.  
 (a) access (b) capacity (c) memory  
 (d) storage (e) None fo the above
6. What is a file?  
 (a) A file is a section of main storage used to store data.  
 (b) A file is a collection of information that has been given a name and is stored in secondary memory.  
 (c) A file is the part of a program that is used to describe what the program should do.  
 (d) A file is another name for floppy disk.  
 (e) None of the above
7. How is it possible that both programs and data can be stored on the same floppy disk?  
 (a) A floppy disk has two sides, one for data and one for programs.  
 (b) Programs and data are both software, and both can be stored on any memory device.  
 (c) A floppy disk has to be formatted for one or for the other.  
 (d) Floppy disks can only store data, not programs.  
 (e) None of the above
8. Two different files can have the same name if  
 (a) they are in different folders  
 (b) they are on different drives  
 (c) Never  
 (d) the names are capitalised differently  
 (e) None of the above
9. The first computers were programmed using  
 (a) assembly language (b) machine language  
 (c) spaghetti code (d) source code  
 (e) None of the above
10. The name of the location of a particular piece of data is its \_\_\_\_\_.  
 (a) address (b) mamory name  
 (c) storage site (d) data location  
 (e) None of the above
11. Applications are often referred to as  
 (a) data file (b) executable files  
 (c) system software (d) the operating system  
 (e) None of the above
12. A Field is a related group of \_\_\_\_\_.  
 (a) Records (b) Files (c) Characters  
 (d) Cables (e) None of the above
13. Housing all hardware, software, storage, and processing in one site location is called \_\_\_\_\_.  
 (a) time-sharing  
 (b) a distributed system  
 (c) centralized processing  
 (d) a host computer  
 (e) None of the above
14. Even if a disk drive fails, the computer application running and using it can continue processing. This application is said to have been designed with this feature called  
 (a) 100 percent up-time  
 (b) Fault tolerance  
 (c) High reliability  
 (d) All of these  
 (e) None of these
15. The process of transferring files from a computer on the Internet to your computer is called \_\_\_\_\_.  
 (a) downloading (b) uploading (c) FTP  
 (d) JPEG (e) downsizing

RESPONSE  
GRID

1. (a)(b)(c)(d)(e)	2. (a)(b)(c)(d)(e)	3. (a)(b)(c)(d)(e)	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)
6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)

16. Cache and main memory will lose their contents when the power is off. They are \_\_\_\_\_.
- (a) dynamic (b) static (c) volatile  
(d) non-volatile (e) faulty
17. Every computer has a(n) \_\_\_\_\_; many also have \_\_\_\_\_.
- (a) operating system; a client system  
(b) operating system; instruction sets  
(c) application programs; an operating system  
(d) application programs; a client system  
(e) operating system; application programs
18. The main job of a CPU is to \_\_\_\_\_.
- (a) carry out program instructions  
(b) store data/information for future use  
(c) process data and information  
(d) Both (a) and (c)  
(e) None of these
19. An example of a processing device would be \_\_\_\_\_.
- (a) a magnetic ink reader  
(b) a tablet PC  
(c) special function cards  
(d) scanners  
(e) keyboards
20. The operating system called UNIX is typically used for
- (a) Desktop computers  
(b) Laptop computers  
(c) Super computers  
(d) Web servers  
(e) All of these
21. URL stands for
- (a) Universal Research List  
(b) Universal Resource List  
(c) Uniform Research List  
(d) Uniform Research Locator  
(e) Uniform Resource Locator
22. When data changes in multiple lists and all lists are not updated, this causes
- (a) data redundancy (b) information overload  
(c) duplicate data (d) data inconsistency  
(e) data repetition
23. What is a backup?
- (a) Restoring the information backup  
(b) An exact copy of a system's information  
(c) The ability to get a system up and running in the event of a system crash or failure  
(d) All of these  
(e) None of these
24. Which process checks to ensure the components of the computer are operating and connected properly?
- (a) Booting (b) Processing (c) Saving  
(d) Editing (e) Starting
25. Physical security is concerned with protecting computer hardware from human tempering and natural disasters and \_\_\_\_\_ security is concerned with protecting software from unauthorised tampering or damage.
- (a) data (b) cyber (c) Internet  
(d) metaphysical (e) publicity
26. Executing more than one program concurrently by one user on one computer is known as
- (a) multi-programming (b) multi-processing  
(c) time sharing (d) multi-tasking  
(e) multi-action
27. All computers must have
- (a) a word processing software  
(b) an operating system  
(c) an attached printer  
(d) a virus checking program  
(e) None of these
28. After a user has saved and deleted many files, many scattered areas of stored data remain that are too small to be used efficiently, causing \_\_\_\_\_.
- (a) disorder (b) turmoil (c) disarray  
(d) fragmentation (e) None of these
29. When you instal a new program on your computer, it is typically added to the \_\_\_\_\_ menu.
- (a) All Programs (b) Select Programs  
(c) Start Programs (d) Desktop Programs  
(e) None of these
30. Which of the following contains information about a single "entity" in the database like a person, place, event, or thing?
- (a) query (b) form (c) record  
(d) table (e) None of these

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 16. (a)(b)(c)(d)(e) | 17. (a)(b)(c)(d)(e) | 18. (a)(b)(c)(d)(e) | 19. (a)(b)(c)(d)(e) | 20. (a)(b)(c)(d)(e) |
| 21. (a)(b)(c)(d)(e) | 22. (a)(b)(c)(d)(e) | 23. (a)(b)(c)(d)(e) | 24. (a)(b)(c)(d)(e) | 25. (a)(b)(c)(d)(e) |
| 26. (a)(b)(c)(d)(e) | 27. (a)(b)(c)(d)(e) | 28. (a)(b)(c)(d)(e) | 29. (a)(b)(c)(d)(e) | 30. (a)(b)(c)(d)(e) |



101 SPEED TEST

81

**SOFTWARES**

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

1. What kind of software would you most likely use to keep track of a billing account?  
(a) Word processing  
(b) Electronic publishing  
(c) Spreadsheet  
(d) Web authoring  
(e) None of these
2. \_\_\_\_\_ are graphical objects used to represent commonly used application.  
(a) GUI (b) Drivers  
(c) Windows (d) Application  
(e) Icons
3. In any window, the maximize button, the minimize button and the close buttons appear on  
(a) The title bar (b) Menu bar  
(c) Status bar (d) Ruler bar  
(e) Tool bar
4. Checking that a pin code number is valid before it is entered into the system is an example of  
(a) error correction  
(b) backup and recovery  
(c) data preparation  
(d) data validation  
(e) None of these
5. The two major categories of software include  
(a) operating system and utility  
(b) Personal productivity and system  
(c) system and application  
(d) system and utility  
(e) None of these
6. Which is the best definition of a software package?  
(a) An add-on for your computer such as additional memory  
(b) A set of computer programs used for a certain function such as word processing  
(c) A protection you can buy for a computer  
(d) The box, manual and license agreement that accompany commercial software  
(e) None of these
7. A directory within a directory is called.  
(a) Mini Directory  
(b) Junior Directory  
(c) Part Directory  
(d) Sub Directory  
(e) None of these
8. Which of the following is not a common feature of software applications?  
(a) Menus (b) Windows  
(c) Help (d) Search  
(e) None of these
9. A limitation of software that digitizes voice data is that it  
(a) is prohibitively expensive.  
(b) must be trained to recognize individual voices.  
(c) can only be used on high-end computers.  
(d) cannot be used on laptop computers.  
(e) cannot be used on desktop computers
10. Which type of software is distributed free but requires the users to pay some amount for further use?  
(a) freeware (b) shareware  
(c) rentalware (d) public-domain software  
(e) abandonware

**RESPONSE  
GRID**

- |    |                 |    |                 |    |                 |    |                 |     |                 |
|----|-----------------|----|-----------------|----|-----------------|----|-----------------|-----|-----------------|
| 1. | (a)(b)(c)(d)(e) | 2. | (a)(b)(c)(d)(e) | 3. | (a)(b)(c)(d)(e) | 4. | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6. | (a)(b)(c)(d)(e) | 7. | (a)(b)(c)(d)(e) | 8. | (a)(b)(c)(d)(e) | 9. | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |

11. If employees reside in different parts of the country and need to meet monthly, useful computer technology would be
- video-display software
  - video digitizing
  - video-conferencing
  - video scanning.
  - None of these
12. Which type of software is used in the design of products, structures, civil engineering, drawings and map?
- CAD programs
  - desktop programs
  - drawing programs
  - painting-programs
  - video/audio-programs
13. Software applies \_\_\_\_\_, also called algorithms, to process data.
- arithmetic
  - procedures
  - objects
  - rules
  - None of these
14. \_\_\_\_\_ makes it possible for shoppers to make purchases using their computers.
- E-word
  - E-commerce
  - E-spend
  - E-business
  - None of these
15. Application software is designed to accomplish \_\_\_\_\_.
- real-world tasks
  - computer-centric tasks
  - gaming tasks
  - operating-system tasks
  - None of these
16. Which is the best definition of a software package?
- An add-on for your computer such as additional memory
  - A set of computer programs used for a certain function such as word processing
  - A protection you can buy for a computer
  - The box, manual and license agreement that accompany commercial software.
17. What are the two examples of freeware?
- WinZip and Linux
  - Shareware and file sharing
  - Microsoft Word and the Google toolbar
  - Instant messaging and the Google toolbar
  - Microsoft Power Point and Microsoft Excel
18. A sales clerk at a checkout counter scanning a tag on an item rather than keying it into the system, is using \_\_\_\_\_.
- input automation
  - item data automation
  - scanning automation
  - source data automation
  - None of these
19. Unauthorised copying of software to be used for personal gain instead of for personal backups is called
- program thievery
  - data snatching
  - software piracy
  - program looting
  - data looting
20. Which of the following softwares allows the user to move from page to page on the Web by clicking on or selecting a hyperlink or by typing in the address of the destination page?
- Web browser
  - Web search engine
  - Web home page
  - Web service
  - None of these



**101 SPEED TEST**

**82**

**PROGRAMMING**

**Max. Marks : 20**

**No. of Qs. 20**

**Time : 20 min.**

**Date : ...../...../.....**

1. Which of the following is NOT a computer programming language?  
(a) C                      (b) C++                      (c) Java  
(d) COBOL                      (e) Microsoft
2. A compiler translates higher-level programs into a machine language program, which is called—  
(a) source code                      (b) object code  
(c) compiled code                      (d) beta code  
(e) None of these
3. A program that works like a calculator for keeping track of money and making budgets \_\_\_\_\_.  
(a) calculator                      (b) scholastic                      (c) keyboard  
(d) spreadsheet                      (e) None of these
4. \_\_\_\_\_ is the process of finding errors in software code.  
(a) Debugging                      (b) Compiling  
(c) Interpreting                      (d) Testing  
(e) None of these
5. A \_\_\_\_\_ contains specific rules and words that express the logical steps of an algorithm.  
(a) programming language  
(b) programming structure  
(c) syntax  
(d) logic chart  
(e) None of these
6. C, BASIC, COBOL, and Java are example of \_\_\_\_\_ languages.  
(a) low-level  
(b) computer  
(c) system programming  
(d) high-level  
(e) None of these
7. The human-readable version of a program is called \_\_\_\_\_.  
(a) source code  
(b) program code  
(c) human code  
(d) system code  
(e) None of these
8. The method of file organization in which data records in a file are arranged in a specified order according to a key field is known as the  
(a) Direct access method  
(b) Queuing method  
(c) Predetermined method  
(d) Sequential access method  
(e) None of these
9. Which of the following is a popular programming language for developing multimedia web pages, websites and web-based applications?  
(a) COBOL  
(b) Java  
(c) BASIC  
(d) Assembler  
(e) None of these
10. Compiling creates a(n) \_\_\_\_\_.  
(a) program specification  
(b) algorithm  
(c) executable program  
(d) subroutine  
(e) None of these

**RESPONSE  
GRID**

- |    |                 |    |                 |    |                 |    |                 |     |                 |
|----|-----------------|----|-----------------|----|-----------------|----|-----------------|-----|-----------------|
| 1. | (a)(b)(c)(d)(e) | 2. | (a)(b)(c)(d)(e) | 3. | (a)(b)(c)(d)(e) | 4. | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6. | (a)(b)(c)(d)(e) | 7. | (a)(b)(c)(d)(e) | 8. | (a)(b)(c)(d)(e) | 9. | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |

11. The \_\_\_\_\_ manual tells you how to use a software program.
- documentation
  - programming
  - technical
  - user
  - None of these
12. The simultaneous execution of two or more instructions is called
- sequential access
  - reduced instruction set computing
  - multiprocessing
  - disk mirroring
  - None of these
13. Multiprogramming systems:
- are easier to develop than single programming systems.
  - execute each job faster.
  - execute more jobs in the same time period.
  - use only one large mainframe computer.
  - None of these
14. Codes consisting of bars or lines of varying widths or lengths that are computer-readable are known as \_\_\_\_\_.
- a bar code
  - an ASCII code
  - a magnetic tape
  - a light pen
  - None of these
15. A \_\_\_\_\_ contains specific rules and words that express the logical steps of an algorithm.
- programming language
  - programming structure
  - syntax
  - logic chart
  - None of these
16. \_\_\_\_\_ is a set of keywords, symbols, and a system of rules for constructing statements by which humans can communicate the instructions to be executed by a computer.
- A computer program
  - A programming language
  - An assembler
  - Syntax
  - None of these
17. \_\_\_\_\_ is the process of finding errors in software code.
- Compiling
  - Assembling
  - Interpreting
  - Debugging
  - None of these
18. A program that converts a high-level language source file into a machine-language file is called a
- translator
  - assembler
  - compiler
  - linker
  - None of the above
19. Documentation of computer programs is important so that
- users can learn how to use the program
  - other programmers can know how to maintain the program
  - the programmer can see why the code is written that way while hunting for sources of error
  - All of the above
  - None of the above
20. A program that enables you to perform calculations involving rows and columns of numbers is called a \_\_\_\_\_.
- spreadsheet program
  - word processor
  - graphics package
  - window
  - None of the above

**RESPONSE  
GRID**

11. (a)(b)(c)(d)(e) 12. (a)(b)(c)(d)(e) 13. (a)(b)(c)(d)(e) 14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e)  
16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e)





101 SPEED TEST

83

INTERNET

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. Which of the following is a Web browser?  
 (a) Paint (b) Power Point  
 (c) Fire fox (d) Word  
 (e) All are Web browsers
2. The Internet allows you to \_\_\_\_\_.  
 (a) send electronic mail  
 (b) view Web pages  
 (c) connect to servers all around the world  
 (d) All of the above  
 (e) None of these
3. Junk e-mail is also called \_\_\_\_\_.  
 (a) spam (b) spoof  
 (c) sniffer script (d) spool  
 (e) None of these
4. What is an E-mail attachment?  
 (a) A receipt sent by the recipient  
 (b) A separate document from another program sent along with an E-mail message  
 (c) A malicious parasite that feeds off of your messages and destroys the contents  
 (d) A list of CC : or BCC : recipients  
 (e) None of these
5. Which of the following are all considered advantages of e-mail?  
 (a) Convenience, speed of delivery, generality and reliability  
 (b) Printable, global and expensive  
 (c) Global, convenience and Microsoft owned  
 (d) Slow delivery, reliable, global and inexpensive  
 (e) None of these
6. E-commerce allows companies to \_\_\_\_\_.  
 (a) issue important business reports  
 (b) conduct business over the Internet  
 (c) support decision making processes  
 (d) keep track of paper-based transactions  
 (e) None of these
7. Most World Wide Web pages contain commands in the language \_\_\_\_\_.  
 (a) NIH (b) URL (c) HTML  
 (d) IRC (e) FTP
8. Which is the slowest internet connection service?  
 (a) Digital Subscriber Line  
 (b) TI  
 (c) Cable modem  
 (d) Leased Line  
 (e) Dial-up Service
9. Computers connected to a LAN (local Area Network) can \_\_\_\_\_.  
 (a) run faster  
 (b) go on line  
 (c) share information and/or share peripheral equipment  
 (d) E-mail  
 (e) None of these
10. A Website address is a unique name that identifies a specific \_\_\_\_\_ on the web.  
 (a) Web browser (b) PDA (c) Website  
 (d) Link (e) None of these
11. What does a Web site address uniquely specify?  
 (a) Web browser (b) Web site (c) PDA  
 (d) Storage (e) Hard-disk
12. Web pages are saved in \_\_\_\_\_ format.  
 (a) http:// (b) HTML (c) DOC  
 (d) URL (e) None of these
13. What are the two parts of an E-mail address?  
 (a) User name and street address  
 (b) Legal name and phone number  
 (c) User name and domain name  
 (d) Initials and password  
 (e) login name and password

RESPONSE GRID

- |                     |                     |                     |                    |                     |
|---------------------|---------------------|---------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) |                    |                     |

14. The computer that hosts your e-mail account is known as a(n)
  - (a) Host
  - (b) E-mail client
  - (c) E-mail server
  - (d) Listserv
  - (e) None of these
15. Before you can begin using e-mail, you must have a(n)
  - (a) Browser
  - (b) Modem
  - (c) Server
  - (d) Scanner
  - (e) Account
16. Which of the following are tasks that may be completed when configuring your e-mail client?
  - (a) Provide the IP address of your ISP's mail server
  - (b) Provide the name for your e-mail account
  - (c) Specify that mail is to be deleted from the host computer after it is downloaded to your computer.
  - (d) All of these
  - (e) None of these
17. An educational institution would generally have the following in its domain name –
  - (a) .org
  - (b) .edu
  - (c) .inst
  - (d) .com
  - (e) .sch
18. Which of the following is not a term pertaining to the Internet?
  - (a) Keyboard
  - (b) Link
  - (c) Browser
  - (d) Search Engine
  - (e) Hyperlink
19. Which of the following is used by the browser to connect to the location of the Internet resources?
  - (a) Linkers
  - (b) Protocol
  - (c) Cable
  - (d) URL
  - (e) None of these
20. In a web site, the 'home' page refers to –
  - (a) the best page
  - (b) the last page
  - (c) the first page
  - (d) the most recent page
  - (e) the oldest page
21. An e-mail address typically consists of a user ID followed by the \_\_\_\_\_ sign and the name of the e-mail server that manages the user's electronic post office box.
  - (a) @
  - (b) #
  - (c) &
  - (d) ★
  - (e) None of these
22. A Web \_\_\_\_\_ consists of one or more Web pages located on a Web server.
  - (a) hub
  - (b) site
  - (c) story
  - (d) template
  - (e) None of these
23. Programs such as Internet Explorer that serve as navigable windows into the Web are called
  - (a) Hypertext
  - (b) Networks
  - (c) Internet
  - (d) Web browsers
  - (e) None of these
24. A word in a web page that, when clicked, opens another document.
  - (a) anchor
  - (b) URL
  - (c) hyperlink
  - (d) reference
  - (e) None of these
25. A modem
  - (a) translates analog signals from a computer into digital signals that can travel along conventional telephone lines.
  - (b) translates digital signals from a computer into analog signals that, can travel along conventional telephone lines.
  - (c) demodulates digital signals from a computer.
  - (d) modulates signals from an analog telephone line.
  - (e) None of these
26. If you are going to a site you use often, instead of having to type in the address every time, you should
  - (a) save it as a file
  - (b) make a copy of it
  - (c) bookmark it
  - (d) delete it
  - (e) None of the above
27. WWW stands for \_\_\_\_\_.
  - (a) World Work Web
  - (b) Wide Work Web
  - (c) Wide World Web
  - (d) World Wide Web
  - (e) None of the above.
28. A \_\_\_\_\_ is the term used when a search engine returns a Web page that matches the search criteria.
  - (a) blog
  - (b) hit
  - (c) link
  - (d) view
  - (e) success
29. The collection of links throughout the Internet creates an interconnected network called the \_\_\_\_\_.
  - (a) WWW
  - (b) Web
  - (c) World Wide Web
  - (d) All of the above
  - (e) Wide Area Web
30. The connection between your computer at home and your local ISP is called \_\_\_\_\_.
  - (a) the last mile
  - (b) the home stretch
  - (c) the home page
  - (d) the backbone
  - (e) the vital mile

**RESPONSE  
GRID**

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| 14. a b c d e | 15. a b c d e | 16. a b c d e | 17. a b c d e | 18. a b c d e |
| 19. a b c d e | 20. a b c d e | 21. a b c d e | 22. a b c d e | 23. a b c d e |
| 24. a b c d e | 25. a b c d e | 26. a b c d e | 27. a b c d e | 28. a b c d e |
| 29. a b c d e | 30. a b c d e |               |               |               |



101 SPEED TEST

84

SECTION TEST COMPUTER KNOWLEDGE

Max. Marks : 20

No. of Qs. 20

Time : 20 min.

Date : ...../...../.....

1. Where are you likely to find an embedded operating system?
  - (a) on a desktop operating system
  - (b) on a networked PC
  - (c) on a network server
  - (d) on a PDA
  - (e) on a mainframe
2. An online discussion group that allows direct "live" , communication is known as
  - (a) Webcrawler
  - (b) chat group
  - (c) regional service provider
  - (d) hyperlink
  - (e) e-mail
3. Which of the following is a program that uses a variety of different approaches to identify and eliminate spam?
  - (a) Directory search
  - (b) Anti-spam program
  - (c) Web server
  - (d) Web storefront creation package
  - (e) Virus
4. Connection or link to other documents or Web Pages that contain related information is called
  - (a) dial-up
  - (b) electronic commerce
  - (c) hyperlink
  - (d) e-cash
  - (e) domain name
5. Which of the following is a programming language for creating special programs like applets?
  - (a) Java
  - (b) cable
  - (c) domain name
  - (d) Net
  - (e) COBOL
6. The system unit
  - (a) coordinates input and output devices
  - (b) is the container that houses electronic components
  - (c) is a combination of hardware and software
  - (d) controls and manipulates data
  - (e) does the arithmetic operations
7. System software
  - (a) allows the user to diagnose and troubleshoot the device
  - (b) is a programming language
  - (c) is part of a productivity suite
  - (d) is an optional form of software
  - (e) helps the computer manage internal resources
8. Computer and communication technology, such as communication links to the Internet, that provide help and understanding to the end user is known as
  - (a) presentation file
  - (b) information technology
  - (c) program
  - (d) worksheet file
  - (e) FTP
9. Which of the following is contained on chips connected to the system board and is a holding area for data instructions and information? (processed data waiting to be output to secondary storage)
  - (a) program
  - (b) mouse
  - (c) Internet
  - (d) memory
  - (e) modem
10. Microsoft's Messenger allows users to
  - (a) bypass a browser to surf the Web
  - (b) create a blog
  - (c) communicate via direct live communication
  - (d) identify and eliminate spam
  - (e) make graphic presentations

RESPONSE  
GRID

- |    |                 |    |                 |    |                 |    |                 |     |                 |
|----|-----------------|----|-----------------|----|-----------------|----|-----------------|-----|-----------------|
| 1. | (a)(b)(c)(d)(e) | 2. | (a)(b)(c)(d)(e) | 3. | (a)(b)(c)(d)(e) | 4. | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6. | (a)(b)(c)(d)(e) | 7. | (a)(b)(c)(d)(e) | 8. | (a)(b)(c)(d)(e) | 9. | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |

11. Portable computer, also known as laptop computer, weighing between 4 and 10 pounds is called
- general-purpose application
  - Internet
  - scanner
  - printer
  - notebook computer
12. The main circuit-board of the system unit is the
- computer program
  - control unit
  - motherboard
  - RAM
  - None of these
13. In modems data transfer rate is measured in
- bandwidth
  - bits per second
  - bits per minute
  - All the above
  - None of these
14. A \_\_\_\_\_ code is used in retail stores to identify merchandise.
- mnemonics
  - gray code
  - machine code
  - universal product code
  - access-3 code
15. What is the short-cut key to highlight the entire column?
- Ctrl + Page up
  - Ctrl + Page down
  - Ctrl + Enter
  - Ctrl + Space bar
  - Ctrl + C
16. \_\_\_\_\_ can be use to send an e-mail to a large group at one time.
- Group
  - Alias
  - Mail server
  - List server
  - Remote server
17. To save the current document or to open a previously saved document, \_\_\_\_\_ is used.
- file menu
  - tools menu
  - view menu
  - edit
  - review menu
18. Documents of the web that are transported over the Internet are called
- web sites
  - web link
  - web pages
  - HTML pages
  - hypertext
19. To organise the bookmarks, \_\_\_\_\_ can be used.
- containers
  - folders
  - structure
  - menus
  - files
20. In a computer system, \_\_\_\_\_ device is functionally opposite of a keyboard.
- joystick
  - mouse
  - trackball
  - printer
  - scanner



**101 SPEED TEST**

85

**HISTORY AND NATIONALISATION OF BANKS**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Reserve Bank of India was established on  
(a) April 12, 1932 (b) April 1, 1935  
(c) May 2, 1943 (d) November 13, 1941  
(e) None of these
2. Reserve Bank of India was nationalised on  
(a) 21 May, 1948 (b) 13 July, 1951  
(c) 1 January, 1949 (d) 12 October, 1951  
(e) None of these
3. Six Commercial banks were nationalised by the Government on  
(a) April 15, 1980 (b) May 10, 1981  
(c) July 21, 1982 (d) May 13, 1984  
(e) None of these
4. The 14 major banks were nationalised by the Government on  
(a) June 19, 1967 (b) July 19, 1969  
(c) May 21, 1962 (d) May 12, 1963  
(e) None of these
5. Which of the following is the first commercial bank?  
(a) State Bank of India  
(b) Oudh Commercial Bank a  
(c) Union Bank of India  
(d) Indian Bank  
(e) None of these
6. State Bank of India was established on  
(a) May 2, 1951 (b) June 21, 1952  
(c) July 1, 1955 (d) August 12, 1956  
(e) None of these
7. NABARD (National Bank for Agriculture and Rural Development) was established in  
(a) 1979 (b) 1980 (c) 1981  
(d) 1982 (e) 1985
8. Regional Rural Banks were established on  
(a) July 3, 1970 (b) April 14, 1971  
(c) October 2, 1975 (d) November 23, 1978  
(e) None of these
9. Lead Bank system was started on the recommendations of  
(a) Raja Challaia Committee  
(b) Kelkar Committee  
(c) Nariman Committee  
(d) Malhotra Committee  
(e) None of these
10. Lead Bank system was started in  
(a) 1967 (b) 1968 (c) 1969  
(d) 1970 (e) 1972
11. Reserve Bank of India (RBI) follows the Minimum Reserves System in issuing currency since  
(a) 1950 (b) 1952 (c) 1954  
(d) 1956 (e) 1951
12. Reserve Bank of India started the system of ombudsman to resolve grievances of customers in  
(a) 1994 (b) 1995 (c) 1996  
(d) 1997 (e) 1998
13. The credit control methods adopted by the Reserve Bank are  
(a) Quantitative controls  
(b) Qualitative controls  
(c) Fixed controls  
(d) Both (a) and (b)  
(e) None of these
14. Which of the following Committees were appointed by the Government for restructuring the Regional Rural Development Banks?  
(a) Bhandar Committee (b) K.Basu Committee  
(c) Raj Committee (d) Both (a) and ((b)  
(e) None of these
15. The concept of 'Universal Banking' was implemented in India on the recommendations of:  
(a) Abid Hussain Committee  
(b) R H Khan Committee  
(c) S Padmanabhan Committee  
(d) Y H Malegam Committee  
(e) None of these

**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e)	2. (a)(b)(c)(d)(e)	3. (a)(b)(c)(d)(e)	4. (a)(b)(c)(d)(e)	5. (a)(b)(c)(d)(e)
6. (a)(b)(c)(d)(e)	7. (a)(b)(c)(d)(e)	8. (a)(b)(c)(d)(e)	9. (a)(b)(c)(d)(e)	10. (a)(b)(c)(d)(e)
11. (a)(b)(c)(d)(e)	12. (a)(b)(c)(d)(e)	13. (a)(b)(c)(d)(e)	14. (a)(b)(c)(d)(e)	15. (a)(b)(c)(d)(e)

16. Oudh Commercial Bank was established in  
 (a) 1878 (b) 1879 (c) 1880  
 (d) 1881 (e) None of these
17. Which of the following is the first Private bank established based on the recommendations of the Narasimhan Committee?  
 (a) UTI Bank Ltd. (b) Union Bank  
 (c) Bank of Baroda (d) Dena Bank  
 (e) None of these
18. In 1993, a Nationalized bank was merged with Punjab National Bank (PNB), what is the name of that Bank?  
 (a) Bank of Baroda (b) Global Trust Bank  
 (c) New Bank of India (d) Bank of India  
 (e) None of these
19. The biggest commercial bank in India is  
 (a) RBI (b) SBI  
 (c) IDBI (d) Exim Bank of India  
 (e) None of these
20. ICICI is a  
 (a) Financial Institution  
 (b) Rural Development Bank  
 (c) Cooperative Bank  
 (d) Space Research Institute  
 (e) None of these
21. Banking amendment bill reduced SBI holding in its seven subsidiary banks from  
 (a) 90% to 75%  
 (b) 85% to 50%  
 (c) 75% or more to 51%  
 (d) 65% or more to 49%  
 (e) None of these
22. When was paper currency first started in India?  
 (a) 1810 (b) 1715 (c) 1635  
 (d) 1542 (e) 1902
23. Consider the following statements.  
 (1) Scheduled Banks are those Banks which are included in the Second Scheduled of the Reserve Bank Act, 1934.  
 (2) There are 10 Non-Scheduled commercial Banks operating in the country.  
 (3) Co-operative banks are organized & managed on the principle of co-operation, self-help and mutual help.
- Which of the following are correct?  
 (a) 1 and 3 (b) only 2 (c) 2 and 3  
 (d) only 1 (e) All the above are correct.
24. Security printing press was established in 1982 at?  
 (a) Kolkata (b) New Delhi  
 (c) Bombay (d) Hyderabad  
 (e) Nasik
25. Six private sector banks were nationalised on April 15, 1980, whose reserves were more than?  
 (a) 100 Crores (b) 200 crores  
 (c) 300 crores (d) 400 crores  
 (e) 500 crores
26. Scheduled banks are those?  
 (a) Included in the 2nd schedule of the Banking Regulation Act-1949  
 (b) Included in the 2nd schedule of the Companies Act-1956  
 (c) Included in the 2nd schedule of the Reserve Bank of India Act-1934  
 (d) Bank Nationalization Act-1969  
 (e) None of these
27. When RBI has decided to circulate 'Plastic Currency Notes' in the market ?  
 (a) July 1, 1999 (b) July 1, 2010  
 (c) July 1, 2011 (d) Sept. 1, 2011  
 (e) None of these
28. When was adopted, New strategy for Rural Lending : Service Area Approach ?  
 (a) April 1, 1989 (b) March 1, 2007  
 (c) April 1, 2010 (d) April 1, 2011  
 (e) None of these
29. India Brand Equity Fund' was established in the year:  
 (a) 1992 (b) 1998 (c) 1995  
 (d) 1996 (e) 1997
30. Which was the first Indian Bank to introduce credit card?  
 (a) State Bank of India  
 (b) Central Bank of India  
 (c) Union Bank of India  
 (d) ICICI  
 (e) None of these

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 16. (a) (b) (c) (d) (e) | 17. (a) (b) (c) (d) (e) | 18. (a) (b) (c) (d) (e) | 19. (a) (b) (c) (d) (e) | 20. (a) (b) (c) (d) (e) |
| 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) | 23. (a) (b) (c) (d) (e) | 24. (a) (b) (c) (d) (e) | 25. (a) (b) (c) (d) (e) |
| 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) | 28. (a) (b) (c) (d) (e) | 29. (a) (b) (c) (d) (e) | 30. (a) (b) (c) (d) (e) |



**101 SPEED TEST**

86

**RBI AND ITS GUIDELINE**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. The 'Base rate system' which replaced BPLR in July 2010 on the recommendation of which committee?  
(a) Deepak Mohanti (b) Ketan Parikh (c) M. V. Nair  
(d) Basel committee (e) None of these
2. Regarding to the Banking supervision Basel III norms recommended by RBI in 2 May, 2012 came in effect by?  
(a) 1 Jan, 2013 (b) 1 March, 2013  
(c) 1 April, 2013 (d) 1 September 2013  
(e) None of these
3. The accounting year of RBI occurs between the months of ?  
(a) April – March (b) March – February  
(c) July – June (d) August – July  
(e) None of these
4. In which article RBI permitted to the co-operative Banks for special Account Supervision?  
(a) Art – 30 (b) Art – 31 (c) Art – 33  
(d) Art – 32 (e) None of these
5. Who is appointed the Governor of Reserve Bank of India recently?  
(a) Dr. D. Subbarao (b) Dr. Y. V. Reddy  
(c) Dr. Bimal Jalan (d) R. N. Malhotra  
(e) None of these
6. The documents related to the new monetary policy passed by the Governor of RBI on?  
(a) 1 May, 2013 (b) 2 May, 2013  
(c) 3 May, 2013 (d) 4 May, 2013  
(e) None of these
7. According to the new monetary policy the current Repo Rate decreased by?  
(a) 7.5% (b) 7.25 % (c) 7.75%  
(d) 7.0 % (e) None of these
8. The current Reserve Repo Rate stabilize on?  
(a) 6.0% (b) 6.25% (c) 6.5%  
(d) 6.75% (e) None of these
9. According to monetary policy 2013-14 the current Bank rate is?  
(a) 8.0% (b) 8.25% (c) 8.5%  
(d) 8.75% (e) None of these
10. The GDP growth rate considers by RBI during the year 2013-14?  
(a) 5.7% (b) 5% (c) 5.5%  
(d) 5.8% (e) None of these
11. Open market operations of RBI refers to?  
(a) buying and selling of shares  
(b) auctioning of foreign exchange  
(c) trading in securities  
(d) transactions in gold.  
(e) None of these
12. Monetary policy in India is formulated and implemented by?  
(a) Government of India  
(b) Reserve Bank of India  
(c) Indian Banks Association  
(d) FICCI  
(e) None of these
13. Reserve bank of India follows which system for the issue of currency?  
(a) Minimum Reserve System  
(b) Proportionate Reserve System  
(c) Both of the above  
(d) None of the above  
(e) None of these
14. Which of the following controls credit creation by the commercial Banks in India?  
(a) Ministry of Finance (b) Reserve Bank of India  
(c) Government of India (d) State Bank of India  
(e) None of these

**RESPONSE GRID**

- |            |                 |            |                 |            |                 |            |                 |            |                 |
|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| <b>1.</b>  | (a)(b)(c)(d)(e) | <b>2.</b>  | (a)(b)(c)(d)(e) | <b>3.</b>  | (a)(b)(c)(d)(e) | <b>4.</b>  | (a)(b)(c)(d)(e) | <b>5.</b>  | (a)(b)(c)(d)(e) |
| <b>6.</b>  | (a)(b)(c)(d)(e) | <b>7.</b>  | (a)(b)(c)(d)(e) | <b>8.</b>  | (a)(b)(c)(d)(e) | <b>9.</b>  | (a)(b)(c)(d)(e) | <b>10.</b> | (a)(b)(c)(d)(e) |
| <b>11.</b> | (a)(b)(c)(d)(e) | <b>12.</b> | (a)(b)(c)(d)(e) | <b>13.</b> | (a)(b)(c)(d)(e) | <b>14.</b> | (a)(b)(c)(d)(e) |            |                 |

15. Note issuing department of Reserve Bank of India should always pass the minimum gold stock worth ?  
 (a) ₹ 85 crore (b) ₹ 115 crore  
 (c) ₹ 200 crore (d) None of above  
 (e) None of these
16. In India which agency is entrusted with the collection of data of capital formation ?  
 (a) RBI and CSO (b) RBI and SBI  
 (c) RBI and Other Bank (d) CSO and NSSO  
 (e) None of these
17. The Bank rate is the rate at which ?  
 (a) a bank lends to the public  
 (b) the RBI lends to the public  
 (c) RBI gives credit to the Commercial Banks  
 (d) the Government of India lends to other countries.  
 (e) None of these
18. An increase in CRR by the Reserve Bank of India result in ?  
 (a) decrease in debt of the government  
 (b) reduction in liquidity in the economy  
 (c) attracting more FDI in the country  
 (d) more flow of credit to desired sectors  
 (e) None of these
19. Which of the following provides the largest credit to agriculture and allied sectors ?  
 (a) Co-operative Banks with RBI  
 (b) Regional Rural Banks  
 (c) Commercial Banks  
 (d) Co-operative and Regional Rural Banks  
 (e) None of these
20. Who implemented the 'Know Your Customer' (KYC) scheme for the identification of own customer/consumer?  
 (a) RBI (b) SBI (c) ICICI  
 (d) HDFC (e) None of these
21. Who is the custodian of India's Foreign Exchange Funds ?  
 (a) RBI (b) SBI  
 (c) Government of India (d) Central Bank  
 (e) None of these
22. Who published the financial report on currency and finance ?  
 (a) RBI (b) CSO (c) WTO  
 (d) NSSO (e) None of these
23. Which bank of Russia got permission to open a new branch first time in Delhi by RBI ?  
 (a) Indus Bank (b) Income Bank  
 (c) Gridlage Bank (d) None of these  
 (e) None of these
24. Which of the following authority sanctions foreign exchange for the import of goods ?  
 (a) Any Nationalised Bank  
 (b) Exchange Bank  
 (c) Reserve Bank of India  
 (d) Ministry of Finance  
 (e) None of these
25. How many posts of Deputy Governor in Reserve Bank of India ?  
 (a) 1 (b) 2 (c) 3  
 (d) 4 (e) None of these
26. According to the RBI Act, 1934 how much percentage of CRR could not be minimize ?  
 (a) 3% (b) 2% (c) 4%  
 (d) 5% (e) None of these
27. According to the new policy the SLR stabilized at the point ?  
 (a) 22.0% (b) 23.0% (c) 24.0%  
 (d) 25.0% (e) None of these
28. RBI had set up a committee to study and give suggestions on the micro-finance sector. Its chairman was ?  
 (a) Y.H. Malegam (b) Abid Hussain  
 (c) Bimal Jalan (d) Rakesh Mohan  
 (e) None of these
29. Which among the following institutions regulates the external commercial borrowings ?  
 (a) SEBI  
 (b) Ministry of Finance  
 (c) Ministry of Commerce  
 (d) Reserve Bank of India  
 (e) None of these
30. Which of the following statements is not correct ?  
 (a) RBI is the Central Bank of the country  
 (b) RBI is the Banker of the Central and the state Governments  
 (c) RBI is the custodian of the country's Foreign Exchange Reserve  
 (d) RBI was established in 1949.  
 (e) None of these

RESPONSE  
GRID

15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e)  
 20. (a)(b)(c)(d)(e) 21. (a)(b)(c)(d)(e) 22. (a)(b)(c)(d)(e) 23. (a)(b)(c)(d)(e) 24. (a)(b)(c)(d)(e)  
 25. (a)(b)(c)(d)(e) 26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e)  
 30. (a)(b)(c)(d)(e)





**101 SPEED TEST**

**87**

**BANKING PRODUCT AND SERVICES**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. **Mobicash Easy** is a mobile wallet which offers facilities such as fund transfer, bill payment, balance enquiry, mini statement, mobile top-ups and DTH recharge.  
This facility has been introduced by which of the following banks?  
(a) State Bank of India (b) HDFC Bank  
(c) Corporation Bank (d) Union Bank of India  
(e) ICICI Bank
2. The Asian development Bank (ADB) and Government of India have signed loan agreement to improve rural roads. In this context, which of the following statement is/are correct?  
1. The loan amount is the first tranche of ₹800 million financing facility.  
2. The project includes the construction of 3461 km of all-weather rural roads in 5 states.  
3. The first phase of the project will be completed in December, 2015  
(a) Only 1 (b) Only 3 (c) Both 1 & 3  
(d) Both 2 & 3 (e) All are correct
3. Insurance service provided by various banks is commonly known as ....  
(a) Investment Banking  
(b) Portfolio Management  
(c) Merchant Banking  
(d) Bancassurance  
(e) Micro Finance
4. Which bank of India has announced the launch of a home loan product named 'Happy Ending Home Loan', in which the last 12 months' equated monthly instalments (EMIs) will be waived if the borrower diligently services the loan?  
(a) ICICI Bank (b) HDFC Bank  
(c) Axis Bank (d) State Bank of India  
(e) Corporation Bank
5. Many times we see banks advertise - "Anywhere Banking: Anytime Banking". Which of the following products/facilities launched by banks make(s) it possible for the customers to avail banking services 24 × 7?  
(A) ATM  
(B) Internet Banking  
(C) Universal chequebook facility  
(a) Only (A) (b) Only (B)  
(c) Both (A) and (B) (d) Only (C)  
(e) All (A), (B) and (C)
6. The RBI is planning to introduce "Plastic Currency Notes". What is/are the benefits of "Plastic Notes"?  
(1) Long shelf life.  
(2) It will replace plastic money like Credit Cards which lead to fraud.  
(3) Printing of such notes would be cheaper.  
(a) Only 3 (b) Only 2  
(c) Only 1 (d) All 1, 2 and 3  
(e) None of these
7. Which of the following is not the part of the Scheduled Banking structure in India?  
(a) Money Lenders  
(b) Public Sector Banks  
(c) Private Sector Banks  
(d) Regional Rural Banks  
(e) State Cooperative Banks
8. Small Savings Scheme like national savings certificates, Public Provident Fund, Monthly Income Schemes are popular among the salaried people. Which financial institutions manage these schemes?  
(a) Public Sector Banks (b) Commercial Banks  
(c) Post Offices (d) Co-operative Banks  
(e) None of these

**RESPONSE  
GRID**

- |                    |                    |                    |                    |                    |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1. (a)(b)(c)(d)(e) | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e) |
| 6. (a)(b)(c)(d)(e) | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) |                    |                    |

9. Which of the following is/are the right(s) of customer towards his banker?
  - (a) To receive a statement of his account from a banker
  - (b) To sue the bank for any loss and damages
  - (c) To sue the banker for not maintaining the secrecy of his account
  - (d) All of the above
  - (e) None of these
10. Which of the following factors is not required to be considered to analyze the repayment capacity of a borrower?
  - (a) Working capital management
  - (b) Personal educational qualifications
  - (c) Financial leverage
  - (d) Interest rate risk management
  - (e) None of these
11. Which of the following is a facilitating service of core loan products of retail banking services?
  - (a) Current or savings accounts
  - (b) Legal services for documentation
  - (c) Delivery of loan at promised time period
  - (d) Flexibility in prepayment of loan
  - (e) None of these
12. Funded Services under corporate banking does not include?
  - (a) Working Capital Finance
  - (b) Bill Discounting
  - (c) Export Credit
  - (d) Letters of Credit
  - (e) None of these
13. "Swabhiman" Scheme is related-
  - (a) Rich Customers of the Bank
  - (b) RRBs
  - (c) To provide basic banking services to bankless villages
  - (d) Both (b) and (c)
  - (e) None of these
14. A centralized database with online connectivity to branches, internet as well as ATM-network which has been adopted by almost all major banks of our country is known as?
  - (a) Investment Banking
  - (b) Core Banking
  - (c) Mobile Banking
  - (d) National Banking
  - (e) Specialized Banking
15. The Reverse Mortgage scheme is launched to give benefit to which of the following groups of society?
  - (a) Persons below 60 yrs
  - (b) Senior Citizens
  - (c) Unemployed youth
  - (d) Orphans
  - (e) All of the above
16. Which of the following scheme is not meant for investment purposes?
  - (a) National saving certificate
  - (b) Infrastructure bonds
  - (c) Mutual funds
  - (d) Letter of credit
  - (e) None of these
17. Systematic investment Plans relates to:
  - (a) Mutual Funds
  - (b) Life Insurance Companies
  - (c) Commercial Banks
  - (d) Post office savings schemes
  - (e) None of these
18. Which of the following is an example of cash less purchase?
  - (a) Debit card
  - (b) Credit card
  - (c) ATM withdrawal
  - (d) All of the above
  - (e) None of these
19. Which one of the following is not an electronic banking delivery channel?
  - (a) Mobile Vans
  - (b) Mobile Phone Banking
  - (c) Internet Banking
  - (d) Tele Banking
  - (e) ATM
20. Now-a-days Banks are selling third party products. Example of third party product is:
  - (a) Mutual funds
  - (b) Term deposits
  - (c) Credit cards
  - (d) All of these
  - (e) None of these
21. What are White Label ATMs
  - (a) ATMs set up and run by non-banking entities
  - (b) ATMs set up and run by banking entities
  - (c) ATMs in rural areas
  - (d) ATMs in Defence areas
  - (e) ATM set up in Uttaranchal

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) | 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) |
| 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) | 16. (a)(b)(c)(d)(e) | 17. (a)(b)(c)(d)(e) | 18. (a)(b)(c)(d)(e) |
| 19. (a)(b)(c)(d)(e) | 20. (a)(b)(c)(d)(e) | 21. (a)(b)(c)(d)(e) |                     |                     |



**101 SPEED TEST**

88

**BANKING TERMS AND TERMINOLOGY**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. What is the full form of 'FINO', a term we see frequently in financial newspapers?
  - (a) Financial Investment Network and Operations
  - (b) Farmers' Investment in National Organisation
  - (c) Farmers Inclusion News and Operations
  - (d) Financial Inclusion Network and Operations
  - (e) None of these
2. What does the letter 'L' denote in the term 'LAF' as referred every now and then in relation to monetary policy of the RBI?
  - (a) Liquidity
  - (b) Liability
  - (c) Leveraged
  - (d) Longitudinal
  - (e) Linear
3. Which of the following terms is NOT a financial term?
  - (a) Investment
  - (b) El Nino effect
  - (c) Core banking Solution
  - (d) RTGS
  - (e) All are financial terms
4. The term 'Smart Money' refers to \_\_\_\_\_.
  - (a) Foreign Currency
  - (b) Internet Banking
  - (c) US Dollars
  - (d) Travelers' cheques
  - (e) Credit Cards
5. We often come across the term SWIFT in financial newspapers. What is the expanded form of this term?
  - (a) Society for Worldwide Interbank Financial Telecommunication
  - (b) Secure Worldwide Interbank Financial Telecommunication.
  - (c) Society for Worldwide Intra-bank Financial Transaction.
  - (d) Security for Worldwide Interbank Financial Transaction
  - (e) None of these
6. Many a time we read in financial newspapers about the performance of the "core sectors" in the economy. Which of the following is NOT included in the same?
  - (a) Coal
  - (b) Automobiles
  - (c) Steel
  - (d) Cement
  - (e) Oil & Petroleum
7. The Standing Committee on Finance headed by Yashwant Sinha has recommended that CSR should be mandatory for all the companies. CSR stands for
  - (a) Company Social Representation
  - (b) Company Service Responsibility
  - (c) Corporate Social Responsibility
  - (d) Corporate Security Responsibility
  - (e) None of these
8. In a bid to standardise and enhance the security features in cheque forms, it has now been made mandatory for banks to issue new format of cheques called
  - (a) CTS-2010
  - (b) CTS-2011
  - (c) CTS-2012
  - (d) CTS-2013
  - (e) None of these
9. The "Four Eyes" principle (mentioned by the Reserve Bank of India) refers to:
  - (a) Lenders
  - (b) Borrowers
  - (c) Wealth Managers
  - (d) Micro-Financiers
  - (e) None of these
10. NRE deposit is
  - (a) Non Resident External deposit
  - (b) Non Resident Extra deposit
  - (c) Non Resident Exchange deposit
  - (d) Non Refundable External deposit
  - (e) Non Resident Extended deposit
11. Which of the following is NOT a banking-related term?
  - (a) SME Finance
  - (b) Overdraft
  - (c) Drawing power
  - (d) Sanctioning Authority
  - (e) Equinox
12. What does the acronym LAF stand for?
  - (a) Liquidity Adjustment Fund
  - (b) Liquidity Adjustment Facility
  - (c) Liquidity Adjustment Finance
  - (d) Liquidity Adjustment Factor
  - (e) None of these
13. Which of the following terms is used in Banking Field?
  - (a) Interest rate swap
  - (b) Input devices
  - (c) Sedimentary
  - (d) Zero hour
  - (e) Privilege motion
14. What is "wholesale banking"?
  - (a) It is a bank-to-bank or B2B dealing.
  - (b) It is a bank-to-customer dealing.
  - (c) It is a bank-to-trustworthy customer dealing.
  - (d) It is a bank-to-government dealing
  - (e) None of these

**RESPONSE GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. Trade between India and China is in a state of "Payment imbalance". What does this mean in real terms?  
 (1) China imports less from India but India imports more from China.  
 (2) China delays payments to exporters.  
 (3) India wants payments in US Dollars but wants to pay in Yuan.  
 (a) Only 1 (b) Only 2 (c) Only 3  
 (d) All 1, 2 and 3 (e) None of these
16. Banks are promoting "Branch less Banking" which means?  
 (1) Banks will not reduce number of branches. Number of branches will be restricted and will concentrate on specified core business.  
 (2) Banks will launch/operate multiple delivery channels like ATMs, Mobile Banking/Internet Banking etc making visit to a branch unnecessary.  
 (3) Banks will issue only debit or credit cards for daily financial transactions. Cheques/Cash payment will not be allowed.  
 (a) Only 1 (b) Only 2  
 (c) Only 1 and 2 (d) Only 2 and 3  
 (e) All 1, 2 and 3
17. NBFCs are an important part of the Indian financial system. What is the full form of this term?  
 (a) New Banking Financial Companies  
 (b) Non-Banking Financial Companies  
 (c) Neo Banking Financial Confederation  
 (d) Non-Banking Fiscal Companies  
 (e) All of these
18. BCSBI stands for  
 (a) Banking Codes and Standards Board of India  
 (b) Banking Credit and Standards Board of India  
 (c) Banking Codes and Service Board of India.  
 (d) Banking Credit and Service Board of India.  
 (e) None of these
19. What does the term 'bancassurance' mean ?  
 (a) Assurance from the bank to its account holder regarding safety of his money  
 (b) A special product designed by the bank  
 (c) Selling of insurance policies by banks  
 (d) Understanding between banks and insurance companies  
 (e) None of these
20. SEZ stands for:  
 (a) Southern Economic Zone  
 (b) South European zone  
 (c) Special Economic Zone  
 (d) Special Eastern Zone  
 (e) None of these
21. The abbreviation IRDA stands for:  
 (a) Industrial Research and Development Authority of India  
 (b) Insurance Research and Development Authority of India  
 (c) Insurance Regulation Development Authority of India  
 (d) Industrial Research and Demands Agency  
 (e) None of these
22. Hard Currency is defined as currency :  
 (a) which can hardly be used for international transactions  
 (b) which is used in times of war  
 (c) which loses its value very fast  
 (d) traded in foreign exchange market for which demand is persistently relative to the supply  
 (e) None of these
23. The terms "bull" and "bear" are used in the :  
 (a) Bihar Government's Animal Husbandry Department  
 (b) Income Tax Department  
 (c) CBI  
 (d) Stock Exchange  
 (e) None of these
24. We read a term 'ECB' in the financial newspapers. What is the full form of ECB?  
 (a) Essential Credit and Borrowing  
 (b) Essential Commercial Borrowing  
 (c) External Credit and Business  
 (d) External Commercial Borrowing  
 (e) None of these
25. Green Banking means  
 (a) financing of irrigation projects by banks  
 (b) development of forestry by banks  
 (c) financing of environment friendly projects by banks  
 (d) development of Railway by banks.  
 (e) None of these
26. DTAA stands for  
 (a) Direct Tariff Avoidance Agreement  
 (b) Double Taxation Avoidance Agreement  
 (c) Direct Taxation Avoidance Agreement  
 (d) Double Tariff Avoidance Agreement  
 (e) None of these
27. The rate at which the Reserve Bank of India lends to the commercial banks in very short term against the backing of the Government securities is known as?  
 (a) Bank rate (b) Repo rate  
 (c) Reverse Repo (d) Discount rate  
 (e) None of these
28. A letter of credit (L/C) wherein the credit available to the customer gets reinstated after the bill is paid is known as?  
 (a) Back to back LC (b) Red clause LC  
 (c) Back to front LC (d) Revolving LC  
 (e) None of these
29. Which of the following is not an imperfect note?  
 (a) Washed note (b) Bleached note  
 (c) Mutilated note (d) Oiled note  
 (e) None of these
30. Which of the following is not shown as an asset in the balance sheet of a Bank?  
 (a) Investment (b) Advances  
 (c) Cash Balances with other banks  
 (d) Borrowings  
 (e) None of these

**RESPONSE  
GRID**

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 16. (a) (b) (c) (d) (e) | 16. (a) (b) (c) (d) (e) | 17. (a) (b) (c) (d) (e) | 18. (a) (b) (c) (d) (e) | 19. (a) (b) (c) (d) (e) |
| 20. (a) (b) (c) (d) (e) | 21. (a) (b) (c) (d) (e) | 22. (a) (b) (c) (d) (e) | 23. (a) (b) (c) (d) (e) | 24. (a) (b) (c) (d) (e) |
| 25. (a) (b) (c) (d) (e) | 26. (a) (b) (c) (d) (e) | 27. (a) (b) (c) (d) (e) | 28. (a) (b) (c) (d) (e) | 29. (a) (b) (c) (d) (e) |
| 30. (a) (b) (c) (d) (e) |                         |                         |                         |                         |



101 SPEED TEST

89

## GENERAL ECONOMICS

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. Which sector of Indian economy contributes longest to Gross National Product ?  
(a) Primary sector (b) Secondary sector  
(c) Tertiary sector (d) Public sector  
(e) None of these
2. The main source of National Income in India is-  
(a) Service sector (b) Agriculture  
(c) Industrial sector (d) Trade sector  
(e) None of these
3. Which one of the following is not a tax levied by the government of India ?  
(a) Service tax (b) Education  
(c) Custom duty (d) Toll tax  
(e) None of these
4. The most appropriate measure of a country's economic growth is its-  
(a) Gross Domestic Product (GDP)  
(b) Net Domestic Product (NDP)  
(c) Net National Product (NNP)  
(d) Per Capita Product (PCP)  
(e) None of these
5. FEMA (Foreign Exchange Management (Act) was finally implemented in the year  
(a) 1991 (b) 1997 (c) 2002  
(d) 2007 (e) None of these
6. The most common measure of estimating inflation in India is-  
(a) Price Index  
(b) Wholesale Price Index  
(c) Consumer Price Index  
(d) Price Index of Industrial Goods  
(e) None of these
7. The largest share of Gross Domestic Product (GDP) in India comes from-  
(a) Agriculture and allied sectors  
(b) Manufacturing sectors  
(c) Service sector  
(d) Defence and Public Administration  
(e) None of these
8. The policy of liberalisation, privatisation and globalisation was announced as new economic policy by prime minister-  
(a) Vishwanath Pratap Singh  
(b) Rajeev Gandhi  
(c) Narsimha Rao  
(d) Atal Bihari Vajpayee  
(e) None of these
9. The National Income of India is estimated by-  
(a) National Sample Survey Organization  
(b) Ministry of Finance  
(c) Reserve Bank of India  
(d) Central Statistical Organization  
(e) None of these
10. Which of the following states has the largest no. of approved as well as operational special Economic zones as on June 2012?  
(a) Uttar Pradesh (b) Andhra Pradesh  
(c) Tamil Nadu (d) Maharashtra  
(e) None of these
11. Which of the following constitutes the single largest export item from India ?  
(a) Gems and Jewellery  
(b) Readymade garments  
(c) Leather and footwear  
(d) Chemicals  
(e) None of these

**RESPONSE  
GRID**

1. (a)(b)(c)(d)(e)    2. (a)(b)(c)(d)(e)    3. (a)(b)(c)(d)(e)    4. (a)(b)(c)(d)(e)    5. (a)(b)(c)(d)(e)  
6. (a)(b)(c)(d)(e)    7. (a)(b)(c)(d)(e)    8. (a)(b)(c)(d)(e)    9. (a)(b)(c)(d)(e)    10. (a)(b)(c)(d)(e)  
11. (a)(b)(c)(d)(e)

12. In India, which one among the following formulates the fiscal policy?  
 (a) Planning Commission  
 (b) Finance Commission  
 (c) Finance Ministry  
 (d) Reserve Bank of India  
 (e) None of these
13. In which of the following financial years the devaluation of rupee in India took place twice ?  
 (a) 1966-67 (b) 1991-92 (c) 1990-91  
 (d) 1989-90 (e) None of these
14. VAT is imposed-  
 (a) On first stage of production  
 (b) Directly on consumer  
 (c) On all stages between production and final sale  
 (d) On final stage of production  
 (e) None of these
15. Term Balance of payment is used in relation to which of the following ?  
 (a) Annual sale of a factory  
 (b) Tax collection  
 (c) Exports and imports  
 (d) None of the above  
 (e) None of these
16. The Indian economy can be described as  
 (a) a backward and stagnant economy  
 (b) a developing economy  
 (c) an underdeveloped economy  
 (d) a developed economy  
 (e) None of these
17. The period of 12th Five Year Plan is  
 (a) 2007-12 (b) 2012-17 (c) 2008-13  
 (d) 2011-16 (e) None of these
18. The period of recommendations made by Thirteenth Finance Commission is  
 (a) 2009-14 (b) 2010-15 (c) 2007-12  
 (d) 2006-11 (e) None of these
19. The multi dimensional poverty index of UNDP includes  
 (a) 8 indicators (b) 10 indicators  
 (c) 12 indicators (d) 14 indicators  
 (e) None of these
20. Which of the following is responsible for the preparation and publication of "Economic Survey"?  
 (a) Planning Commission  
 (b) NSSO  
 (c) Ministry of Finance  
 (d) RBI  
 (e) None of these
21. Who is the chairman of the 14th Finance Commission of India ?  
 (a) Indira Rajaraman (b) Y.V.Reddy  
 (c) Vijay Kelkar (d) C. Rangrajan  
 (e) None of these
22. During the year 2012-13, in the ratio of GDP the Fiscal Deficit is expected ?  
 (a) 5.0% (b) 5.7% (c) 5.1%  
 (d) 5.5% (e) None of these
23. During the year 2012-13, in the percentage of GDP the Revenue Deficit expected ?  
 (a) 4.3% (b) 3.0% (c) 3.5%  
 (d) 3.1% (e) None of these
24. During the year 2012-13, in the percentage of GDP the primary deficit expected?  
 (a) 1.8% (b) 1.9% (c) 1.5%  
 (d) 2.0% (e) None of these
25. During the year 2012-13, in the percentage of GDP the share of Direct tax expected ?  
 (a) 5.0% (b) 5.1% (c) 5.6%  
 (d) 5.5% (e) None of these
26. During the year 2012-13, in the percentage of GDP the share of Indirect tax expected ?  
 (a) 5.0% (b) 5.2% (c) 5.5%  
 (d) 5.6% (e) None of these
27. The total no. of commodities included in service tax premises are ?  
 (a) 117 (b) 118 (c) 119  
 (d) 120 (e) None of these
28. During the year 2012-13, in terms of percentage of GDP the share of service tax ?  
 (a) 10% (b) 11% (c) 12%  
 (d) 13% (e) None of these
29. The new W.P.I. series was introduced on ?  
 (a) 1 April, 2010 (b) 1 July, 2010  
 (c) 15 August, 2010 (d) 14 September, 2010  
 (e) None of these
30. How many deputy members in the Finance Commission ?  
 (a) 1 (b) 2  
 (c) 3 (d) 4  
 (e) None of these

**RESPONSE  
GRID**

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| 12. a b c d e | 13. a b c d e | 14. a b c d e | 15. a b c d e | 16. a b c d e |
| 17. a b c d e | 18. a b c d e | 19. a b c d e | 20. a b c d e | 21. a b c d e |
| 22. a b c d e | 23. a b c d e | 24. a b c d e | 25. a b c d e | 26. a b c d e |
| 27. a b c d e | 28. a b c d e | 29. a b c d e | 30. a b c d e |               |



## FOREIGN TRADE

### 101 SPEED TEST

# 90

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. During the first half of 2012-13 India's exports dipped by 6.79% to ?  
 (a) \$ 132.6 billion (b) \$ 139.3 billion  
 (c) \$ 143.6 billion (d) \$ 149.3 billion  
 (e) None of these
2. During the period April.-Sept. 2012, country's trade deficit has moved from \$ 89.39 billion (Apr.-Sept 2011) to-  
 (a) \$ 85.67 billion (b) \$ 87.82 billion  
 (c) \$ 89.25 billion (d) \$ 90.89 billion  
 (e) None of these
3. India's rank in Global Hunger Index 2013 stands at ?  
 (a) 65th (b) 66th (c) 67th  
 (d) 68th (e) None of these
4. As per RBI's report at the end - March 2012 for share of long-run debt in India's total foreign debt stood at?  
 (a) 24% (b) 51% (c) 63%  
 (d) 77% (e) None of these
5. At the end-March 2013, India's foreign debt GDP ratio stood for ?  
 (a) 10% (b) 20% (c) 30%  
 (d) 40% (e) None of these
6. Which of the following sectors registers the lowest growth during year of 2012-13 ?  
 (a) Agriculture  
 (b) Industry  
 (c) Service  
 (d) All sectors shows equal growth  
 (e) None of these
7. Asian Development Bank (ADB) has lowered India's GDP growth forecast for 2012-13 from 7% to ?  
 (a) 6.5% (b) 6.0% (c) 5.6%  
 (d) 5.3% (e) None of these
8. Govt. has cleared the proposal of FDI in multi-brand retail and aviation sector up to ?  
 (a) 51% in both (b) 41% and 51%  
 (c) 49% and 51% (d) 51% and 49%  
 (e) None of these
9. The new EXIM policy announced in 1992, is for a period of?  
 (a) 3 years (b) 4 years (c) 7 years  
 (d) 5 years (e) None of these
10. The commodities are exported to India by arid and semi-arid countries in the Middle East ?  
 (a) Raw wool and carpets  
 (b) Fruits and palm oil  
 (c) Stones and pearls  
 (d) Perfume and coffee  
 (e) None of these
11. The accounting year of the Reserve Bank of India is ?  
 (a) April-March (b) July-June (c) Oct.-Sept.  
 (d) Jan-Dec. (e) None of these
12. Which one of the following countries has replaced Italy as the importer of bauxite from India ?  
 (a) Canada (b) Greece (c) Ukraine  
 (d) UAE (e) None of these
13. 'Eco mark' is given to the Indian products that are ?  
 (a) pure and unadulterated  
 (b) rich in proteins  
 (c) Environment Friendly  
 (d) Economically viable  
 (e) None of these
14. The earlier name of WTO was ?  
 (a) UNCTAD (b) GATT (c) UNIDO  
 (d) OECD (e) None of these

### RESPONSE GRID

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. 'World Development Report' is an annual publication of ?  
 (a) UNDP (b) IBRD (c) WTO  
 (d) IMF (e) None of these
16. India has the maximum volume of foreign trade with ?  
 (a) USA (b) Japan (c) Germany  
 (d) UAE (e) None of these
17. In the last one decade, which one among the following sectors has attracted the highest FDI inflows into India ?  
 (a) Chemicals (b) Services sector  
 (c) Food processing (d) Telecommunication  
 (e) None of these
18. Participatory notes (PNs) are associated with which one of the followings ?  
 (a) Consolidated food  
 (b) Foreign Institutional Investors  
 (c) UNDP  
 (d) Kyoto protocol  
 (e) None of these
19. What is the purpose of India Brand-Equity Fund ?  
 (a) To promote in bound tourism  
 (b) To make 'Made in India' a label of quality  
 (c) To organise trade fairs  
 (d) To provide venture capitals to IT sector  
 (e) None of these
20. A trade policy consists of :  
 (a) Export-Import policy  
 (b) Licencing policy  
 (c) Dumping  
 (d) Double pricing  
 (e) None of these
21. FERA in India has been replaced by ?  
 (a) FEPA (b) FEMA (c) FENA  
 (d) FETA (e) None of these
22. TRIPS and TRIMS are the term associated with ?  
 (a) IMF (b) WTO (c) IBRD  
 (d) IDA (e) None of these
23. SEZ act was passed by the parliament in the year ?  
 (a) 2004 (b) 2005 (c) 2006  
 (d) 2007 (e) None of these
24. Which is known as the 3rd pillar in international economics relations ?  
 (a) IMF (b) World Bank (c) WTO  
 (d) GATT (e) None of these
25. Which of the followings given countries are the new members of WTO ?  
 (a) Tajikistan and Laos  
 (b) Russia and Vanauto  
 (c) Combodia and Myanmar  
 (d) Kenya and Burundi  
 (e) None of these
26. How many members recently in WTO ?  
 (a) 158 (b) 159 (c) 160  
 (d) 161 (e) None of these
27. During the year 2011-12 which one of the state on the top position in the export in India ?  
 (a) Maharashtra (b) Karnataka  
 (c) Madhya Pradesh (d) Chhattisgarh  
 (e) None of these
28. In the year 2011 in terms of goods export which continent has the highest growth rate ?  
 (a) Africa (b) America (c) Europe  
 (d) Asia (e) None of these
29. During the year 2012-13 which of the following has maximum share in import of India ?  
 (a) Crude-oil (b) Electronics goods  
 (c) Machinery (d) Pharmaceuticals  
 (e) None of these
30. What is the share of India in total foreign exports of goods in 2012 ?  
 (a) 1.50% (b) 1.60% (c) 1.75%  
 (d) 1.80% (e) None of these

**RESPONSE  
GRID**

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| 15. a b c d e | 16. a b c d e | 17. a b c d e | 18. a b c d e | 19. a b c d e |
| 20. a b c d e | 21. a b c d e | 22. a b c d e | 23. a b c d e | 24. a b c d e |
| 25. a b c d e | 26. a b c d e | 27. a b c d e | 28. a b c d e | 29. a b c d e |
| 30. a b c d e |               |               |               |               |





101 SPEED TEST

91

## SCIENCE AND TECHNOLOGY

Max. Marks : 30

No. of Qs. 30

Time : 20 min.

Date : ...../...../.....

1. Government of India plans to launch which Mobile Scheme under which one member of every rural household can get free mobile device
  - (a) Gramin Bharat
  - (b) Bharat Mobile
  - (c) Gramin Mobile
  - (d) Connect
  - (e) None of these
2. Name The Chinese supercomputer which is declared is the fastest computer of the world-
  - (a) Tianhe-2
  - (b) Chinhane 1
  - (c) Kisova
  - (d) Techo-1
  - (e) None of these
3. Name the organization that have developed & demonstrated The first hydrogen fuel-fitted bus of India on 28 July 2013.
  - (a) Tata Motors
  - (b) ISRO
  - (c) ISRO & Tata Motors
  - (d) Mahindra & ISRO
  - (e) Mahindra only
4. NASA Pluto Mission, the New Horizons spotted the largest moon of Pluto, Name the moon
  - (a) Charon
  - (b) Fesso
  - (c) Pleety
  - (d) Sirius
  - (e) None of these
5. Name the organization that launched a series of satellites which is supposed to provide fast, cheap Internet and phone service to remote rural areas in 180 countries.
  - (a) A2B Networks
  - (b) R2R Networks
  - (c) O3B Networks
  - (d) M2M Networks
  - (e) B2B Networks
6. Name the place in india where Early Tsunami Warning System have been installed
  - (a) Rangachang
  - (b) Kanyakumari
  - (c) Chilka
  - (d) Mysore
  - (e) Ootkamandalam
7. The satellite launched by NASA to uncover the secrets of the Sun's lower atmosphere
  - (a) Interface Regional Imaging Spectgraph
  - (b) Interface Region Imaging Spectrograph (IRIS)
  - (c) Regional Imaging Spectgraph
  - (d) International Regional Imaging Spectgraph
  - (e) Pegasus
8. Researchers have developed Eco-friendly batteries which can be used in power plants or to store solar energy. These batteries are made up using which material
  - (a) Carbon, Tin, Sodium
  - (b) Wood, Tin, Carbon
  - (c) Wood, Tin and Sodium
  - (d) Sodium, carbon, Tin
  - (e) Nickel, Carbon, Zinc
9. Name The campaign launched by Google recently
  - (a) Search India
  - (b) Start Searching India
  - (c) People finder
  - (d) Searching India
  - (e) None of these
10. Which among the following is an application developed by Military Engineers which will pinpoint the location of friendly mines.
  - (a) Mine Field
  - (b) Track Mine field
  - (c) Mine field tracker
  - (d) Smart Mine Field
  - (e) None of the these
11. Which among the following are associated with Citrus greening, a deadly disease of citrus fruits
  - (a) It is caused by bacteria
  - (b) Premature defoliation
  - (c) Infected fruits are small and bitter in taste
  - (d) (a) and (c) only
  - (e) All (a), (b) and (c)
12. An MoU is signed b/w the Directorate General of Foreign Trade (DGFT) and Commissioner (Trade and Taxes) and Government of NCT of Delhi for making use of electronic Bank Realization Certificate (e-BRC). Which among the following are associated to Ebrc
  - (a) e-BRC is electronic form of earlier physical Bank Realization Certificate
  - (b) reduce transaction cost to exporters
  - (c) issued by a bank after realization of export proceeds
  - (d) required for claiming benefits under various Foreign Trade Policy schemes
  - (e) all of the above
13. Television viewership will now be measured on absolute numbers with TRPs giving way to which of the following?
  - (a) TMP
  - (b) TVT
  - (c) TMT
  - (d) TAM
  - (e) TRS

**RESPONSE  
GRID**

- |                     |                     |                     |                    |                     |
|---------------------|---------------------|---------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) |                    |                     |

14. President Pranab Mukherjee launched a Portal for sending SMS through mobile phones to the farmers across the nation. Name the portal  
 (a) Hariyali Portal (b) Bharat portal  
 (c) Portal Gram (d) Kisaan Portal  
 (e) Rural Connect
15. Kudankulam Nuclear Power Plant has been in news for its opposition by many activists. In which state is the plant located  
 (a) Tamil Nadu (b) Kerala  
 (c) Andhra Pradesh (d) Karnataka  
 (e) Orissa
16. The Election Commission (EC) is looking on the option of deploying Electronic Voting Machines (EVMs) with method of providing feedback to voters using a ballotless voting system. What is the the method ?  
 (a) Verified paper Record  
 (b) Voter audit trail  
 (c) Voter Verifiable Paper Audit Trail (VVPAT)  
 (d) Both (a) and (c)  
 (e) Only c
17. Name the broadband and telecommunications provider which launched world's first Firefox OS smartphone?  
 (a) Telefonica (b) Apple (c) Samsung  
 (d) Telenor (e) None of these
18. The First Navigation Satellite launched by ISRO  
 (a) PSLVC2 (b) IRNSS-1A (c) ISS-1A  
 (d) INSAT (e) Edusat
19. Name the World's first talking robot-astronaut that can communicate with humans  
 (a) Shimono (b) Kushovo (c) Kirobo  
 (d) Hashimono (e) Takeshi
20. The technology of mass housing developed by IIT Madras  
 (a) Glass Fibre Reinforced sand (GFRS)  
 (b) Glass Fibre Technology( GFT)  
 (c) Glass Fibre Reinforced Gypsum (GFRG)  
 (d) Strengthened Glass Fibre Technology (SGFT)  
 (e) None of these
21. The Rotavirus vaccine ROTOVAC developed by Indian scientists cures which disease?  
 (a) Diarrhoea (b) Cancer (c) Diabetes  
 (d) Arthritis (e) Pneumonia
22. Experts in recent International Conference on Tropical Roots and Tubers highlight potential of which crop as biofuel crop?  
 (a) Sugarcane (b) Sugarbeet (c) Cassava  
 (d) Guava (e) None of these
23. India's first DNA Forensic Laboratory is established in which city  
 (a) Gurgaon (b) Mumbai (c) Delhi  
 (d) Kanpur (e) Bangalore
24. E-surveillance using high definition cameras is planned for which animal's habitat  
 (a) Rhinoceros (b) Tiger (c) Elephant  
 (d) Lions (e) Cheetal
25. The new Maglev Bullet Train belongs to which country  
 (a) Korea (b) China (c) Japan  
 (d) Indonesia (e) Malaysia
26. Which among the following is the commercial satellite put by China into its orbit  
 (a) Zoongxing-12 (b) Zhongxing-11  
 (c) Xangching11 (d) Xangching12  
 (e) Sichuan12
27. "A Boy and His Atom" - World's smallest movie made with one of the smallest particles of any element in the universe: atoms is developed by which organization  
 (a) Microsoft (b) Infosys (c) IBM  
 (d) Toshiba (e) Sony
28. Name the Bee-size Robot developed by Harvard University  
 (a) RoboBee (b) Bee Robo (c) Little tiny  
 (d) Tinybee (e) None of these
29. Which among the following is the First cruise missile test fired by India?  
 (a) Aakash (b) Nirbhay (c) Agni-3  
 (d) Aakash-2 (e) Prithvi-3
30. The union Government has given the approval for the setting up of an autonomous defence university that is expected to provide inputs to strategic policy making. This university will come up in?  
 (a) Gurgaon (Haryana)  
 (b) Ghaziabad (Uttar Pradesh)  
 (c) New Delhi  
 (d) Lucknow (Uttar Pradesh)  
 (e) New Delhi

**RESPONSE  
GRID**

14. (a)(b)(c)(d)(e) 15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e)  
 19. (a)(b)(c)(d)(e) 20. (a)(b)(c)(d)(e) 21. (a)(b)(c)(d)(e) 22. (a)(b)(c)(d)(e) 23. (a)(b)(c)(d)(e)  
 24. (a)(b)(c)(d)(e) 25. (a)(b)(c)(d)(e) 26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e)  
 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)



**101 SPEED TEST**

**92**

**EVENTS/ORGANISATION/SUMMIT**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Which of the following countries is not a member of ASEAN?  
(a) Thailand (b) Vietnam (c) Myanmar  
(d) Brazil (e) None of these
2. Project 'Sankalp' is associated with the eradication of -  
(a) Polio (b) HIV/AIDS (c) Illiteracy  
(d) Tuberculosis (e) None of these
3. The World Environment Day is celebrated on which of the following days ?  
(a) Oct. 5 (b) August 5 (c) July 5  
(d) June 5 (e) None of these
4. The third ministerial level SAARC summit held in the country-  
(a) India (b) Nepal (c) Dhaka  
(d) Laos (e) None of these
5. The 22nd summit of ASEAN organised in-  
(a) UAE (b) Brunei (c) Moscow  
(d) Beijing (e) None of these
6. BRICS summit held in the country-  
(a) Brazil (b) Russia (c) S. Africa  
(d) China (e) None of these
7. In which country the 43rd annual meeting of WEF organised ?  
(a) Switzerland (b) France (c) Germany  
(d) USA (e) None of these
8. How many members in the APEC nations organisation ?  
(a) 20 (b) 21 (c) 22  
(d) 23 (e) None of these
9. The 16th NAM summit held in the country-  
(a) Tehran (Iran) (b) Kahira (Egypt)  
(c) N. Delhi (India) (d) Doha (Qatar)  
(e) None of these
10. In which country the G-20 summit organised ?  
(a) Mexico (b) South Korea  
(c) Japan (d) USA  
(e) None of these
11. The 38th summit of G-8 was held in \_\_\_\_\_ .  
(a) USA (b) UK (c) Canada  
(d) France (e) None of these
12. Which of the following countries became the new members of NAM ?  
(a) Azerbaijan and Fiji  
(b) Syria and Comoras  
(c) Surinam and Guyana  
(d) Columbia and Cyprus  
(e) None of these
13. The 25th NATO summit organised in which country recently ?  
(a) Russia (b) USA (c) Canada  
(d) France (e) None of these
14. Recently in which country first woman elected as a president ?  
(a) North Korea (b) South Korea (c) Japan  
(d) China (e) None of these
15. Who is elected as a new pope of Roman Catholic Church recently ?  
(a) Mario Bergoglio (b) George Allensary  
(c) Telesfor Toppo (d) Ivan Dias  
(e) None of these
16. The new organisation named "UN-women" created by united nations came into existence on ?  
(a) 1 July 2010 (b) 1 July 2011  
(c) 1 July 2012 (d) 1 July 2013  
(e) None of these

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) | 15. (a)(b)(c)(d)(e) |
| 16. (a)(b)(c)(d)(e) |                     |                     |                     |                     |

17. How many points are mentioned to the achievement of Millionium Development Goal LMDG-2015 of UN?  
 (a) 6 (b) 7 (c) 8  
 (d) 9 (e) None of these
18. Where is the headquarter of F.A.O. ?  
 (a) Italy (b) Paris (c) Jeneva  
 (d) Moscow (e) None of these
19. When the integrated monetary system 'Euro' accepted by the European Union ?  
 (a) 2002 (b) 2003 (c) 2004  
 (d) 2005 (e) None of these
20. How many members are associated with BIMSTEC ?  
 (a) 7 (b) 8 (c) 9  
 (d) 10 (e) None of these
21. In which city of India the Indian Ocean Rim-Association for Regional Cooperation (IOR-ARC) summit held ?  
 (a) N. Delhi (b) Chennai (c) Gurgaon  
 (d) Patna (e) None of these
22. (SAMPRITI-III), a special security forces exercise organised between the countries of -  
 (a) India-Sri Lanka (b) India-Bangladesh  
 (c) India-Russia (d) India-USA  
 (e) None of these
23. The Cabinet Ministry of India approved National Skill Development Agency on ?  
 (a) 9, May 2013 (b) 10, May 2013  
 (c) 11, May 2013 (d) 12, May 2013  
 (e) None of these
24. Which of the following Indian heritage site included in the list of world heritage list ?  
 (a) Western Ghat (b) Eastern Ghat  
 (c) Pullicat Lake (d) Chilka Lake  
 (e) None of these
25. What is the Ranking of India in Global Hinger Index list ?  
 (a) 65th (b) 66th (c) 67th  
 (d) 68th (e) None of these
26. How many members are associated with the organisation 'MERCOSUR' ?  
 (a) 5 (b) 6 (c) 7  
 (d) 8 (e) None of these
27. Who among the following leads top in the forbe's-100 powerful women in the world ?  
 (a) Angela Merkel (b) Michell Obama  
 (c) Hillary Clinton (d) Cristine Lagarde
28. The 9th world Hindi Conference held in which country ?  
 (a) S. Africa (b) Sri Lanka (c) Russia  
 (d) USA (e) None of these
29. The 34th Geology International Congress held in -  
 (a) Australia (b) Japan (c) China  
 (d) India (e) None of these
30. In which country a new political party 'Five Star Movement' arised through Internet ?  
 (a) Italy (b) Egypt (c) Syria  
 (d) UAE (e) None of these



**101 SPEED TEST**

**93**

**AWARDS AND HONOURS**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Who among the following is honoured with the chairmanship of Indian Banks' Association (IBA) for 2013-14 tenure  
(a) KV Kamath (b) K R Kamath  
(c) Shikha Sharma (d) Aditya Puri  
(e) Kalpana morepariya
2. Who among the following won Journalists' Player of the Year Award announced by the Kicker magazine on 28 July 2013.  
(a) Bastian Schweinsteiger  
(b) Lovan Schweinsteiger  
(c) Cathy freeman  
(d) Jack Hekinson  
(e) Samantha
3. Name the Indian who has been honoured by British Govt by placing a Blue plaque at his house  
(a) Mahmood Hussain (b) Mamnoon Hussain  
(c) Krishna Menon (d) Sudhir Menon  
(e) None of the above
4. The 21st Rajiv Gandhi National Sadhbhavna Award has been awarded to which Maestro?  
(a) Saroj Khan (b) Amjad Ali Khan  
(c) Zakir Hussain (d) Pt Bhim Sen  
(e) None of these
5. The Indian American author of "The Lowland " who has been listed among 13 novels long listed for the Man Booker Prize 2013.  
(a) Jhumpa Lahiri (b) Laura Jones  
(c) Chetan Bhagat (d) Chetna Singh  
(e) None of these
6. Tagore Award for Cultural Harmony 2013 to be conferred on which artist?  
(a) Rajendra Singh (b) Aruna Roy  
(c) Zubin Mehta (d) Hasan Ali  
(e) None of these
7. The first ever Indian woman to receive Dubai Government's coveted Emirates Woman Award for business excellence in June 2013  
(a) Vandana Gandhi (b) Meghna Gandhi  
(c) Sujata Gandhi (d) Kirti Gandhi  
(e) Ankita Gandhi
8. The famous Indian Port which was conferred with the Major Port of the Year award for its excellent performance in the year 2012-13?  
(a) Paradip Port (b) Kandla Port (c) Marmugao  
(d) Haldia (e) Vishakhapatnam
9. Who among the following is the winner of IPCA World Women's Chess Championship  
(a) Joseph Martin (b) Alexander  
(c) K. Jennitha Anto (d) Mohd. Yusuf  
(e) Craig Fillman
10. The former Secretary, Department of Telecommunications (DoT) , who was honoured with the Presidentship of NASSCOM on 5 July 2013  
(a) R. Chandrasekhar (b) P.Chandrasekhar  
(c) D.Chandrasekhar (d) Joseph Paul  
(e) None of these
11. Who among the following is the recipient of German 'Whistleblower Prize' for year 2013  
(a) Edward Snowden (b) Phil Collins  
(c) Zeithml (d) Roger Freidrick  
(e) None of these
12. The Bollywood actress who on 6 July 2013 got the Best Actress award at 14th IIFA (International Indian Film Academy) awards 2013 held in Macau  
(a) Priyanka Chopra  
(b) Vidya Balan  
(c) Aishwarya Rai Bachhan  
(d) Katrina Kaif  
(e) Sonakshi Sinha
13. Name the Tennis Legend who has been honoured with her name inclusion in Tennis hall of fame  
(a) Tracy austin (b) Martina Hingis  
(c) Hana Mandlikova (d) Bjorn Borg  
(e) None of these
14. The legendary actor and the proud recipient of Dada Saheb Phalke Award and Padma Bhushan Award who died on 12 July 2013  
(a) Pran (b) Jagdish Raj  
(c) Rajesh Khanna (d) Anand raj  
(e) Yusuf

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e)  | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. Name the organisations which won maximum number of OISD Safety awards  
(a) HPCL & BPCL (b) HPCL & Indian Oil  
(c) BPCL & Indian Oil (d) BPCL & Shell  
(e) None of these
16. Name the artist who was awarded with the Commander of the Order of Arts and Letters on 17 July 2013 for the contribution to music?  
(a) Jojo (b) Bono (c) Lolo  
(d) Keno (e) Zolo
17. Name the person who was conferred the prestigious Indian Healthcare Visionary of the Decade award.  
(a) Mukesh Hariwala (b) Harish Zariwala  
(c) Harsh Hariwala (d) Karthikeyan  
(e) Anandam
18. Name the person who was conferred the prestigious United Nations Public Service Award.  
(a) Raghavan Rao (b) Venugopalrao  
(c) Oommen Chandy (d) M.Karunakaran  
(e) Subramanyam Swamy
19. Name the Indian-origin sculptor who was honoured with Knighthood, which is the highest honour of Britain  
(a) Shubha Gill (b) Anish Kapoor  
(c) Rajesh Prasad (d) Vartika Singh  
(e) None of these
20. Name The Irish writer who won the IMPAC Dublin Literary Award for his debut novel City of Bohane which is the portrayal of Ireland of 2053  
(a) Kevin Barry (b) Harry Gomes (c) Bill Smith  
(d) Garry jone (e) Phil Sander
21. Who among the following won the gold medal from the Independent Publisher Book Awards  
(a) Michael Peterson (b) Michael Henderson  
(c) Michael Jack (d) Michael Bush  
(e) Michael Henry
22. The Indian project to receive U.N. public service awards for the year 2013  
(a) Project Mass Contact Programme  
(b) Project Swavalamban  
(c) Graamin Haat programme  
(d) (a) and (b) only  
(e) (a), (b) and (c)
23. Name the film which won Golden Goblet on 23 June 2013 for best feature film at the 16th Shanghai International Film Festival?  
(a) The Dirty Picture (b) Pan Singh Tomar  
(c) The Major (d) Special 26  
(e) The count
24. Name the British firm which has been awarded the MacRobert award for engineering innovation?  
(a) Real VNC  
(b) British Engineering corporation  
(c) CMD insight  
(d) VLC  
(e) None of these
25. Simons Investigators Awards 2013 has been conferred to which Indian-Americans?  
(a) Kannan Soundararajan  
(b) Rajeev Alur  
(c) Salil P Vadhan  
(d) Senthil Todadri  
(e) All of the above
26. Ramon Magsaysay Award for the year 2013 has been conferred to whom?  
(a) Indonesia's Corruption Eradication Commission  
(b) India's Corruption Eradication Commission  
(c) Pakistan's Corruption Eradication Commission  
(d) China' Corruption Eradication Commission  
(e) None of these
27. Name the India Cricketer who won the 'Golden Ball' Award in ICC Champions Trophy  
(a) Ravichandran ashwin  
(b) Ravindra Jadeja  
(c) Ishant Sharma  
(d) Umesh Yadav  
(e) Bhubneshwar Kumar
28. Who among the following won IMPAC Dublin literary award 2013?  
(a) Kevin harry (b) Lauren Hitch  
(c) Kevin Berry (d) Craig Smith  
(e) (a) and (b) both
29. Who among the following collection of poems is written by Prof Ramdarash Mishra, recipient of Vyas Samman  
(a) Prof .Ramprakash (b) Prof.Ramdarash  
(c) Narendra Kohli (d) (b) and (c) Both  
(e) None of these
30. Name The Uttarakhand NGO which on 6 June 2013 bagged a French award for its contribution to protection of human rights  
(a) Central Himalayan Environment Association  
(b) Uttaranchal Himalayan Environment association  
(c) Uttarakhand Himalayan Environment association  
(d) Himalayan Protection association of Uttaranchal  
(e) None of these

RESPONSE  
GRID

15. (a) (b) (c) (d) (e) 16. (a) (b) (c) (d) (e) 17. (a) (b) (c) (d) (e) 18. (a) (b) (c) (d) (e) 19. (a) (b) (c) (d) (e)  
20. (a) (b) (c) (d) (e) 21. (a) (b) (c) (d) (e) 22. (a) (b) (c) (d) (e) 23. (a) (b) (c) (d) (e) 24. (a) (b) (c) (d) (e)  
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30. (a) (b) (c) (d) (e)



**101 SPEED TEST**

**94**

**BOOKS AND AUTHORS**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. The novel of Jhumpa Lahiri which has been longlisted for Man Booker Prize 2013?  
(a) The Highland (b) The Lowland  
(c) The Midland (d) The Island  
(e) The Wetland
2. Who is the author of "An Uncertain Glory: India and its Contradictions"?  
(a) Amartya Sen & Michael Bush  
(b) Amartya Sen & Satya Paul  
(c) Amartya Sen & Jean Dreze  
(d) Amartya Sen & Zeenat Shaukat  
(e) Amartya Sen & Salman Rushdie
3. Who is the author of "Sahar Sone Chala" a collection of poems?  
(a) Salman Rushdie (b) Sat Pal  
(c) Gurcharan Singh (d) Zeenat Shaukat  
(e) None of these
4. Which among the following book is written by Michael Bush?  
(a) The King of Style: Dressing Michael Jackson  
(b) The King of Dance  
(c) The King of Dance: Michael Jackson  
(d) Michael Jackson: King of Dance  
(e) Michael Jackson: King of Style
5. Who is the author of "Ambedkar Speaks (Triology)"?  
(a) Dr Dheerendra (b) Dr Satyendra Singh  
(c) Dr Kiran Yadav (d) Dr Narendra Jadhav  
(e) Akhilesh Yadav
6. Which among the following collection of poems is written by Prof Ramdarash Mishra, recipient of Vyas Samman?  
(a) Aam ke patte (b) The journey  
(c) Peepal ke patte (d) SOZ  
(e) Taash ke patte
7. Which among the following novel is written by Narendra Kohli, recipient of Vyas Samman?  
(a) Na Bhooto Na Bhavishyavani  
(b) Bhavishyavani  
(c) Na Bhooto Na Bhavishyati  
(d) Bhoot aur Bhavishya  
(e) None of these
8. Name the Scottish author, who is best known for his novels The Wasp Factory and The Crow Road, died of Cancer on 9 June 2013  
(a) Iain Banks (b) Twain Banks  
(c) Shania Banks (d) Cathey Banks  
(e) Danny Banks
9. Pax Indica is recently authored book by?  
(a) Narendra Modi (b) Aral Bihai Vajpayee  
(c) Shashi Tharoor (d) A P J Abdul Kalam  
(e) None of these
10. Name The Malaysian author who was declared as the winner of Walter Scott Prize for his English fiction novel The Garden of Evening Mists  
(a) Zing Twan (b) Tan Twan Eng  
(c) Shin Chau (d) Suu yu Ki  
(e) Ban ki Moon
11. Name The book released on 31 July 2013 by Prime Minister of India in honour of P. Chidambaram  
(a) An Agenda for India's Growth: Essays  
(b) An Agenda for India's Fast Growth: Essays  
(c) Essays: Agenda for growth  
(d) An agenda for India's Growth :The journey  
(e) None of these
12. Which among the following book is released by Vice President of India on 24 June 2013  
(a) Smoothing Memories: Civilizations  
(b) Civilization of India: Memory  
(c) Healing Memories: Civilizations in Dialogue  
(d) Memories of the Past: A journey  
(e) None of these
13. The Novel authored by Irish author Kevin Barry which won IMPAC Dublin Literary Award 2013?  
(a) Irish Cities  
(b) Cities of Ireland  
(c) Bohane: City of Ireland  
(d) City of Bohane  
(e) None of these

**RESPONSE  
GRID**

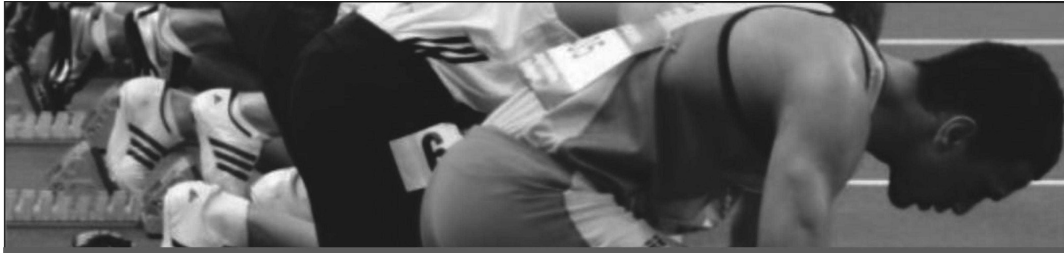
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| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e)  | 8. (a)(b)(c)(d)(e)  | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) |                    |                     |

14. Name the author who was conferred with Saraswati Samman for her collection of poems in Malayalam,  
 (a) Sugatha Kumari (b) Sangam Kumari  
 (c) Monali Kumari (d) Vishakha Kumari  
 (e) Krishna Kumari
15. Which American author has won Man Booker International Prize 2013?  
 (a) Lydia Davis (b) Laura Paul  
 (c) Maria Freeman (d) Dave Smith  
 (e) Cary Jones
16. Who is the author of "The Outsider"?  
 (a) Jimmy Connors (b) Amartya Sen  
 (c) Jean Dreze (d) Zeenat Shaukat  
 (e) Salman Rushdie
17. Who is the author of "A Garland of Memories"?  
 (a) Michael Bush (b) Ruskin Bond  
 (c) Salman Rushdie (d) Phil Smith  
 (e) None of these
18. Name the book authored by Garima Sanjay which was released by Hamid Ansari. The book highlights how a man blames the luck or someone for his failures?  
 (a) Yaadein (b) Smritiyan  
 (c) Divine Journey (d) Lucky Me  
 (e) Man by Nature
19. Who is the author of "Women of Vision"?  
 (a) Amish Tripathi (b) Preeti Shenoy  
 (c) Durjoy Dutta (d) Alam Srinivas  
 (e) Ravinder Singh
20. Who among the following is the author of the book "An Uncertain Glory: India and its contradictions"?  
 (a) Amartya Sen (b) Arundhati Roy  
 (c) A.P.J. Kalam (d) Ramachandra Guha  
 (e) None of these
21. Who is the author of "Understanding Bhagat Singh"?  
 (a) Pritish (b) Chamanlal  
 (c) Zeenat Shaukat (d) Raghuvendra  
 (e) None of these
22. Which among the following book written by Dan Brown Irked authorities of Manila?  
 (a) Inferno (b) Iterno (c) Divinity  
 (d) Divine Nation (e) My Nation
23. Name The book compiled by Kumar Deepak das and recently released by Vice President  
 (a) Patriotic India  
 (b) Heroes of India  
 (c) Looking back  
 (d) Ardent Patriot-Dinesh Goswami  
 (e) None of these
24. Who among the following is the author of "Orphan Master's son"?  
 (a) Adam Johnson (b) Michael Johnson  
 (c) Jim Herley (d) Nick Ferguson  
 (e) None of these
25. Who among the following is the author of "Religion, Law & Society - Across the Globe"?  
 (a) Salman Rushdie (b) Tahir Mahmood  
 (c) Jim Herley (d) Mohd.Raza  
 (e) None of these
26. Who among the following is the author of "How to Get Filthy Rich in Rising Asia"?  
 (a) Mohsin Hamid (b) Tahir Mahmood  
 (c) Mohd Hamid (d) Mohd.Qazi  
 (e) Mohamed Yusuf
27. Who has written the book "Walking with Lions: Tales from a Diplomatic Past"?  
 (a) P.Chidambaram (b) K.Natwar Singh  
 (c) Sashwant Sinha (d) Jaswant Singh  
 (e) Manmohan Singh
28. Which among the following is A pictorial coffee table book launched on 24 June 2013 in Mumbai by former Bombay High Court chief justice C S Dharmadhikari.  
 (a) Freedom Fighters' descendants  
 (b) Freedom Fighters' life  
 (c) Freedom Fighters' family  
 (d) Freedom Fighters' of India  
 (e) None of these
29. Which among the following books is written by Sugatha Kumari which means The Writing on the Sand in English?  
 (a) Mazalenu (b) Manalezhuthu  
 (c) Panalhuthu (d) Kanalpunthu  
 (e) None of these
30. Name the Minister who has Released Book Titled Indian Saga of Steel  
 (a) Digvijay Singh (b) Akhilesh Yadav  
 (c) Beni Prasad Verma (d) Narayan Swamy  
 (e) Kapil Sibbal

RESPONSE  
GRID

14. (a) (b) (c) (d) (e) 15. (a) (b) (c) (d) (e) 16. (a) (b) (c) (d) (e) 17. (a) (b) (c) (d) (e) 18. (a) (b) (c) (d) (e)  
 19. (a) (b) (c) (d) (e) 20. (a) (b) (c) (d) (e) 21. (a) (b) (c) (d) (e) 22. (a) (b) (c) (d) (e) 23. (a) (b) (c) (d) (e)  
 24. (a) (b) (c) (d) (e) 25. (a) (b) (c) (d) (e) 26. (a) (b) (c) (d) (e) 27. (a) (b) (c) (d) (e) 28. (a) (b) (c) (d) (e)  
 29. (a) (b) (c) (d) (e) 30. (a) (b) (c) (d) (e)





**101 SPEED TEST**

**95**

**SOCIO-ECO-POLITICAL ENVIRONMENT OF INDIA**

**Max. Marks : 30**

**No. of Qs. 30**

**Time : 20 min.**

**Date : ...../...../.....**

1. Swabhiman scheme launched in India is associated with
  - (a) Rural women rights
  - (b) Rural old people care
  - (c) Rural banking
  - (d) Rural food security
  - (e) None of these
2. In which one of the following years the unorganised workers social security Act was passed ?
  - (a) 2004
  - (b) 2006
  - (c) 2008
  - (d) 2010
  - (e) None of these
3. Tendulkar Committee has estimated that in India the percentage of the population below poverty line is-
  - (a) 27.2
  - (b) 37.2
  - (c) 22.2
  - (d) 32.7
  - (e) None of these
4. Swadhar is the scheme for
  - (a) unique identification
  - (b) self employment for males
  - (c) women in difficult circumstances
  - (d) common home of senior citizens.
  - (e) None of these
5. The aim of Pradhan Mantri Gramodaya Yojana is
  - (a) Meeting rural needs like primary education, health care, drinking water, housing, rural roads.
  - (b) Alleviating poverty through microenterprises.
  - (c) Generating employment in rural areas.
  - (d) Strengthening Panchayati Raj system in rural areas.
  - (e) None of these
6. Twenty Point Economic Programme was first launched in the year
  - (a) 1969
  - (b) 1975
  - (c) 1977
  - (d) 1980
  - (e) None of these
7. In India disguised unemployment is a prominent feature mainly of
  - (a) Primary sector
  - (b) Secondary sector
  - (c) Tertiary sector
  - (d) Social sector
  - (e) None of these
8. Golden Quadrangle project is associated with the development of
  - (a) Highways
  - (b) Ports
  - (c) Power Grids
  - (d) Tourism Network
  - (e) None of these
9. Which one of the following is the objective of National Food Security Mission ?
  - (a) To increase production of rice
  - (b) To increase production of wheat
  - (c) To increase production of pulses
  - (d) All the above
  - (e) None of these
10. Mid day Meal scheme is financed and managed by-
  - (a) Food and civil supply department of state governments
  - (b) Department of consumer affairs and welfare.
  - (c) Ministry of Programme implementation
  - (d) Ministry of Human Resource development
  - (e) None of these
11. Which of the following is not a measure of reducing inequalities ?
  - (a) Minimum needs programme
  - (b) Liberalization of economy
  - (c) Taxation
  - (d) Land reforms
  - (e) None of these
12. Which one of the following scheme subsumed the Valmiki Awas Yojana ?
  - (a) Integrated Housing and slum development Programme.
  - (b) Sampoorna Grameen Swarozgar Yojana
  - (c) Rajiv Awas Yojana
  - (d) Integrated Rural development Programme
  - (e) None of these
13. Poverty level in India is established on the basis of-
  - (a) Per capita income in different states
  - (b) House hold average income
  - (c) House hold consumer expenditure
  - (d) Slum population in the country.
  - (e) None of these
14. Nirmal Bharat Abhiyan Yojana is associated with-
  - (a) Development of villages
  - (b) Community toilets in slum areas
  - (c) Construction of house for low income groups
  - (d) Development of roads
  - (e) None of these

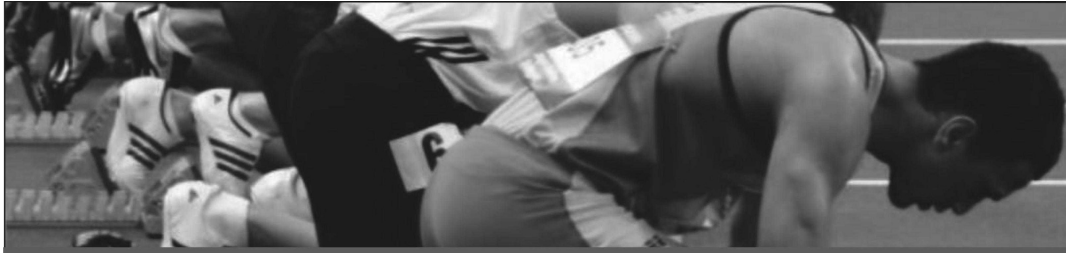
**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e)  | 3. (a)(b)(c)(d)(e)  | 4. (a)(b)(c)(d)(e)  | 5. (a)(b)(c)(d)(e)  |
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| 11. (a)(b)(c)(d)(e) | 12. (a)(b)(c)(d)(e) | 13. (a)(b)(c)(d)(e) | 14. (a)(b)(c)(d)(e) |                     |

15. Aam Aadami Bima Yojana was launched on-  
 (a) 2nd October 2007  
 (b) 2nd October 2008  
 (c) 14th November 2007  
 (d) 14th November 2008  
 (e) None of these
16. Which of the following scheme is not for rural development ?  
 (a) PMGSY (b) SGSY (c) RGGVY  
 (d) SJSRY (e) None of these
17. Child Health Screening and Early International Services Programme was launched on  
 (a) 6 Feb, 2013 (b) 7 Feb, 2013  
 (c) 2 Oct, 2012 (d) 14 Nov, 2012  
 (e) None of these
18. Who is the chairman of 20th law commission ?  
 (a) Justice A.R. Lakshmanan  
 (b) Justice P.V. Reddy  
 (c) Justice D.K. Jain  
 (d) Justice J.L. Kapoor.  
 (e) None of these
19. Which age group of women are eligible for Indira Gandhi widow Pension Scheme ?  
 (a) 40-50 (b) 50-60 (c) 40-59  
 (d) 40-79 (e) None of these
20. Under which project India is developing guided missile destroyers?  
 (a) Project 20B (b) Project 15B  
 (c) Project 75B (d) Project 40A  
 (e) None of these
21. E-Samiksha is an online project monitoring system launched by \_\_\_\_?  
 (a) Indian Railways (b) NHAI  
 (c) RBI (d) FIPB  
 (e) None of these
22. India is implementing "Capacity Building for Industrial Pollution Management (CBIPM)" project with the support of \_\_?  
 (a) Asian Development Bank  
 (b) Japan Central Bank  
 (c) World Bank  
 (d) Reserve Bank of India  
 (e) None of these
23. Who is the chairman of the Panel set up to look into various contentious issues relating to inter-linking of rivers?  
 (a) B N Navalawala (b) Hardip Singh Puri  
 (c) Prodipto Ghosh (d) Gopalakrishnan  
 (e) None of these
24. Who has been appointed as new Chief Election Commissioner of India?  
 (a) Nasim Zaidi (b) Sayed Nazim  
 (c) H Hari Shankar (d) V S Chikkamata  
 (e) None of these
25. What is the name of the new scheme to empower and enable minority youths, announcement for which was made in the budget?  
 (a) New Udaan (b) Nayi Soch  
 (c) Nayi Umang (d) Nayi Manzil  
 (e) None of these
26. What is the name of the new insurance scheme announced in the Budget under which insurance coverage of ` 2 lakh will be provided with a daily premium of Re.1?  
 (a) Pradhan Mantri Life Jyoti Bima Yojana  
 (b) Pradhan Mantri Jeevan Bima Yojana  
 (c) Pradhan Mantri Jeevan jyotigamay Bima Yojana  
 (d) Pradhan Mantri Jeevan Jyoti Bima Yojana  
 (e) None of these
27. How much additional allocation for MGNREGA was announced in the Budget, which had made this year's MNREGA allocation the highest ever?  
 (a) ` 4000 crore (b) ` 4500 crore  
 (c) ` 5000 crore (d) ` 5500 crore  
 (e) None of these
28. The Budget proposed what status to the non-banking financial companies (NBFCs) registered with RBI with corpus above ` 5,000 crore?  
 (a) Banking Institutions (b) Private sector  
 (c) Public Sector (d) Financial Institutions  
 (e) None of these
29. The long-pending Goods and Services Tax (GST) Bill was moved in the Lok Sabha by Finance Minister Arun Jaitley amid stiff resistance by several Opposition parties on 24 April 2015. The Bill seeks to amend the Constitution to introduce GST which will subsumes various Central indirect taxes, including the Central Excise Duty, Countervailing Duty, Service Tax, etc. It also subsumes State value added tax (VAT), octroi and entry tax, luxury tax, etc. The GST Bill, if passed in the Parliament, will facilitate which amendment in the Indian Constitution?  
 (a) One Hundred and Twenty-Second Amendment (122ndAmendment)  
 (b) One Hundred and Twenty-Third Amendment (123rdAmendment)  
 (c) One Hundred and Twenty-fourth Amendment (124thAmendment)  
 (d) One Hundred and Twenty-fifth Amendment (125thAmendment)  
 (e) None of these
30. Union Human Resource and Development (HRD) Minister Smriti Irani introduced the logo winner of for the New Education Policy (NEP) who emerged as the winner in the competition was held through MyGov Platform. What is his name?  
 (a) Nawab Shaikh (b) Ali Ahmed  
 (c) Nawaj Shaikh (d) Mansood Pataudi  
 (e) None of these

**RESPONSE  
GRID**

15. (a)(b)(c)(d)(e) 16. (a)(b)(c)(d)(e) 17. (a)(b)(c)(d)(e) 18. (a)(b)(c)(d)(e) 19. (a)(b)(c)(d)(e)  
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 30. (a)(b)(c)(d)(e)



**101 SPEED TEST**

96

**FUNDAMENTALS OF MARKETING, PRODUCT AND BRANDING**

**Max. Marks : 50**

**No. of Qs. 50**

**Time : 30 min.**

**Date : ...../...../.....**

1. Marketing is:
  - (a) Only selling
  - (b) meeting human & social needs while earning profits
  - (c) focus on customer
  - (d) focus on producing goods/ service
  - (e) Both (b) and (c)
2. Long term objective of marketing is
  - (a) customer satisfaction
  - (b) profit maximisation
  - (c) cost cutting
  - (d) profit maximisation with customer
  - (e) None of these
3. Market information means
  - (a) knowledge of companies
  - (b) cross-country information
  - (c) knowledge of related markets
  - (d) knowledge of current customers
  - (e) None of these
4. Marketing and Selling are
  - (a) not required if profit is high
  - (b) not required if sales are high
  - (c) not required in monopolistic conditions
  - (d) All of the above
  - (e) None of these
5. Direct Marketing is necessary for
  - (a) having a focussed approach
  - (b) boosting sales
  - (c) better customer contacts
  - (d) All of the above
  - (e) None of these
6. Marketing is required for
  - (a) boosting production
  - (b) reducing costs
  - (c) boosting profits
  - (d) improving customer service
  - (e) All of the above
7. Marketing is successful when
  - (a) demand exceeds supply
  - (b) supply exceeds demand
  - (c) exports are heavy and costly
  - (d) salesmen are effective
  - (e) All the above
8. In marketing the benefits of selling extend to
  - (a) Only products and services
  - (b) Only after sales services
  - (c) Lifelong relationship with the buyer
  - (d) All of these
  - (e) None of these
9. A Market Plan is \_\_\_\_\_.
  - (a) company's prospectus
  - (b) Memorandum of Association
  - (c) document for marketing strategies
  - (d) business goals
  - (e) action plan for better production
10. Marketing helps in \_\_\_\_\_.
  - (a) boosting production
  - (b) getting new clients
  - (c) interacting with strangers
  - (d) All of these
  - (e) None of these
11. Marketing is the art of \_\_\_\_\_.
  - (a) buying more
  - (b) paying more
  - (c) selling more
  - (d) talking more
  - (e) only (a) & (b)
12. Selling is \_\_\_\_\_.
  - (a) different from Marketing
  - (b) a sub-function of marketing
  - (c) same as Marketing
  - (d) more than Marketing
  - (e) All of these

**RESPONSE  
GRID**

- |                            |                            |                           |                           |                            |
|----------------------------|----------------------------|---------------------------|---------------------------|----------------------------|
| <b>1.</b> (a)(b)(c)(d)(e)  | <b>2.</b> (a)(b)(c)(d)(e)  | <b>3.</b> (a)(b)(c)(d)(e) | <b>4.</b> (a)(b)(c)(d)(e) | <b>5.</b> (a)(b)(c)(d)(e)  |
| <b>6.</b> (a)(b)(c)(d)(e)  | <b>7.</b> (a)(b)(c)(d)(e)  | <b>8.</b> (a)(b)(c)(d)(e) | <b>9.</b> (a)(b)(c)(d)(e) | <b>10.</b> (a)(b)(c)(d)(e) |
| <b>11.</b> (a)(b)(c)(d)(e) | <b>12.</b> (a)(b)(c)(d)(e) |                           |                           |                            |

13. Social Marketing is \_\_\_\_\_.  
 (a) Share market prices  
 (b) Marketing by the entire society  
 (c) Internet Marketing  
 (d) Marketing for a social cause  
 (e) Society bye-laws
14. Marketing is the combined study of  
 (a) Buyer's behaviour and consumer tasks  
 (b) Product demand and Product supply  
 (c) Brand building and Publicity  
 (d) Sales force abilities and customer response  
 (e) All of the above
15. The sales process begins with  
 (a) customer identification  
 (b) lead generation  
 (c) sales presentation  
 (d) sales closure  
 (e) sales meet
16. XXX is selecting and analyzing a target market and developing a marketing mix to gain long-run competitive advantages. XXX is creating a.  
 (a) Corporate strategy (b) Target design  
 (c) Mix strategy (d) Marketing strategy  
 (e) None of these
17. Critical success factors for a firm includes \_\_\_\_\_.  
 (a) Changing lifestyles and attitudes  
 (b) Low-cost production efficiency  
 (c) Both (a) and (b)  
 (d) Marketing strategy  
 (e) None of the above
18. A differentiated product may be unique by itself but it will only be successful only \_\_\_\_\_.  
 (a) if it satisfies customers' needs  
 (b) if price differential is minimal  
 (c) if brand can be classed as aspirational  
 (d) differentiated products will always be successful  
 (e) None of these
19. Establishing and maintaining a distinctive place in the market for an organization/product is \_\_\_\_\_.  
 (a) Profiling (b) Profiling segmentation  
 (c) Segmentation (d) Positioning  
 (e) None of these
20. \_\_\_\_\_ of ad means how frequently you should expose your target group to your message.  
 (a) Frequency (b) Copy  
 (c) Copy strategy (d) Media  
 (e) None of these
21. Market is divided into groups on the basis of age, family size, gender, income, occupation, education, religion, race, generation, nationality, or social class is the best description of \_\_\_\_\_.  
 (a) Demographics (b) Psychographics  
 (c) Behavioral (d) Geographic  
 (e) None of these
22. What approach should a brand manager adopt to know the status of a brand in terms of consumer perceptions?  
 (a) Compare two or three brands  
 (b) Analyze market segmentations  
 (c) Select potential target markets  
 (d) Understand customer's needs  
 (e) None of these
23. Introducing additional items in the same product category by adding new flavors, forms, colors, ingredients or package sizes, under the same brand name, is \_\_\_\_\_.  
 (a) Line extensions (b) Product mix  
 (c) Interactive marketing (d) Service intangibility  
 (e) None of these
24. To investigate new markets \_\_\_\_\_ management function is important.  
 (a) Finance functions. (b) Marketing.  
 (c) Production. (d) HRM.  
 (e) None of these
25. \_\_\_\_\_ is a "category killer".  
 (a) Products which stock must have products that need to be stocked by retailers due to consumer demand like Coca Cola & Kellogg's.  
 (b) These are speciality stores with a deep product line to be sold in restricted shop space  
 (c) These are retail outlets with a narrow product focus but sell products at low prices by bulk buying, low margins and selling high volumes  
 (d) These are retail outlets with a wide product focus but with a wide width and depth to products  
 (e) These are retail outlets with a narrow product focus but with wide width and depth
26. Product life cycle theory maximizes profit at.  
 (a) Developed Stage (b) Early Stage  
 (c) Matured Stage (d) Declined Stage  
 (e) Cannot be predicted

<b>RESPONSE GRID</b>	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)	<b>17.</b> (a)(b)(c)(d)(e)
	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)	<b>22.</b> (a)(b)(c)(d)(e)
	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)	<b>26.</b> (a)(b)(c)(d)(e)	

27. Marketing Plans are used for  
 (a) doing Research by Marketing students  
 (b) planning Departments  
 (c) purchase of consumable items from retail outlets  
 (d) All of the above  
 (e) None of these
28. Product mix means  
 (a) distributing mix products  
 (b) collecting ideas to sell better  
 (c) satisfying the customer  
 (d) bundle of products required by the customer  
 (e) products designed by the company
29. Buyer Resistance' means \_\_\_\_\_.  
 (a) Buyer's interest in the product  
 (b) Buyer being aggressive with the seller  
 (c) Buyer's hesitation in buying the product  
 (d) Buyer becoming a seller  
 (e) Buyer purchasing the product
30. Direct Marketing is useful for \_\_\_\_\_.  
 (a) Designing Products  
 (b) Sending e-mails  
 (c) Increased production  
 (d) Bigger job opportunities  
 (e) None of these
31. Good marketing is no accident, but a result of careful planning and \_\_\_\_\_.  
 (a) execution (b) selling  
 (c) strategies (d) research  
 (e) None of these
32. Marketing management is \_\_\_\_\_.  
 (a) managing the marketing process  
 (b) monitoring the profitability of the company's products and services  
 (c) the art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value  
 (d) developing marketing strategies to move the company forward  
 (e) None of these
33. If a firm is practicing \_\_\_\_\_, the firm is training and effectively motivating its customer-contact employees and all of the supporting service people to work as a team to provide customer satisfaction.  
 (a) double-up marketing  
 (b) interactive marketing  
 (c) service marketing  
 (d) internal marketing  
 (e) None of these
34. Adding new features to a product is advocated by which of the approaches?  
 (a) Product Approach  
 (b) Production Approach  
 (c) Marketing Approach  
 (d) Selling Approach  
 (e) None of these
35. When a company distributes its products through a channel structure that includes one or more resellers, this is known as \_\_\_\_\_.  
 (a) Indirect marketing  
 (b) direct marketing  
 (c) multi-level marketing  
 (d) integrated marketing  
 (e) None of these
36. In marketing theory, every contribution from the supply chain adds \_\_\_\_\_ to the product.  
 (a) value (b) costs  
 (c) convenience (d) ingredients  
 (e) None of these
37. Anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need is called a(n):  
 (a) idea (b) demand  
 (c) product (d) service  
 (e) None of these
38. Marketing is both an "art" and a "science" there is constant tension between the formulated side of marketing and the \_\_\_\_\_ side.  
 (a) creative (b) selling  
 (c) management (d) behaviour  
 (e) None of these
39. Holistic marketers achieve profitable growth by expanding customer share, \_\_\_\_\_, and capturing customer lifetime value.  
 (a) undermining competitive competencies  
 (b) building customer loyalty  
 (c) milking the market for product desires  
 (d) renewing a customer base  
 (e) None of these

**RESPONSE  
GRID**

27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e) 31. (a)(b)(c)(d)(e)  
 32. (a)(b)(c)(d)(e) 33. (a)(b)(c)(d)(e) 34. (a)(b)(c)(d)(e) 35. (a)(b)(c)(d)(e) 36. (a)(b)(c)(d)(e)  
 37. (a)(b)(c)(d)(e) 38. (a)(b)(c)(d)(e) 39. (a)(b)(c)(d)(e)

- 40. The act of trading a desired product or service to receive something of value in return is known as which key concept in marketing?  
(a) product (b) exchange  
(c) production (d) customer  
(e) None of these
- 41. The most basic level of a product is called the \_\_\_\_\_.  
(a) core product.  
(b) central product.  
(c) fundamental product.  
(d) augmented product.  
(e) None of these
- 42. Which one of the following statements by a company chairman BEST reflects the marketing concept?  
(a) We have organized our business to satisfy the customer needs  
(b) We believe that marketing department must organize to sell what we produce  
(c) We try to produce only high quality, technically efficient products  
(d) We try to encourage company growth in the market  
(e) None of these
- 43. Companies selling mass consumer goods and services such as soft drinks, cosmetics, air travel, and athletic shoes and equipment spend a great deal of time trying to establish a superior brand image in markets called \_\_\_\_\_.  
(a) business markets  
(b) global markets  
(c) consumer markets  
(d) nonprofit and governmental markets  
(e) service markets
- 44. Which of the following is the most recent stage of marketing evolution?  
(a) Marketing department era  
(b) Production era  
(c) Sales era  
(d) Marketing company era  
(e) None of these
- 45. The controllable variables a company puts together to satisfy a target group is called the \_\_\_\_\_.  
(a) Marketing strategy  
(b) Marketing mix  
(c) Strategic planning  
(d) Marketing concept  
(e) None of these
- 46. Which of the following is not an element of the marketing mix?  
(a) Distribution.  
(b) Product.  
(c) Target market.  
(d) Pricing.  
(e) None of these
- 47. In relationship marketing firms focus on \_\_\_\_\_ relationships with \_\_\_\_\_.  
(a) short-term; customers and suppliers  
(b) long-term; customers and suppliers  
(c) short-term; customers  
(d) long-term; customers  
(e) None of these
- 48. Which of the following statements is correct?  
(a) Marketing is the term used to refer only to the sales function within a firm.  
(b) Marketing managers don't usually get involved in production or distribution decisions.  
(c) Marketing is an activity that considers only the needs of the organization; not the needs of society as a whole.  
(d) Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.  
(e) None of these
- 49. The term marketing refers to:  
(a) new product concepts and improvements.  
(b) advertising and promotion activities.  
(c) a philosophy that stresses customer value and satisfaction.  
(d) planning sales campaigns  
(e) None of these
- 50. Buying and selling of mass consumer goods and services comes under which of the following markets?  
(a) Business markets  
(b) Global markets  
(c) Consumer markets  
(d) Government markets  
(e) None of these

**RESPONSE  
GRID**

40. (a)(b)(c)(d)(e) 41. (a)(b)(c)(d)(e) 42. (a)(b)(c)(d)(e) 43. (a)(b)(c)(d)(e) 44. (a)(b)(c)(d)(e)  
45. (a)(b)(c)(d)(e) 46. (a)(b)(c)(d)(e) 47. (a)(b)(c)(d)(e) 48. (a)(b)(c)(d)(e) 49. (a)(b)(c)(d)(e)  
50. (a)(b)(c)(d)(e)



**101 SPEED TEST**

**97**

**MARKET SITUATIONS BASED ON PRICE, DISTRIBUTION, PROMOTION AND ADVERTISING**

**Max. Marks : 50**

**No. of Qs. 50**

**Time : 30 min.**

**Date : ...../...../.....**

1. A company's own retail outlets are meant \_\_\_\_\_.
  - (a) To avoid the threat of distributors' power
  - (b) To own and control the distribution channel
  - (c) Distribution is profitable
  - (d) All of the above
  - (e) None of the above
2. Advertising \_\_\_\_\_ can attract consumers only if it is based on their needs.
  - (a) Reach
  - (b) Copy
  - (c) Frequency
  - (d) Media
  - (e) None of these
3. Major source of power in a distribution channel is the \_\_\_\_\_.
  - (a) Company
  - (b) Brand
  - (c) Distributor
  - (d) Customer
  - (e) None of these
4. Factors affecting choice of distribution channel include \_\_\_\_\_.
  - (a) Customer value
  - (b) Sales revenues
  - (c) Both [a] and [b]
  - (d) Customer services
  - (e) None of the above
5. Pricing models offers opportunity to set different prices for different needs is \_\_\_\_\_.
  - (a) Segment pricing
  - (b) Skim pricing
  - (c) Value-in-use pricing
  - (d) Strategic account pricing
  - (e) None of these
6. Advertising helps sales promotion by creating awareness and comprehension that creates \_\_\_\_\_.
  - (a) Customer pull
  - (b) Customer push
  - (c) Customer loyal
  - (d) Customer image
  - (e) None of these
7. Advertising copy \_\_\_\_\_.
  - (a) Provides continuity in a brand's advertising
  - (b) Help a brand achieve distinctiveness
  - (c) Provides a common benchmark on which all concerned in the company and the agency can evaluate merits of advertising campaign
  - (d) All of the above
  - (e) None of these
8. Duration of \_\_\_\_\_ should be short and should not be repeated.
  - (a) Sales promos
  - (b) Market promos
  - (c) Brand promos
  - (d) Product promos
  - (e) None of these
9. An effective advertising campaign \_\_\_\_\_.
  - (a) Revolves around a strong central idea
  - (b) Should appeal to consumers self interest
  - (c) Must not be generalised
  - (d) All of the above
  - (e) None of these
10. Prices of luxury product are explained by \_\_\_\_\_.
  - (a) Plus-one pricing
  - (b) Skim pricing
  - (c) Strategic account pricing
  - (d) Segment pricing
  - (e) None of these
11. \_\_\_\_\_ about Place/Distribution decisions is CORRECT?
  - (a) Product classes are not related to Place objectives
  - (b) The product life cycle is not related to Place objectives
  - (c) Place decisions are short-term decisions that are easy to change
  - (d) Different market segments may require separate Place arrangements.
  - (e) None of these

**RESPONSE GRID**

- |                     |                    |                    |                    |                     |
|---------------------|--------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e)  | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e)  | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |
| 11. (a)(b)(c)(d)(e) |                    |                    |                    |                     |

12. Communication through a news story about an organization and its products that is transmitted through a mass medium at no charge is \_\_\_\_\_.
  - (a) Advertising
  - (b) Sales promotion
  - (c) Personal selling
  - (d) Publicity
  - (e) None of these
13. \_\_\_\_\_ is a disadvantage of using an agent in a channel of distribution?
  - (a) Length of channel
  - (b) Cost factor
  - (c) Lack of control
  - (d) Speed of distribution
  - (e) Absence of market knowledge
14. \_\_\_\_\_ enables a company to control channels of distribution?
  - (a) Vertical marketing system
  - (b) Franchising
  - (c) Exclusive dealing arrangements
  - (d) Vertical integration
  - (e) All of the above
15. Distribution where a limited number of outlets in a geographical area to sell its products are used is called \_\_\_\_\_.
  - (a) Exhaustive distribution
  - (b) Exclusive distribution
  - (c) Intensive distribution
  - (d) Selective distribution
  - (e) Segmented distribution
16. Power in marketing channels is now with \_\_\_\_\_.
  - (a) Distributor
  - (b) Manufacturer
  - (c) Retailer
  - (d) Wholesaler
  - (e) Consumer
17. \_\_\_\_\_ is a strength associated with franchising?
  - (a) Reduces marketing promotional and administration costs
  - (b) Goal conflict does not arise
  - (c) Reduces levels of channel conflict within the channel
  - (d) Combine the strengths of a large sophisticated marketing-oriented organization with the energy and motivation of a locally owned outlet
  - (e) All of the above
18. Best method of advertisement is
  - (a) glow sign boards
  - (b) internet
  - (c) Television
  - (d) Consumer awareness
  - (e) customer satisfaction
19. A form of distribution in which manufacturer makes an agreement with a middleman in each market stipulating that the distribution of the product will be confined in that area is:
  - (a) mass distribution
  - (b) exclusive agency distribution
  - (c) selective distribution
  - (d) price based distribution
  - (e) None of these
20. If Marketing is done effectively, \_\_\_\_\_ is not required
  - (a) Advertisement
  - (b) Publicity
  - (c) Market Research
  - (d) Market Segmentation
  - (e) None of these
21. Sales forecasting involves
  - (a) sales planning
  - (b) sales pricing
  - (c) distribution channels
  - (d) consumer tastes
  - (e) All of these
22. Proper pricing is essential for \_\_\_\_\_.
  - (a) extra charges for extra services
  - (b) levy of VAT
  - (c) good customer service
  - (d) putting burden on the customer
  - (e) service with extra facilities
23. Selling skills are measured by \_\_\_\_\_.
  - (a) number of goods sold
  - (b) amount of profit earned
  - (c) number of customers converted
  - (d) All of the above
  - (e) None of these
24. Promotion means
  - (a) additional responsibility
  - (b) undertaking research in marketing
  - (c) advertisement and publicity for marketing
  - (d) going up the promotional ladder
  - (e) All of the above
25. Negotiation skills help in \_\_\_\_\_.
  - (a) evolving a consensus
  - (b) breaking the ice
  - (c) carry marketing further
  - (d) Mutual win-win situation
  - (e) All of these

<b>RESPONSE GRID</b>	<b>12.</b> (a) (b) (c) (d) (e)	<b>13.</b> (a) (b) (c) (d) (e)	<b>14.</b> (a) (b) (c) (d) (e)	<b>15.</b> (a) (b) (c) (d) (e)	<b>16.</b> (a) (b) (c) (d) (e)
	<b>17.</b> (a) (b) (c) (d) (e)	<b>18.</b> (a) (b) (c) (d) (e)	<b>19.</b> (a) (b) (c) (d) (e)	<b>20.</b> (a) (b) (c) (d) (e)	<b>21.</b> (a) (b) (c) (d) (e)
	<b>22.</b> (a) (b) (c) (d) (e)	<b>23.</b> (a) (b) (c) (d) (e)	<b>24.</b> (a) (b) (c) (d) (e)	<b>25.</b> (a) (b) (c) (d) (e)	



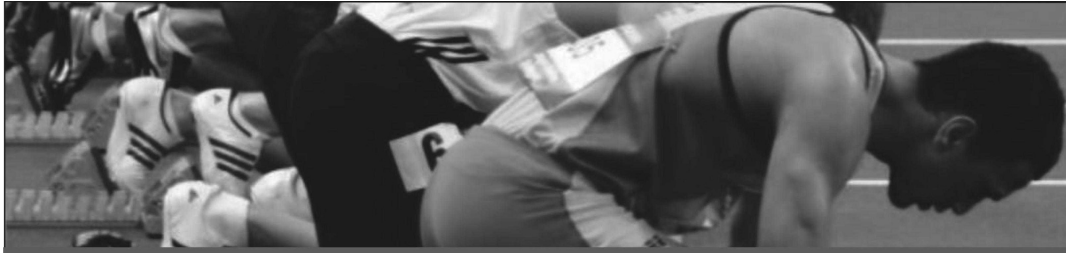
26. Relationship Marketing is useful for  
 (a) trade between relatives  
 (b) trade between sister concerns  
 (c) cross-selling of products  
 (d) preparing a list of relatives  
 (e) There is no such term as Relationship Marketing
27. Good Public Relations means improved \_\_\_\_\_.  
 (a) Marketing skills (b) Brand Image  
 (c) Customer Service (d) All of these  
 (e) None of these
28. One method of Market Monitoring is \_\_\_\_\_.  
 (a) Monitor Performance of sales staff.  
 (b) Monitor the SENSEX  
 (c) Monitor Media Outlets  
 (d) Monitor profits  
 (e) None of these
29. Which one of the following is a broad set of communication activities used to create and maintain favorable relations between the organization and its publics?  
 (a) Advertising (b) Sales Promotiona  
 (c) Public Relation (d) Publicity  
 (e) None of these
30. The \_\_\_\_\_ includes the immediate actors involved in producing, distributing, and promoting the offering.  
 (a) Task environment  
 (b) Broad environment  
 (c) Marketing environment  
 (d) Customer environment  
 (e) None of these
31. Which one of the following is NOT a part of Advertising Pyramid?  
 (a) Attention (b) Desire  
 (c) Need (d) Interest  
 (e) None of these
32. Which one of the following types of advertising promotes products, services or ideas with the expectation of making a profit?  
 (a) Product advertising  
 (b) Commercial advertising  
 (c) Non-commercial advertising  
 (d) Action advertising  
 (e) None of these
33. Which one of the following components accesses the actual behavior of the customer towards a particular advertising campaign?  
 (a) Pre campaign  
 (b) Mid campaign  
 (c) Post campaign  
 (d) Future campaign  
 (e) At any stage
34. In which one of the following components, agency analyzes whether message content & presentation will perform as desired or what changes may be required?  
 (a) Copy research  
 (b) Media research  
 (c) Market research  
 (d) Distribution research  
 (e) None of these
35. A marketer uses pioneer advertising to \_\_\_\_\_.  
 (a) Promote established brands  
 (b) Compare brand names  
 (c) Promote a product in the introductory stage of the life cycle  
 (d) Introduce a competitive version of the product  
 (e) None of these
36. Advertising can be used to sell:  
 (a) Product (b) Services  
 (c) Idea (d) All of these  
 (e) None of these
37. Nestle gave an advertisement, "Nestlé's makes the very best chocolate," which one of the following claim they have used in this advertisement?  
 (a) Puffery  
 (b) Weasel claim  
 (c) Shock ad  
 (d) Emotional ad  
 (e) None of these
38. Keep in mind the creative process of advertising, which of the following means; "taking the information, working with it and thinking about it in the mind".  
 (a) Immersion  
 (b) Incubation  
 (c) Digestion  
 (d) Verification  
 (e) None of these

**RESPONSE  
GRID**

26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)  
 31. (a)(b)(c)(d)(e) 32. (a)(b)(c)(d)(e) 33. (a)(b)(c)(d)(e) 34. (a)(b)(c)(d)(e) 35. (a)(b)(c)(d)(e)  
 36. (a)(b)(c)(d)(e) 37. (a)(b)(c)(d)(e) 38. (a)(b)(c)(d)(e)

39. Which one of the following is NOT an ingredient of a Promotional mix?  
 (a) Direct marketing (b) Sales promotion  
 (c) Warehousing (d) Advertising  
 (e) None of these
40. Which one of the following is the basic purpose of marketing?  
 (a) Identify target customers  
 (b) Identify needs and demands of customers  
 (c) Identify market segment  
 (d) Identify buyers and sellers  
 (e) None of these
41. With which of the following, the concept of 'Intermediaries' is most closely associated?  
 (a) Personal Selling  
 (b) Directory Advertising  
 (c) Channels of distribution  
 (d) All of the given options  
 (e) None of these
42. Which one of the following is the basic equation of "VALUE"?  
 (a) Value = brand image / cost  
 (b) Value = cost / convenience  
 (c) Value = cost / loyalty  
 (d) Value = benefit / cost  
 (e) None of these
43. The promotion technique for censurers according to which demonstrations and displays of products made at place of sale is called \_\_\_\_\_.  
 (a) point of purchase promotion  
 (b) cent off deals  
 (c) sales premium  
 (d) advertising specialities  
 (e) None of these
44. Which of the following is a set of promises that the brand makes to customers?  
 (a) Brand contract  
 (b) Brand association  
 (c) Brand persona  
 (d) Brand equity  
 (e) None of these
45. \_\_\_\_\_ is the only element of the marketing mix that produces revenue.  
 (a) Product  
 (b) Price  
 (c) Place (distribution)  
 (d) Promotion  
 (e) None of these
46. Which of the following is one of the marketer's major positioning tools, that has a direct impact on product or service performance; thus, it is closely linked to customer value and satisfaction?  
 (a) Product quality  
 (b) Social marketing  
 (c) Specialty marketing  
 (d) Production quality  
 (e) Production quality
47. The use of promotional media such as television where a business does not have any direct control is known as:  
 (a) Above the line promotion  
 (b) Expensive promotion  
 (c) Direct promotion  
 (d) Below the line promotion  
 (e) None of these
48. Which of the following is not a method of promotion?  
 (a) Advertising  
 (b) Retailing  
 (c) Direct mail  
 (d) Public relations  
 (e) None of these
49. A business wishes to reach a wide audience who would otherwise not know about its product. Which method of promotion is likely to be most effective at achieving this?  
 (a) Direct mail  
 (b) Email  
 (c) Advertising  
 (d) Sponsorship  
 (e) None of these
50. Which of the following is not part of the promotional mix?  
 (a) Personal selling  
 (b) Sales promotion  
 (c) Customer care  
 (d) Direct marketing  
 (e) None of these

<b>RESPONSE GRID</b>	39. (a)(b)(c)(d)(e)	40. (a)(b)(c)(d)(e)	41. (a)(b)(c)(d)(e)	42. (a)(b)(c)(d)(e)	43. (a)(b)(c)(d)(e)
	44. (a)(b)(c)(d)(e)	45. (a)(b)(c)(d)(e)	46. (a)(b)(c)(d)(e)	47. (a)(b)(c)(d)(e)	48. (a)(b)(c)(d)(e)
	49. (a)(b)(c)(d)(e)	50. (a)(b)(c)(d)(e)			



**101 SPEED TEST**

**98**

**MARKET SEGMENTATION, TARGETING AND POSITIONING**

**Max. Marks : 50**

**No. of Qs. 50**

**Time : 30 min.**

**Date : ...../...../.....**

1. 4 P's of Marketing are \_\_\_\_\_.  
(a) Primary Marketing Techniques  
(b) Person, Place, Product and Promotion  
(c) Promoting Authority  
(d) Purpose, Place, Passion, and Product  
(e) None of these
2. Qualities essential in good marketing are \_\_\_\_\_.  
(a) aggressiveness  
(b) pushy  
(c) perseverance  
(d) politeness  
(e) Only (c) and (d)
3. \_\_\_\_\_ is not a part of 7 P's of Marketing.  
(a) Product  
(b) Price  
(c) Production  
(d) Promotion  
(e) People
4. Market Share means \_\_\_\_\_.  
(a) share market  
(b) share prices  
(c) IPOs  
(d) Scope for marketing  
(e) Share of business among pproducers
5. If lots of customers like the brand and are inclined to be bound into a contract, they would be known as \_\_\_\_\_.  
(a) Loyal customer  
(b) Difficult customer  
(c) Potential customer  
(d) Finicky customer  
(e) None of these
6. \_\_\_\_\_ evokes a hierarchical set of customer response effects i.e. building awareness, comprehension, intentions, and actions.  
(a) Distribution  
(b) Communication  
(c) Merchandizing  
(d) Branding  
(e) None of these
7. Apart from the 'four Ps' of marketing mix, the three additional elements of service brands are people, process, and \_\_\_\_\_.  
(a) Physical evidence  
(b) Physiological evidence  
(c) Psychological evidence  
(d) Packaging  
(e) None of these
8. Unique Selling Proposition (USP) started in \_\_\_\_\_.  
(a) Advertising era  
(b) Image era  
(c) Product era  
(d) Positioning era  
(e) None of these
9. Positioning has to stem from the point of view of \_\_\_\_\_.  
(a) Customers'  
(b) Competitors'  
(c) General Managers'  
(d) Brand Owners'  
(e) None of these
10. \_\_\_\_\_ is a marketer's major positioning tool that has a direct impact on product performance and is linked to customer value.  
(a) Product quality  
(b) Social marketing  
(c) Specialty marketing  
(d) Production quality  
(e) None of these
11. \_\_\_\_\_ determines why customers buy?  
(a) Customer needs analysis  
(b) Brand-based customer model  
(c) Good brand promise  
(d) Brand management process  
(e) None of these

**RESPONSE  
GRID**

- |     |                 |    |                 |    |                 |    |                 |     |                 |
|-----|-----------------|----|-----------------|----|-----------------|----|-----------------|-----|-----------------|
| 1.  | (a)(b)(c)(d)(e) | 2. | (a)(b)(c)(d)(e) | 3. | (a)(b)(c)(d)(e) | 4. | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6.  | (a)(b)(c)(d)(e) | 7. | (a)(b)(c)(d)(e) | 8. | (a)(b)(c)(d)(e) | 9. | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |
| 11. | (a)(b)(c)(d)(e) |    |                 |    |                 |    |                 |     |                 |

12. Marketers need to position their brands clearly in target customers' minds. The strongest brands go beyond attributes or benefit positioning. They are positioned on the basis of \_\_\_\_\_.
  - (a) Desirable benefit
  - (b) Good packaging
  - (c) Strong beliefs and values
  - (d) Service inseparability
  - (e) None of these
13. Target marketing featuring customized marketing programmes is \_\_\_\_\_.
  - (a) Individual marketing
  - (b) Segment marketing
  - (c) Family marketing
  - (d) Local marketing
  - (e) Niche marketing
14. \_\_\_\_\_ segmentation divides the market into different units like nations, states, regions, cities or neighbourhoods.
  - (a) Geographic
  - (b) Demographic
  - (c) Psychographic
  - (d) Behavioral
  - (e) Socio-economic
15. \_\_\_\_\_ segmentation is where the market is divided on the basis of age, family size, life cycle, gender, income, occupation, education and religion .
  - (a) Geographic
  - (b) Demographic
  - (c) Psychographic
  - (d) Behavioral
  - (e) Socio-economic
16. To be useful market segments must assess on \_\_\_\_\_ criteria.
  - (a) five
  - (b) two
  - (c) three
  - (d) four
  - (e) Six
17. Market Segmentation means
  - (a) dividing the market into groups
  - (b) segmenting by age
  - (c) segmenting by tastes
  - (d) geographic segmenting
  - (e) None of the above
18. In Marketing, Market penetration means
  - (a) entering customers houses
  - (b) covering stores and shops
  - (c) covering a wide market
  - (d) All of the above
  - (e) None of these
19. Rural Marketing is more effective if arranged through.
  - (a) melas
  - (b) village fairs
  - (c) door to door campaign
  - (d) All of these
  - (e) None of these
20. 'Buyer Resistance' means \_\_\_\_\_.
  - (a) Buyer's interest in the product
  - (b) Buyer fighting with the seller
  - (c) Buyer's hesitation in buying the product
  - (d) Buyer becoming a seller
  - (e) Buyer buying the product
21. Opportunities for growth and expansion are identified by finding \_\_\_\_\_.
  - (a) Customers' beliefs about the segment
  - (b) Customers believe about competitors
  - (c) Customer's perceptions about the brand
  - (d) Customer's response about the products
  - (e) None of these
22. What explains Maslow's Motivation Theory best?
  - (a) Importance of motivation of customer development
  - (b) When people are driven by particular need at particular times
  - (c) When human needs are arranged in a hierarchy
  - (d) All of these
  - (e) Only (b) and (c)
23. Customer Database is used by
  - (a) individuals
  - (b) institutions
  - (c) builders
  - (d) marketing experts
  - (e) None of these
24. Motivation is essential to effective marketing. What other qualities are required for marketing?
  - (a) Confidence
  - (b) Effective Communication skills
  - (c) Team work
  - (d) Perseverance
  - (e) All of the above
25. Market Penetration is possible through
  - (a) more calls to the same buyers
  - (b) more calls to potential buyers
  - (c) surrogate marketing
  - (d) alternate marketing
  - (e) All of these

<b>RESPONSE GRID</b>	<b>12.</b> (a)(b)(c)(d)(e)	<b>13.</b> (a)(b)(c)(d)(e)	<b>14.</b> (a)(b)(c)(d)(e)	<b>15.</b> (a)(b)(c)(d)(e)	<b>16.</b> (a)(b)(c)(d)(e)
	<b>17.</b> (a)(b)(c)(d)(e)	<b>18.</b> (a)(b)(c)(d)(e)	<b>19.</b> (a)(b)(c)(d)(e)	<b>20.</b> (a)(b)(c)(d)(e)	<b>21.</b> (a)(b)(c)(d)(e)
	<b>22.</b> (a)(b)(c)(d)(e)	<b>23.</b> (a)(b)(c)(d)(e)	<b>24.</b> (a)(b)(c)(d)(e)	<b>25.</b> (a)(b)(c)(d)(e)	

26. Market penetration connotes  
 (a) covering a wider area  
 (b) entering sellers' houses  
 (c) covering all shops and business houses  
 (d) All of these  
 (e) None of these
27. Lead generation means \_\_\_\_\_.  
 (a) Tips for selling tactics  
 (b) Tips for more efficient production  
 (c) Develop leaders  
 (d) sources for prospective clients  
 (e) None of these
28. Marketing orientation focuses on \_\_\_\_\_?  
 (a) Customers  
 (b) Suppliers  
 (c) Competitors  
 (d) Employees  
 (e) All of the above
29. 'Push' marketing style requires \_\_\_\_\_.  
 (a) Proper planning  
 (b) Good pushing strength  
 (c) Teamwork  
 (d) Ability to identify products  
 (e) Aggressive marketing
30. CRM (Customer Relationship Management) is \_\_\_\_\_.  
 (a) A pre-sales activity  
 (b) A tool for lead generation  
 (c) An on going daily activity  
 (d) Task of a DSA  
 (e) Customer complaint cell
31. The three step process within marketing segmentation includes:  
 (a) Segmentation, differentiation and positioning.  
 (b) Targeting, Segmentation, and Positioning.  
 (c) Segmentation, Targeting and Positioning.  
 (d) Positioning, Mass Marketing and Segmentation.  
 (e) None of these
32. Product positioning is about:  
 (a) Developing a product.  
 (b) Developing a perception of the product/service.  
 (c) Product quality decisions.  
 (d) The perception of the product from the view of the competitors.  
 (e) None of these
33. Mass marketing is about:  
 (a) Aiming a product at one particular segment.  
 (b) Developing products for different segments.  
 (c) Going for a global marketing strategy.  
 (d) Aiming the product at the entire market.  
 (e) None of these
34. The first step in the market segmentation process is to:  
 (a) Position offer in the market.  
 (b) Define the market.  
 (c) Target the market.  
 (d) Segment the market.  
 (e) None of these
35. The Coca Cola Company markets a wide range of different beverage products including soft drinks, bottled water, juices and sports drinks. Each product appeals to a different segment. This is an example of which type of market offering?  
 (a) Undifferentiated marketing  
 (b) Differentiated marketing  
 (c) Targeted marketing  
 (d) Individual Marketing  
 (e) None of these
36. Which of the following 'market definitions' could be used by Mercedes Benz in describing its market?  
 (a) The motor car market.  
 (b) The luxury car market.  
 (c) The transportation market.  
 (d) All of the above.  
 (e) None of these
37. Which one of the following is not a geodemographic basis for market segmentation?  
 (a) Marital status.  
 (b) Personality.  
 (c) Occupation.  
 (d) Postcode.  
 (e) None of these
38. Which of the following could be used as a basis for segmenting business-to-business markets?  
 (a) Frequency of purchase  
 (b) Number of employees  
 (c) Industry type  
 (d) All of the above  
 (e) None of these

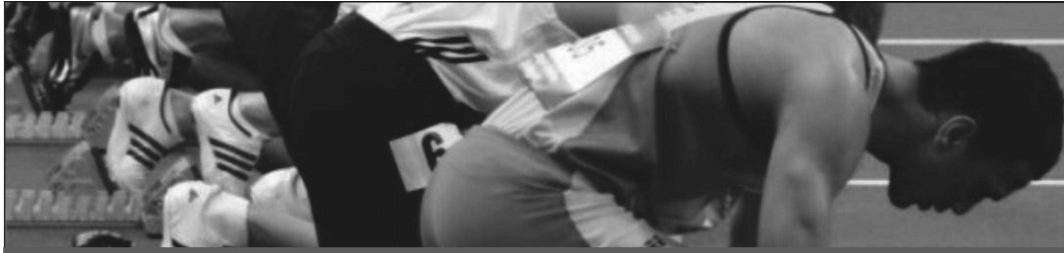
**RESPONSE  
GRID**

26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)  
 31. (a)(b)(c)(d)(e) 32. (a)(b)(c)(d)(e) 33. (a)(b)(c)(d)(e) 34. (a)(b)(c)(d)(e) 35. (a)(b)(c)(d)(e)  
 36. (a)(b)(c)(d)(e) 37. (a)(b)(c)(d)(e) 38. (a)(b)(c)(d)(e)

39. Which of the following should not a lifestyle segmentation factor?
  - (a) An interest in sports.
  - (b) Stamp collecting.
  - (c) The buyers interest in cars.
  - (d) The growth rate of the segment.
  - (e) None of these
40. Market positioning involves ...
  - (a) Designing, communicating and delivering value.
  - (b) Creating an appropriate image of your offering in the minds of customers.
  - (c) Understanding the unique value propositions of your offering.
  - (d) All of the above.
  - (e) None of these
41. Which of the following is not a commonly-used age segment?
  - (a) Retirees
  - (b) Generation X
  - (c) Achievers
  - (d) Baby boomers
  - (e) None of these
42. Which of the following is not a demographic characteristic?
  - (a) Gender-male.
  - (b) Age-21.
  - (c) Marital status-single.
  - (d) Personality - anxious.
  - (e) None of these
43. Marketers segment markets to achieve which of the following objectives?
  - (a) To create an offer that best fits the desires of the groups that exist in the market.
  - (b) To identify the most appropriate media for advertising.
  - (c) To better understand their target segments.
  - (d) All of the above
  - (e) None of these
44. The customer market division done on the basis of 'compulsive, ambitious and outgoing customers' classified as
  - (a) geographic segmentation
  - (b) demographic segmentation
  - (c) psychographic segmentation
  - (d) behavioral segmentation
  - (e) None of these
45. In positioning statement, the first thing that must be stated is
  - (a) target segment
  - (b) market segmentation
  - (c) differentiation
  - (d) positioning
  - (e) None of these
46. The company marketing mix that target market segments very broadly is called
  - (a) mass marketing
  - (b) segmented marketing
  - (c) niche marketing
  - (d) micromarketing
  - (e) None of these
47. The situation in which the company targets whole market with one similar offer is called as
  - (a) target marketing
  - (b) segmented marketing
  - (c) niche marketing
  - (d) micromarketing
  - (e) None of these
48. The positioning statement first states the
  - (a) product membership in category
  - (b) points of priority
  - (c) points of differences
  - (d) brands superiority
  - (e) None of these
49. The process in which firm tries to expand the market for mature brand by focusing on number of brand users and usage rate per user is known as
  - (a) Market modification
  - (b) Product modification
  - (c) Marketing program modification
  - (d) Market Segmentation
  - (e) None of these
50. The branding that focuses on deep metaphor related to stories, memories and associations is
  - (a) Detailed branding
  - (b) Potential branding
  - (c) Narrative branding
  - (d) Direct Branding
  - (e) None of these

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 39. (a)(b)(c)(d)(e) | 40. (a)(b)(c)(d)(e) | 41. (a)(b)(c)(d)(e) | 42. (a)(b)(c)(d)(e) | 43. (a)(b)(c)(d)(e) |
| 44. (a)(b)(c)(d)(e) | 45. (a)(b)(c)(d)(e) | 46. (a)(b)(c)(d)(e) | 47. (a)(b)(c)(d)(e) | 48. (a)(b)(c)(d)(e) |
| 49. (a)(b)(c)(d)(e) | 50. (a)(b)(c)(d)(e) |                     |                     |                     |



101 SPEED TEST

99

**MODERN MARKETING / MARKETING IN BANKING INDUSTRY**

Max. Marks : 50

No. of Qs. 50

Time : 30 min.

Date : ...../...../.....

1. Modern marketing includes
  - (a) publicity on internet
  - (b) advertisement on internet
  - (c) Bulk emails
  - (d) telemarketing
  - (e) All of these
2. e-marketing is same as \_\_\_\_\_.
  - (a) virtual marketing
  - (b) digital marketing
  - (c) real time marketing
  - (d) All of these
  - (e) None of these
3. Digital marketing is selling \_\_\_\_\_.
  - (a) digital goods
  - (b) calculators
  - (c) through internet
  - (d) All of these
  - (e) None of these
4. Online Marketing is useful for \_\_\_\_\_.
  - (a) Selling Old Products
  - (b) Sending e-mails
  - (c) Increasing production
  - (d) Additional job opportunities
  - (e) Higher expenses
5. Online value proposition should \_\_\_\_\_.
  - (a) Be communicated to site visitors and in all marketing communications
  - (b) Be a clear differentiator from online competitors
  - (c) Target market segment(s) that the proposition will appeal to
  - (d) Given financial back up
  - (e) All of the above
6. Achieving marketing objectives through use of electronic communications technology is \_\_\_\_\_.
  - (a) E-marketing
  - (b) E-business
  - (c) Internet marketing
  - (d) E-commerce
  - (e) None of the above
7. Direct online contribution effectiveness is the \_\_\_\_\_.
  - (a) Reach of audience volume of a site
  - (b) Proportion of sales influenced by the web site
  - (c) Proportion of business turnover achieved by e-commerce transactions
  - (d) First and third option above
  - (e) None of the above
8. Modern marketing EXCLUDES \_\_\_\_\_.
  - (a) Digital marketing
  - (b) Tele-marketing
  - (c) Door-to-door marketing
  - (d) E-mail solicitation
  - (e) None of these
9. Web marketing involves
  - (a) Selling web cameras
  - (b) Web advertisements
  - (c) e-mail chatting
  - (d) Browsing the web
  - (e) Door-to-door canvassing
10. Online Marketing is mostly useful for marketing of
  - (a) saving accounts
  - (b) credit cards
  - (c) home loans
  - (d) NRI deposits
  - (e) business accounts
11. The best promotional tool in any marketing is \_\_\_\_\_.
  - (a) Pamphlets
  - (b) Newsletters
  - (c) Word of mouth publicity
  - (d) Regional Advertisement
  - (e) Viral marketing

**RESPONSE  
GRID**

- |     |                 |    |                 |    |                 |    |                 |     |                 |
|-----|-----------------|----|-----------------|----|-----------------|----|-----------------|-----|-----------------|
| 1.  | (a)(b)(c)(d)(e) | 2. | (a)(b)(c)(d)(e) | 3. | (a)(b)(c)(d)(e) | 4. | (a)(b)(c)(d)(e) | 5.  | (a)(b)(c)(d)(e) |
| 6.  | (a)(b)(c)(d)(e) | 7. | (a)(b)(c)(d)(e) | 8. | (a)(b)(c)(d)(e) | 9. | (a)(b)(c)(d)(e) | 10. | (a)(b)(c)(d)(e) |
| 11. | (a)(b)(c)(d)(e) |    |                 |    |                 |    |                 |     |                 |

12. Internet marketers are using \_\_\_\_\_ as a form of word of mouth, or word of mouse, to draw attention to their sites.
  - (a) event marketing
  - (b) subliminal marketing
  - (c) viral marketing
  - (d) place marketing
  - (e) public relations
13. The major marketing developments as we enter the new millennium can be summed up in a single theme:
  - (a) innovation
  - (b) the Internet
  - (c) virtuality
  - (d) connectedness
  - (e) None of these
14. Today marketing is:
  - (a) Product driven
  - (b) Services driven
  - (c) Improvement of bottom line (Profitability)
  - (d) Cost conscious
  - (e) Customer driven market
15. Modern marketing calls for more than developing a good product, pricing it attractively, and making it accessible. Companies must also \_\_\_\_\_ with present and potential stakeholders, and the general public.
  - (a) attract
  - (b) reach
  - (c) relate to
  - (d) advertise to
  - (e) communicate
16. In today's changing banking scenario, aggressive promotion of business is necessary where the competition exists on
  - (a) branch up-keep
  - (b) expeditious service
  - (c) use of advanced digital technology
  - (d) good customer service
  - (e) All of these
17. Bank marketing means
  - (a) selling by banks
  - (b) buying by banks
  - (c) merger of banks
  - (d) selling bank's products and services
  - (e) selling products in banks
18. Marketing is not required in \_\_\_\_\_.
  - (a) Selling Credit/ Debit Cards
  - (b) Net Banking
  - (c) Corporate Loans
  - (d) Retail Loans
  - (e) All of these
19. Marketing of Internet Banking means
  - (a) meeting of Banks on the net
  - (b) net practice
  - (c) marketing usage of Banking transactions through internet
  - (d) transactions with foreign banks
  - (e) All of the above
20. Marketing in banks is
  - (a) a one-day function
  - (b) a one-man function
  - (c) a one-off affair
  - (d) All of these
  - (e) None of these
21. Target group for marketing Internet Banking is \_\_\_\_\_.
  - (a) all customers
  - (b) all literate customers
  - (c) all computer literate customers
  - (d) only borrowers
  - (e) All of these
22. Digital Banking is available through \_\_\_\_\_.
  - (a) Mobile phones
  - (b) Internet
  - (c) Telephones
  - (d) All of these
  - (e) None of these
23. Bancassurance can be sold to \_\_\_\_\_.
  - (a) Banks
  - (b) Insurance companies
  - (c) Insurance agents
  - (d) Bank customers
  - (e) All of the above
24. Difference between Direct and indirect Bank Marketing is
  - (a) Direct Marketing is to Bank's employees. Indirect is to outsiders
  - (b) Direct Marketing is to outsiders. Indirect is to employees
  - (c) Direct Marketing is to Bank's owners. Indirect is to outsiders
  - (d) Direct Marketing is to other Bank's employees. Indirect is to outsiders
  - (e) None of these
25. Target market for Home Loans is
  - (a) builders
  - (b) housing societies
  - (c) agriculturists
  - (d) All of these
  - (e) None of these

<b>RESPONSE GRID</b>	<b>12.</b> (a)(b)(c)(d)(e) <b>13.</b> (a)(b)(c)(d)(e) <b>14.</b> (a)(b)(c)(d)(e) <b>15.</b> (a)(b)(c)(d)(e) <b>16.</b> (a)(b)(c)(d)(e)
	<b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e) <b>21.</b> (a)(b)(c)(d)(e)
	<b>22.</b> (a)(b)(c)(d)(e) <b>23.</b> (a)(b)(c)(d)(e) <b>24.</b> (a)(b)(c)(d)(e) <b>25.</b> (a)(b)(c)(d)(e)



26. The USP of a Credit Card is  
 (a) cashless operations  
 (b) only for HNIs  
 (c) only for men  
 (d) only for employed persons  
 (e) transactions through cheque book
27. EMI can be a marketing tool if  
 (a) EMI is increasing  
 (b) It is very high  
 (c) It is very low  
 (d) EMI has no impact on marketing  
 (e) EMI is a flat rate
28. Banks sell insurance for  
 (a) increasing deposits  
 (b) increasing loans  
 (c) increasing clients  
 (d) earning more profits  
 (e) taking over insurance companies
29. Savings Accounts can be opened by \_\_\_\_\_  
 (a) All individuals fulfilling KYC norms  
 (b) All tax payers only  
 (c) All individuals above the age of 18  
 (d) All businessmen only  
 (e) All students below the age of 18
30. A short term loan is repayable within \_\_\_\_\_  
 (a) 20 years  
 (b) 3 years  
 (c) As per the borrowers' wish  
 (d) As per the guarantor's wish  
 (e) There is no need to repay short term loans
31. The purchase of customer information from outside firms and vendors is classified as  
 (a) marketing intelligence system  
 (b) market information system  
 (c) market development system  
 (d) market record system  
 (e) None of these
32. The public blogs and customer complaint sites are examples of  
 (a) marketing management  
 (b) building marketing records  
 (c) field work  
 (d) marketing intelligence on internet  
 (e) None of these
33. The combo sites for product reviews and expert opinions are classified as  
 (a) marketing intelligence on internet  
 (b) field work  
 (c) marketing management  
 (d) building marketing records  
 (e) None of these
34. The company's order-to-payment cycle is part of  
 (a) internal records  
 (b) external records  
 (c) private records  
 (d) public records  
 (e) None of these
35. Motivating retailers and collection of intelligence by hiring external experts are part of  
 (a) market development system  
 (b) market record system  
 (c) marketing intelligence system  
 (d) market information system  
 (e) None of these
36. Internet Banking can be popularized by way of:  
 (a) Reduced prices  
 (b) Higher prices  
 (c) Wide Area Network  
 (d) Better technology  
 (e) More ATMs
37. The modern marketing concept asserts that 'marketing' starts with the product idea and ends with:  
 (a) Production of Quality Product  
 (b) Advertisement Campaign  
 (c) Customer Satisfaction  
 (d) Sale of the Product  
 (e) Exchange of Money
38. Online Marketing is mostly useful for marketing of  
 (a) saving accounts  
 (b) credit cards  
 (c) home loans  
 (d) NRI deposits  
 (e) business accounts

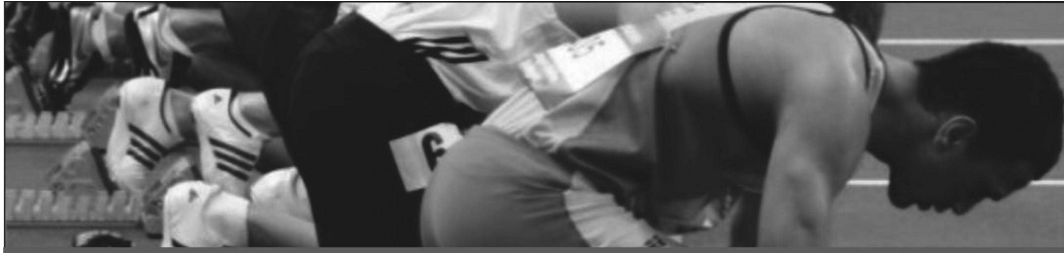
**RESPONSE  
GRID**

26. (a)(b)(c)(d)(e) 27. (a)(b)(c)(d)(e) 28. (a)(b)(c)(d)(e) 29. (a)(b)(c)(d)(e) 30. (a)(b)(c)(d)(e)  
 31. (a)(b)(c)(d)(e) 32. (a)(b)(c)(d)(e) 33. (a)(b)(c)(d)(e) 34. (a)(b)(c)(d)(e) 35. (a)(b)(c)(d)(e)  
 36. (a)(b)(c)(d)(e) 37. (a)(b)(c)(d)(e) 38. (a)(b)(c)(d)(e)

- 39. Digital Marketing is similar to
  - (a) online marketing
  - (b) cold calling
  - (c) web designing
  - (d) market fore-cast
  - (e) outdoor marketing
- 40. Telemarketing involves—
  - (a) good communication skills
  - (b) high level of motivation
  - (c) door-to-door campaigns
  - (d) event management
  - (e) All of these
- 41. Online marketing is—
  - (a) same as face-to-face marketing
  - (b) easier than traditional marketing
  - (c) boring as customers are not visible
  - (d) voluminous task
  - (e) None of these
- 42. In modern day marketing, the benefits of selling extend to——
  - (a) Only products and services
  - (b) Only after sales services
  - (c) Lifelong relationship with the buyer
  - (d) All of the above
  - (e) None of the above
- 43. Networking makes marketing
  - (a) very difficult
  - (b) very cumbersome
  - (c) easy to handle
  - (d) has no role in marketing
  - (e) None of these
- 44. The target group for marketing of internet banking is
  - (a) all customers
  - (b) all literate customers
  - (c) all computer literate customers
  - (d) only borrowers
  - (e) All of these
- 45. Web marketing involves—
  - (a) Selling web cameras
  - (b) We advertisements
  - (c) e-mail chatting
  - (d) Browing the web
  - (e) None of these
- 46. The process of discovering patterns and relationships using the available customers data to reveal what customers want and how they act is known as
  - (a) Data ware housing
  - (b) Data base
  - (c) Data Mining
  - (d) Data Building
  - (e) Data Matching
- 47. KYC means—
  - (a) keep your customers tool
  - (b) keep your credit card
  - (c) know your credits
  - (d) Know your customers
  - (e) None of these
- 48. E-Marketing is the same as
  - (a) virtual marketing
  - (b) digital marketing
  - (c) real time marketing
  - (d) all of these
  - (e) None of these
- 49. Modern method of marketing include?
  - (a) Publicity on the net
  - (b) Advertisement on the net
  - (c) Soliciting business through e-mails
  - (d) Both 1 and 2
  - (e) All of the above
- 50. What is M-marketing?
  - (a) Mobile Marketing
  - (b) Management Marketing
  - (c) Model Marketing
  - (d) Modern Marketing
  - (e) Mind Marketing

**RESPONSE  
GRID**

39. (a)(b)(c)(d)(e) 40. (a)(b)(c)(d)(e) 41. (a)(b)(c)(d)(e) 42. (a)(b)(c)(d)(e) 43. (a)(b)(c)(d)(e)  
44. (a)(b)(c)(d)(e) 45. (a)(b)(c)(d)(e) 46. (a)(b)(c)(d)(e) 47. (a)(b)(c)(d)(e) 48. (a)(b)(c)(d)(e)  
49. (a)(b)(c)(d)(e) 50. (a)(b)(c)(d)(e)



**101 SPEED TEST**

**100**

**CURRENT AFFAIRS AND BANKING**

**Max. Marks : 50**

**No. of Qs. 50**

**Time : 30 min.**

**Date : ...../...../.....**

1. Amaravathi, which is named as the new capital of Andhra Pradesh was capital of which dynasty in the ancient times?
  - (a) Pandya
  - (b) Pallava
  - (c) Satvahana
  - (d) Shunga
  - (e) None of these
2. Who has been appointed as India's first Cyber Security Chief?
  - (a) Shekhar Basu
  - (b) Deepak Gupta
  - (c) U. K Sinha
  - (d) Gulshan Rai
  - (e) None of these
3. Which of the following statements are correct?
  - (1) Union Ministry of Women and Child Development (WCD) is the nodal authority to disburse funds from Nirbhaya Fund to ministries/departments approaching it for various schemes/proposals.
  - (2) Union government has allocated Rs. 3000 crore to Nirbhaya Fund for the financial year 2015-16.
  - (3) Nirbhaya Fund is administered by Department of Economic Affairs.

**Codes :**

  - (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) All of these
  - (e) None of these
4. Which of the following statements are true regarding 'Give It Up' Movement?
  - (1) It has been launched by the Ministry of Petroleum and Natural Gas.
  - (2) It was launched in Maharashtra.
  - (3) It appeals to the rich people to voluntarily give-up their subsidy amount on LPG cylinders.

**Codes :**

  - (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) All of these
  - (e) None of these
5. Which of the following statements are correct?
  - (1) FAME-India Scheme aims to electrify all the households by 2020.
  - (2) It is a part of the National Mission for Electric Mobility launched in 2013.
  - (3) Here, FAME stands for Faster Adoption and Manufacturing of Hybrid and Electric Vehicles.

**Codes**

  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Both 1 and 3
  - (e) None of these
6. What was the global tagline of the Earth Hour 2015, which was observed globally on 28 March 2015 from 8:30 pm to 9:30 pm local time?
  - (a) Beyond the Hour
  - (b) Change Climate Change
  - (c) Dark city, bright idea
  - (d) We've turned the lights out. Now it's your turn - Earth Hour
  - (e) None of these
7. Union Ministry of Health and Welfare launched Media Campaign for Mission Indradhanush. Consider the following facts regarding this:
  - (1) Mission Indradhanush aims to increase the percentage of immunization to 4-5 percent.
  - (2) Mission Indradhanush aims vaccinate all children by 2020 against seven preventable diseases viz., diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B.
  - (3) It was launched by Union Health Minister J.P. Nadda.

Which is/are correct?

  - (a) Only I
  - (b) Only II
  - (c) Both I and II
  - (d) All 1, 2, 3
  - (e) None of these
8. Who won the Best Actress Award of the National Film Awards?
  - (a) Priyanka Chopra
  - (b) Kangana Ranaut
  - (c) Kareena Kapoor
  - (d) Madhuri Dixit
  - (e) None of these
9. Who among the following personalities have been included in 2015 Fortune magazine's "50 greatest leaders" list?
  - (1) Sonia Gandhi
  - (2) Kailash Satyarthi
  - (3) Narendra Modi
  - (4) Raj Panjabi

**Codes**

  - (a) 1, 2 and 3 only
  - (b) 2, 3 and 4 only
  - (c) 1 and 4 only
  - (d) All of these
  - (e) None of these
10. Which of the following categories of National Film Awards 2014 have been correctly paired with the recipients?
 

(1) Best Actor	Bobby Simhaa
(2) Best Actress	Kangana Ranaut
(3) Best Film on Social Issues	Pagdi- The Honour
(4) Best Feature Film	Court

**Codes :**

  - (a) 1 and 3 only
  - (b) 3 and 4 only
  - (c) 2 and 4 only
  - (d) 1, 2 and 3 only
  - (e) None of these

**RESPONSE GRID**

- |                    |                    |                    |                    |                     |
|--------------------|--------------------|--------------------|--------------------|---------------------|
| 1. (a)(b)(c)(d)(e) | 2. (a)(b)(c)(d)(e) | 3. (a)(b)(c)(d)(e) | 4. (a)(b)(c)(d)(e) | 5. (a)(b)(c)(d)(e)  |
| 6. (a)(b)(c)(d)(e) | 7. (a)(b)(c)(d)(e) | 8. (a)(b)(c)(d)(e) | 9. (a)(b)(c)(d)(e) | 10. (a)(b)(c)(d)(e) |

11. Which amongst the following countries has won Women in Parliament Award by World Economic Forum?
  - (a) Bangladesh
  - (b) Bhutan
  - (c) Malaysia
  - (d) Indonesia
  - (e) None of these
12. Ashu Suyash has been appointed as the Managing Director of
  - (a) SEBI
  - (b) BSE
  - (c) CRISIL
  - (d) CIBIL
  - (e) None of these
13. What is the purpose of establishing Kaya Kulp Council?
  - (a) To give recommendations to improve the Indian Railways
  - (b) To give recommendations to improve Air India
  - (c) To give recommendations to improve to working of National Highway Authority of India
  - (d) To give recommendations to enhance the role of waterways in transportation
  - (e) None of these
14. Which of the following statements are correct regarding Pradhan Mantri Kaushal Vikas Yojana (PMKVY)?
  - (1) It has been launched by the Ministry of Human Resource Development.
  - (2) The scheme will be implemented with an outlay of 1, 500 crore rupees.
  - (3) Centre and state will contribute the funds in the ratio of 75 : 25.

**Codes :**

- (a) 1 only
  - (b) 2 only
  - (c) 1 and 2 only
  - (d) 1 and 3 only
  - (e) None of these
15. Which of the following statements are correct regarding Astra missile?
    - (1) It is an air-to-air missile indigenously built by DRDO.
    - (2) It can intercept target aircraft at supersonic speed.
    - (3) It uses an indigenous liquid fuel propellant.

**Codes**

- (a) 1 only
  - (b) 2 only
  - (c) 1 and 2 only
  - (d) 1 and 3 only
  - (e) None of these
16. Which of the following statements are correct regarding Project 17A of the Indian government?
    - (1) The project is aimed at building country's most advanced fighter planes
    - (2) Under the project, Advanced RADAR system will be installed in order to counter stealth technology during war or any other such situation.
    - (3) India has signed for joint programmes with France and Russia to accomplish the project.

**Codes**

- (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) Only 1
  - (e) None of these
17. Rajya Sabha unanimously passed the Constitution (Scheduled Castes) Orders Amendment Bill 2015 by a voice vote. The bill:
    - (1) Seeks to modify the list of Scheduled Castes in three states- Haryana, Karnataka, Odisha, and one Union Territory- Dadra and Nagar Haveli
    - (2) Amends the Constitution (Scheduled Castes) Order 1950 and the Constitution (Dadra and Nagar Haveli) Scheduled Castes Order 1962.
    - (3) The bill was introduced in provisions of article 342 of the constitution.

- (a) Only 1
- (b) Only 2
- (c) Both 1 and 2
- (d) Only 3
- (e) None of these

**Which statement(s) is/are correct?**

18. Union Government launched an online grievances monitoring system called MADAD to redress consular grievances. In this context, consider the following statements:
  - (1) MADAD is a joint effort of Ministry of External Affairs (MEA) and Ministry of Overseas Indian Affairs (MOIA)
  - (2) The tagline of MADAD is Because You Are Us
  - (3) The portal MADAD employs a colour-coded system of red-amber-green pattern to monitor complaints and grievances

**Which statement(s) is/are correct?**

- (a) 1 and 2
  - (b) 2 and 3
  - (c) 1 and 3
  - (d) All of the above
  - (e) None of these
19. Consider the following statements in the context of Railway Budget 2015-16:
    - (1) Total plan outlay of Railway Budget 2015-16 is pegged at 100011 crore rupees, an increase of 52 percent over Revised Estimates of 2014-15.
    - (2) Plan size for 2014-15 increased from 65445 crore rupees in the Budgeted Estimates to 65798 crore rupees in the Revised Estimates.
    - (3) Plan size for 2014-15 increased from 65445 crore rupees in the Budgeted Estimates to 65998 crore rupees.

**Which statement(s) is/are correct?**

- (a) Only 1
  - (b) Only 2
  - (c) Both 1 and 2
  - (d) Only 3
  - (e) None of these
20. Who among the following has been recently inducted into the ICC Cricket Hall of Fame?
    - (a) Sachin Tendulkar
    - (b) Sourav Ganguly
    - (c) Anil Kumble
    - (d) Rahul Dravid
    - (e) None of these

**Which statement(s) is/are correct?**

21. Which of the following statements are true regarding e-Biz portal launched by the Indian government recently?
  - (1) It has been launched by the Finance Ministry.
  - (2) It will provide single window facility for business transactions and other formalities.
  - (3) Initially, the portal will be launched in 10 pilot states.

**Codes**

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) All of these
- (e) None of these

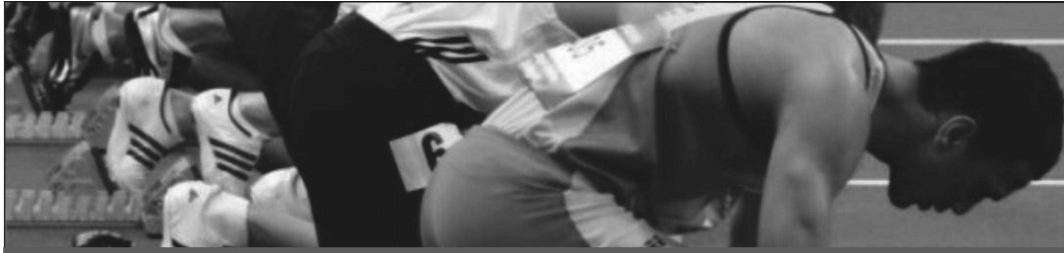
<b>RESPONSE GRID</b>	<b>11.</b> (a)(b)(c)(d)(e) <b>12.</b> (a)(b)(c)(d)(e) <b>13.</b> (a)(b)(c)(d)(e) <b>14.</b> (a)(b)(c)(d)(e) <b>15.</b> (a)(b)(c)(d)(e)
	<b>16.</b> (a)(b)(c)(d)(e) <b>17.</b> (a)(b)(c)(d)(e) <b>18.</b> (a)(b)(c)(d)(e) <b>19.</b> (a)(b)(c)(d)(e) <b>20.</b> (a)(b)(c)(d)(e)
	<b>21.</b> (a)(b)(c)(d)(e)

22. Which among the following is the theme of the World Health Day-2015?  
 (a) Food Safety (b) Aging and Health  
 (c) Water Safety (d) Small Bite Big Threat  
 (e) None of these
23. Who was defeated by Saina Nehwal to win her maiden India Open Title?  
 (a) Ratchanok Intanon (b) Yui Hashimoto  
 (c) Carolina Marin (d) Li Xuerui  
 (e) None of these
24. Who has won the Player of the tournament award in the 2015 Cricket World Cup?  
 (a) Mitchell Starc (b) James Faulkner  
 (c) Trent Boult (d) Martin Guptill  
 (e) None of these
25. The winner of 2015 Malaysian Grand Prix is \_\_\_\_?  
 (a) Sebastian Vettel (b) Kimi Raikkonen  
 (c) Lewis Hamilton (d) Jenson Button  
 (e) None of these
26. The Reserve Bank of India (RBI) relaxed provisioning rules against bad loans by allowing banks to set aside up to 50% of floating provisions. What was the present rule for the same?  
 (a) 35% (b) 40%  
 (c) 45% (d) 50%  
 (e) None of these
27. Indian Railways launched its RuPay pre-paid debit card service for the benefit of railway passengers. Which PSU bank is collaborating with the National Payment Corporation of India (NPCI) and IRCTC in this service?  
 (a) Federal Bank  
 (b) SBI  
 (c) Union Bank of India (UBI)  
 (d) Bank of baroda  
 (e) None of these
28. The SEBI approved guidelines to govern international financial services centres (IFSC). Which centre is expected to be India's first such IFSC?  
 (a) Gujarat International Finance Tec-City  
 (b) Rajasthan International Finance Tec-City  
 (c) Uttar Pradesh International Finance Tec-City  
 (d) Madhya Pradesh International Finance Tec-City  
 (e) None of these
29. What was the gross non-performing assets (NPAs) of public sector banks as on December 2014 as disclosed by the Reserve Bank of India (RBI) recently?  
 (a) ` 2,50,531 crore (b) ` 2,60,531 crore  
 (c) ` 3,00,000 crore (d) ` 3,50,000 crore  
 (e) None of these
30. Which company recently became the private company in the Indian life insurance industry to cross ` 1 lakh crore mark in Assets Under Management (AUM) as announced during March 2015?  
 (a) Bharati AXA Insurance Company  
 (b) IFFCO Tokio  
 (c) ICICI Prudential Life Insurance Company  
 (d) L&T Insurance Company  
 (e) None of these
31. What is the new Repo rate ?  
 (a) 7% (b) 7.5%  
 (c) 8% (d) 8.5%  
 (e) None of these
32. In a unique experiment State Bank of India (SBI) has recently initiated a new loan collection model that allows borrowers to pay back on a daily instalment basis. This first-of-its-kind loan product offering has been made to which entity ?  
 (a) Olacabs (b) India Mart  
 (c) Yo Cab (d) Air Cab  
 (e) None of these
33. The State Bank of India (SBI) made how much commitment for clean energy generation (renewable energy) as announced by it at Re-Invest India 2015.  
 (a) ` 75,000 crore (b) ` 85,000 crore  
 (c) ` 65,000 crore (d) ` 70,000 crore  
 (e) None of these
34. The RBI deadline for applying for the payments banks ended. Which companies/groups are the prominent bidders for the payments banks which will offer services such as remittances and deposits?  
 (1) Reliance Industries Limited  
 (2) Bharti Airtel  
 (3) PayTM and Oxigen  
 (4) MTS  
 (5) None of these  
 Which of the above statements is/are correct  
 (a) 1 and 2 only  
 (b) 2 and 3 Only  
 (c) 1, 2 and 3 only  
 (d) All of the above  
 (e) None of these
35. Which Indian bank has become the first in India to have developed its own economic index on lines of HSBC India Services Purchasing Managers' Index (PMI) and HSBC India Manufacturing PMI?  
 (a) State Bank of India (SBI)  
 (b) ICICI  
 (c) Corporation Bank  
 (d) Bank of baroda  
 (e) None of these

36. Which of the following statements are correct regarding Warehousing Corporations (Amendment) Bill, 2015?
- It seeks to give status of 'Maharatna' Public Sector Enterprise to Central Warehousing Corporation (CWC)
  - The central government will become the financial guarantor once the bill is passed.
  - It seeks to give status of 'Navratna Public' sector enterprise to Central Warehousing Corporation (CWE)
- Codes:**
- 1 only
  - 2 only
  - Both 1 and 2
  - Both 2 & 3
  - None of these
37. Which of the following are the criteria adopted by the central government for capital infusion into banks?
- Return on Assets for last three years
  - Return on Credits for last financial year
  - Return on Equity for last financial year
  - Percentage increase in number of branches in rural areas
- Codes:**
- 1 and 3 only
  - 1, 2 and 4 only
  - 3 and 4 only
  - All of these
  - None of these
38. Which of the following statements are correct regarding Foreign Trade Policy 2015-2020?
- e-Commerce exports of handloom products will get the benefit of Merchandise Exports from India Scheme (MEIS).
  - The benefits of Merchandise Exports from India Scheme (MEIS) and Services Exports from India Scheme (SEIS) will be extended to units located in Special Economic Zones.
  - Duty Withdrawal Scheme will be extended to National Investment and Manufacturing Zones (NIMZ).
- Codes :**
- 1 and 2 only
  - 1 and 3 only
  - 2 and 3 only
  - All of these
  - None of these
39. Union Government and the Reserve Bank of India (RBI) have signed an agreement to lower down inflation rate. What is the target of inflation rate by January 2016?
- 4%
  - 5%
  - 6%
  - 7%
  - None of these
40. Recently, India has signed loan agreement of \$50 million with Asian Development Bank (ADB) to boost power generation capacity in which of the following states?
- Arunachal Pradesh
  - Tripura
  - Assam
  - Sikkim
  - None of these
41. On how many stages Mudra Bank will provide financing ?
- 5 Stages
  - 6 Stages
  - 4 Stages
  - 3 Stages
  - None of these
42. Name the person who headed the 14th Finance Commission the recommendations of which were accepted by the Union Government in the third week of February 2015?
- K. C. Pant
  - YV Reddy
  - Vijay L. Kelkar
  - Rangarajan
  - None of these
43. Who among the following is the chairman of the recently constituted 7th Pay Commission?
- Justice Ashok Kumar Mathur
  - Dr. Rathin Roy
  - Justice B.N.Srikrishna
  - C. Rangarajan
  - None of these
44. What is the new rate of Service Tax as per Budget 2015-16?
- 13%
  - 14%
  - 13.5%
  - 14.5%
  - None of these
45. What type of tax has been abolished with a CESS in this budget 2015-16?
- Entertainment Tax
  - Income Tax
  - Transaction Tax
  - Wealth Tax
  - None of these
46. Which state has achieved 100 percent success in implementing ambitious Pradhan Mantri Jan Dhan Yojna?
- Gujarat
  - Assam
  - Kerala
  - Bihar
  - None of these
47. Name the scheme that has been launched by the government for redressal of grievances of consumers relating to pricing and availability of medicines?
- Ausadhi Samadhan Scheme
  - Pharma Redressal Scheme
  - Pharma Jan Samadhan Scheme
  - Ausadhi Redressal Scheme
  - None of these
48. Name the commission that has recommended increasing state's share in the centre's tax revenue to 42% from current 32%?
- Y.V.Reddy Commission
  - Justice C Rangarajan Commission
  - Bajpai Panel
  - Bimal Jalan Committee
  - None of these
49. How many Central Public Sector Enterprises (CPSEs) have been decided to be closed down by the Union Cabinet?
- 10
  - 9
  - 8
  - 7
  - None of these
50. The Reserve Bank of India (RBI) has revised regulations for \_\_\_\_\_ lenders by directing them to get themselves rated by March 2016.
- Non-Banking finance
  - Core-banking
  - Stock
  - Home based
  - None of these

**RESPONSE  
GRID**

- |                     |                     |                     |                     |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 36. (a)(b)(c)(d)(e) | 37. (a)(b)(c)(d)(e) | 38. (a)(b)(c)(d)(e) | 39. (a)(b)(c)(d)(e) | 40. (a)(b)(c)(d)(e) |
| 41. (a)(b)(c)(d)(e) | 42. (a)(b)(c)(d)(e) | 43. (a)(b)(c)(d)(e) | 44. (a)(b)(c)(d)(e) | 45. (a)(b)(c)(d)(e) |
| 46. (a)(b)(c)(d)(e) | 47. (a)(b)(c)(d)(e) | 48. (a)(b)(c)(d)(e) | 49. (a)(b)(c)(d)(e) | 50. (a)(b)(c)(d)(e) |



101 SPEED TEST

101

**MEGA GENERAL KNOWLEDGE TEST**

Max. Marks : 100

No. of Qs. 100

Time : 50 min.

Date : ...../...../.....

1. Which of the following best defines a floating-rate bond?
  - (a) A bond with a fixed interest rate and has better yield than varying interest rate bond
  - (b) A bond with a fixed interest rate and has lower yield than varying interest rate bond
  - (c) A bond with a varying interest rate and has better yield than fixed interest rate bond
  - (d) A bond with a varying interest rate and has lower yield than fixed interest rate bond
  - (e) None of these
2. Which among the following regulate the commodity markets in India?
  1. RBI
  2. SEBI
  3. Forward Market CommissionChoose the correct option from the codes given below:
  - (a) Only 1 & 2
  - (b) Only 2 & 3
  - (c) Only 1 & 3
  - (d) Only 3
  - (e) None of these
3. The credit policy of a bank does not consists of?
  - (a) Lending policies
  - (b) Quality control
  - (c) Loan product mix
  - (d) Advertising of loan products
  - (e) None of these
4. The difference between the outflow and inflow of foreign currency is known as \_\_\_\_:
  - (a) Foreign Exchange Reserves
  - (b) Current Account Deficit
  - (c) Fiscal Deficit
  - (d) Balance of Payments
  - (e) None of these
5. Which among the following can not be called an ant inflationary measure?
  - (a) Raising the Bank Rates
  - (b) Raising the Reserve Ratio Requirements
  - (c) Purchase of securities in the Open Markets
  - (d) Rationing of the Credit
  - (e) None of these
6. Which of the following is the abbreviated name of the body/ agency set up to boost foreign investments in India?
  - (a) FOREX
  - (b) FCCB
  - (c) FIPB
  - (d) FEMA
  - (e) AITAF
7. Consider the following statements :
  - (1) Fiat money is a term used for Gold coins
  - (2) Currency Deposit Ratio is the proportion of the total deposits commercial banks keep as reserves.Which of the above statements is/are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
  - (e) None of these
8. Which of the following statements is/are correct in regard to 'micro-finance'?
  - (1) Micro-credit extended by banks to individual is reckoned as a part of their priority sector lending.
  - (2) RBI has prescribed a particular model the banks to provide micro-finance.Choose the correct answer using the codes given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
  - (e) None of these
9. RBI's open market operation transactions are carried out with a view to regulate
  - (a) Liquidity in the economy
  - (b) Prices of essential commodities
  - (c) Inflation
  - (d) Borrowing power of the banks
  - (e) All of the these
10. The bank rate means
  - (a) Rate of interest charged by commercial bank from borrowers
  - (b) Rate of interest at which commercial banks discounted bills of their borrowers.
  - (c) Rate of interest allowed by commercial banks on their deposits.
  - (d) Rate at which RBI purchases or rediscounts bills of exchange of commercial banks.
  - (e) None of these

11. Currency swap is an instrument to manage  
 (a) Currency Risk  
 (b) Interest Rate Risk  
 (c) Currency and interest rate risk  
 (d) Cash flows in different currencies  
 (e) None of these
12. The IMF and the World bank were conceived as institutions to  
 (a) Strengthen international economic co-operation and to help create a more stable and prosperous global economy.  
 (b) IMF promotes international momentary cooperation  
 (c) The world bank promotes long term economics development and poverty reduction.  
 (d) All of these  
 (e) None of these
13. Banks in India are required to maintain a portion of their demand and time liabilities with the Reserve Bank of India. This portion is called \_\_\_\_\_.  
 (a) Statutory Liquidity Ratio  
 (b) Cash Reserve Ratio  
 (c) Bank Deposit  
 (d) Reserve Repo  
 (e) Government Securities
14. Pre-shipment finance is provided by the banks only to \_\_\_\_\_.  
 (a) Credit Card Holders  
 (b) Students aspiring for further studies  
 (c) Brokers in equity market  
 (d) Exporters  
 (e) None of these
15. Banking Ombudsman is appointed by \_\_\_\_\_.  
 (a) Government of India (b) State Governments  
 (c) RBI (d) ECGC  
 (e) Exim Bank
16. The Holidays for the Banks are declared as per \_\_\_\_\_.  
 (a) Reserve Bank Act  
 (b) Banking Regulation Act  
 (c) Negotiable Instruments Act  
 (d) Securities and Exchange Board of India Act  
 (e) Companies Act
17. Interest on Savings deposit nowadays is \_\_\_\_\_.  
 (a) Fixed by RBI  
 (b) Fixed by the respective Banks  
 (c) Fixed by the Depositors  
 (d) Fixed as per the contract between Bank and the Consumer Court  
 (e) Not paid by the Bank
18. Interest below which a bank is not expected to lend to customers is known as \_\_\_\_\_.  
 (a) Deposit Rate (b) Base Rate  
 (c) Prime Lending Rate (d) Bank Rate  
 (e) Discount Rate
19. The customers' by opening and investing in the Tax Saver Deposit Account Scheme in a Bank would get benefit under \_\_\_\_\_.  
 (a) Sales Tax  
 (b) Customs Duty  
 (c) Excise Duty  
 (d) Professional Tax  
 (e) Income Tax
20. In banking business, when the borrowers avail a Term Loan, initially they are given a repayment holiday and this is referred as \_\_\_\_\_.  
 (a) Subsidy  
 (b) Interest Waiver  
 (c) Re-phasing  
 (d) Interest concession  
 (e) Moratorium
21. Banks with higher proportion of demand deposits will have  
 (a) Low cost money at its disposal  
 (b) Low interest money at its disposal  
 (c) Higher number of current and savings accounts  
 (d) High amount of liquid money  
 (e) All of the above
22. What is the term for the cheque issued by a person to another person in which the issuing date is after a few days (a date which is yet to come)?  
 (a) Anti-dated cheque  
 (b) Stale cheque  
 (c) Post-dated cheque  
 (d) Crossed cheque  
 (e) Order cheque
23. Which of the following is the proper removal of any malicious program from a computer System?  
 (a) Reconfiguration  
 (b) Reboot  
 (c) Restart  
 (d) Uninstallation  
 (e) Only (b) and (d)
24. In the field of banking, what does CRAR stand for?  
 (a) Capital Reserve Adequacy Ratio  
 (b) Capital to Risk (Weighted) Assets Ratio  
 (c) Capital Reserve Assets Ratio  
 (d) Capital Risk Adequacy Ratio  
 (e) None of these
25. Which of the following does not come under the second level of management in an organization?  
 (a) Purchase Managers  
 (b) Departmental Heads  
 (c) Supervisors  
 (d) Branch Managers  
 (e) Finance Managers
26. Which of the following terms /expressions is used to describe a business unit with a competitive advantage that will capture some of the extra economic values it creates, no matter how intense competition is?  
 (a) Consonance  
 (b) Advantage  
 (c) Consistency  
 (d) Feasibility  
 (e) All of the above
27. 88th Akhil Bhartiya Marathi Sahitya Sammelan was held at  
 (a) Gurdaspur (b) Karnal  
 (c) Kolhapur (d) Surat  
 (e) None of these



28. Which state government has launched India's first E-Vidhaan Mobile Apps?  
 (a) Kerala (b) Tamil Nadu  
 (c) Himachal Pradesh (d) Haryana  
 (e) None of these
29. Which of the following statements are correct regarding ordinance-making power of the President of India?  
 (1) Article 123 of the Indian Constitution empowers President to promulgate an ordinance.  
 (2) He can issue an ordinance only if the parliament is not in session.  
 (3) Such an ordinance lapses if not approved by the parliament within two months of the re-assembly of parliament.
- Codes :**  
 (a) 1 and 2 only  
 (b) 1 and 3 only  
 (c) 2 and 3 only  
 (d) All of these  
 (e) None of these
30. Who among the following badminton players became the first Indian to be ranked world no. 1?  
 (a) Pullela Gopichand  
 (b) Saina Nehwal  
 (c) Prakash Padukone  
 (d) U. Vimal Kumar  
 (e) None of these
31. Which of the following agreements/ Memorandum of Understanding (MoU) were signed between India and Qatar in March 2015?  
 (1) MoU in the field of Television and Radio  
 (2) MoU in the field of Information and Communication technology  
 (3) MoU in the field of sports
- Codes :**  
 (a) 1 and 2 only (b) 1 and 3 only  
 (c) 2 and 3 only (d) All of these  
 (e) None of these
32. Consider the following statements about Sagarmala Project that was approved by Union Cabinet recently.  
 (1) It's objective is to promote port-led direct and indirect development  
 (2) Sagarmala Coordination and Steering Committee (SCSC) under the chairmanship of the Secretary, Ministry of Shipping will be constituted.  
 (3) Sagarmala project proposes for coastal cities.  
 Which is/are correct?  
 (a) Only 1  
 (b) Only 2  
 (c) Both 1 and 2  
 (d) Both 1 and 3  
 (e) None of these
33. What is the name of the Operation that was launched by India in the last week of March 2015 to evacuate 4000 Indians from strife-torn Yemen?  
 (a) Operation Megh Raahat  
 (b) Operation Videsh Rahat  
 (c) Operation Suraksha  
 (d) Operation Raahat  
 (e) None of these]
34. Name the author of the book titled Aatank Ke Saaye Men that was released by Vice President of India Hamid Ansari.  
 (a) Akhil Sharma (b) Mahashweta Devi  
 (c) Garima Sanjay (d) Ravinder Randhawa  
 (e) None of these
35. Name the state that launched Aahar, a cheap meal scheme, for providing subsidised food to urban poor.  
 (a) Karnataka (b) Odisha  
 (c) Tamil Nadu (d) Assam  
 (e) None of these
36. Union Ministry of Youth Affairs and Sports signed a Memorandum of Understanding (MoU) with which company to support Target Olympic Podium (TOP) Scheme for Badminton sport?  
 (a) Oil and Natural Gas Corporation (ONGC)  
 (b) Tata Sports Academy (TSA)  
 (c) Infrastructure Finance Company Limited (IIFCL)  
 (d) Reliance Industries Limited (RIL)  
 (e) None of these
37. Which Indian-origin nurse was named for the International Achievement Award for the year 2015 by the Florence Nightingale International Foundation?  
 (a) Jacintha Saldanh  
 (b) Bhavesh Shah  
 (c) Subadhra Devi Rai  
 (d) Sanjay Garima  
 (e) None of these
38. Name the person who was sworn-in as the 16th Governor of Mizoram.  
 (a) Aziz Qureshi  
 (b) Vinod Kumar Duggal  
 (c) A. Padmanabhan  
 (d) Keshari Nath Tripathi  
 (e) None of these
39. State Government of Maharashtra announced to make sale of gutka a non-bailable offence under which section of the Indian Penal Code (IPC)?  
 (a) Section 511 (b) Section 328  
 (c) Section 267 (d) Section 263A  
 (e) None of these
40. Which section of the Information Technology Act, 2000 was declared as unconstitutional and struck down by the Supreme Court?  
 (a) Section 77A  
 (b) Section 66A  
 (c) Section 67A  
 (d) Section 78A  
 (e) None of these
41. India has recently signed a Memorandum of Understanding in the field of textile and clothing with which of the following countries?  
 (a) Kazakhstan (b) Turkmenistan  
 (c) Kyrgyzstan (d) Belarus  
 (e) None of these

42. Which of the following agreements and Memorandum of Understanding (MoU) were signed between India and Seychelles during recent visit of Indian Prime Minister to the island country?
- (1) MoU for the supply of coastal surveillance radar systems
  - (2) MoU on higher education
  - (3) Agreement for the supply of a Dornier Aircraft
  - (4) Agreement on hydro graphic survey
- Codes**
- (a) 2 and 3 only
  - (b) 1, 3 and 4 only
  - (c) 2, 3 and 4 only
  - (d) All of these
  - (e) None of these
43. Which of the following statements are true regarding Pharma Jan Samadhan scheme?
- (1) It has been launched by the Ministry of Chemicals and Fertilizers.
  - (2) It is a complaint redressal system with respect to availability and pricing of medicines.
  - (3) The scheme will provide consumers with an online facility created by National Pharmaceutical Pricing Authority (NPPA).
- Codes**
- (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) All of these
  - (e) None of these
44. According to Ministry of Corporate Affairs, which was the largest corporate in India for the year 2014?
- (a) National Thermal Power Corporation (NTPC)
  - (b) Reliance Industries Limited (RIL)
  - (c) Indian Oil Corporation (IOC)
  - (d) HDFC
  - (e) None of these
45. Which of the following statements are correct regarding Sree Shakti Puraskar?
- (1) The award is given by Ministry of Women and Child Development.
  - (2) It was instituted in the year 1991.
  - (3) It is conferred by the President of India on International Women's Day on 10th March.
- Codes**
- (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) All of these
  - (e) None of these
46. Which of the following statements are correct?
- (1) India has recently signed an agreement on Mutual Protection of Classified Information with France.
  - (2) The agreement has paved the way for deeper negotiation and enhancing defence cooperation.
  - (3) This agreement has signed between India and Spain.
- Codes**
- (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Both 2 and 3
  - (e) None of these
47. Sunil Sabharwal is associated which of the following international organizations?
- (a) World Trade Organization (WTO)
  - (b) World Bank
  - (c) World Health Organization (WHO)
  - (d) International Monetary Fund (IMF)
  - (e) None of these
48. Recently, Union Ministry of Shipping, Road Transport & Highways launched a new website called
- (a) Shipping Samvad
  - (b) Shipping Nivedan
  - (c) Shipping Vartalaap
  - (d) Shipping Vikaas
  - (e) None of these
49. Who among the following has been selected for the Jnanpith Award 2014?
- (a) Rabindra Sarkar
  - (b) M. N. Paloor
  - (c) Satish Kalsekar
  - (d) Bhalchandra Nemade
  - (e) None of these
50. Who is the author of the book "Recasting India: How Entrepreneurship is Revolutionizing the World's Largest Democracy"?
- (a) C.N. Ramachandran
  - (b) Hindol Sengupta
  - (c) James Grant
  - (d) Chinu Modi
  - (e) None of these
51. Which of the following statements are correct?
- (1) "Towards Zero Poaching in Asia", a symposium was held in Kathmandu, Nepal.
  - (2) India is the only country to achieve zero poaching among the tiger range countries in Asia.
- Codes**
- (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 Nor 2
  - (e) None of these
52. Who won the men's singles title of the Swiss Open of Badminton?
- (a) Kidambi Srikanth (India)
  - (b) Sun Yu (China)
  - (c) Lu Kai (China)
  - (d) Viktor Alexson (Denmark)
  - (e) None of these
53. India and Mauritius inked 5 Memorandum of Understandings (MoUs) to give impetus to bilateral co-operation. Which one of the following MoUs is/are among the 5 MoUs signed?
1. Cooperation in the field of Traditional System of Medicine and Homeopathy
  2. Cooperation in hydrography
  3. Cooperation in Sale of navigation charts and electronic navigational charts
  4. Cultural Cooperation between the India and Mauritius for the year 2015-18
- (a) Only 1
  - (b) Only 1 and 4
  - (c) Only 2 and 3
  - (d) All of the above
  - (e) None of these

54. Who became the first cricketer to score four consecutive One Day Internationals (ODIs) in a Cricket World Cup?
- Shikhar Dhawan
  - Kumar Sangakarra
  - David Warner
  - Chris Gayle
  - None of these
55. Which country won the bid to host the Asian Football Cup 2019?
- United Arab Emirates
  - Iran
  - China
  - Thailand
  - None of these
56. Which state Government on 8 March 2015 launched Bhagyashree scheme for girl child?
- Uttar Pradesh
  - Maharashtra
  - Sikkim
  - Tripura
  - None of these
57. Which of the following statements are true regarding Real Estate (Regulation and Development) Bill?
- It seeks to establish Real Estate Regulatory Authorities (RERAs) at state level.
  - 50% of the amount collected from buyers for a project must be maintained in a separate bank account and should be used only for construction purpose.
  - 70% of the amount collected from buyers for a project must be maintained in a separate bank account and should be used only for construction purpose.

**Codes**

- 1 only
  - 2 only
  - Both 1 and 2
  - Both 1 and 3
  - None of these
58. Which state emerged as best performer as per the latest data on the performance of states on the Twenty Point Programme?
- Gujarat
  - Rajasthan
  - Maharashtra
  - Madhya Pradesh
  - None of these
59. Who became the first Chief Minister to receive the second highest civilian award Padma Vibhushan?
- Parkash Singh Badal
  - Tarun Gogoi
  - Okram Ibobi Singh
  - Mukul Sangma
  - None of these
60. Employees' Provident Fund Organisation (EPFO) set up an online help desk to trace inoperative provident fund accounts and seek final settlement. In this context consider the following statements:
- There are about 8.15 crore inoperative provident fund accounts with a balance of 20000 crore rupees.
  - Inoperative accounts are those accounts wherein the contribution has not been received for 36 months.

Which is/are true?

- Only 1
- Only 2
- Both 1 and 2
- Neither 1 nor 2
- None of these

61. Consider the following operational guidelines issued by the Reserve Bank of India (RBI) on 18 February 2015 with respect to import of gold by nominated banks and agencies.
- The obligation to export under the 20:80 scheme will continue to apply in respect of unutilised gold imported before 28 November 2014.
  - The import of gold coins and medallions will no longer be prohibited.
  - Restrictions on banks in selling gold coins and medallions were also lifted up.

Which is/are true?

- 1 and 2
- 2 and 3
- 1 and 3
- All of the above
- None of these

62. Consider the following statements in context of Mridaparikshak that was launched.
- It has been jointly developed by Indian Council of Agricultural Research (ICAR) and Indian Institute of Soil Science, (IISS) Bhopal.
  - It is a minilab for soil testing.
  - It determines all the important soil parameters, i.e. soil pH, EC, organic carbon, available nitrogen, phosphorus, potassium, sulphur and micronutrients like zinc, boron, and iron.

Which of the following statements are correct?

- 1 & 2
- 2 & 3
- 1 & 3
- All of the above
- None of these

63. Manuel Valls headed socialist government of France survived the no-confidence motion. In this context consider the reason(s) due to which opposition brought the motion against the government:
- Manuel Valls employed 49 - 3 decree of the Constitution to force through a key package of economic reforms.
  - The socialist government passed a law to extend the austerity measures to comply with the European Union rule on national debt.
  - Manuel Valls employed 47-3 decree of Constitution to force through a key package of economic reforms.

Which is/are true?

- Only 1
- Only 2
- Both 1 and 2
- Only 3
- None of these

64. The Union Govt. launched a Rs. 200 crore scheme to set up a network of technology and incubation centres to accelerate entrepreneurship and promote start-ups for innovation and entrepreneurship in agro-industry. Which entity would provide financial aid under this scheme?

- SIDBI
- IDBI
- HDFC
- ICICI
- None of these

65. The Union Govt. during March 2015 established a fund with a corpus of ` 500 crore which seeks to keep prices of perishable farm commodities under control through suitable market interventions. What is the name of this fund?
- 'Price Stabilization Fund' (PSF)
  - Price Market Fund
  - Government price fund
  - Commodities price fund
  - None of these
66. Which associate bank of the State Bank Group announced a 10 basis-point cut in the base rate to 10.15% and with this became first major to come out with a rate cut in the post-Budget phase ?
- State Bank of Bikaner & Jaipur
  - State Bank of Hyderabad
  - State Bank of Travancore
  - State Bank of Patiala
  - None of these
67. According to information disclosed, an agreement was signed between the Centre and the Reserve Bank of India (RBI) during February 2015 that sets inflation target for the RBI. What is this target? -
- To bring inflation down to 6% by January 2016
  - To bring inflation down to 5% by January 2016
  - To bring inflation down to 3% by January 2016
  - To bring inflation down to 7% by January 2016
  - None of these
68. Which state-owned bank of Britain has decided to close its banking operations in India as disclosed recently?
- ABN-AMRO Bank
  - American Express Banking Corp
  - Barclays Bank
  - Royal Bank of Scotland (RBS)
  - None of these
69. The Reserve Bank of India constituted a committee to evaluate applications received for the proposed small finance banks. Who is heading this committee?
- Amit Mitra
  - Usha Thorat
  - Abhijit Banerjee
  - B. B. Bhattacharya
  - None of these
70. The Reserve Bank of India constituted a committee to evaluate applications received for payments banks. Who is heading this committee ?
- Dr. Nachiket Mor,
  - Bimal Jalan
  - C. Rangarajan
  - Jayati Ghosh
  - None of these
71. Which private bank launched first-of-its-kind digital banking service called "Pockets", which enables users to instantly send money to any e-mail id, mobile number, friends on Facebook and bank account?
- HDFC Bank
  - ICICI Bank
  - YES Bank
  - Kotak Mahindra Bank
  - None of these
72. The largest share sale by a private sector entity and the second largest fund-raising by selling shares in the secondary market in India took place when a leading private bank raised ` 9,880 crore. Which bank is this?
- HDFC Bank
  - ICICI Bank
  - YES Bank
  - Kotak Mahindra Bank
  - None of these
73. The Reserve Bank of India (RBI) released its 6th Bi-monthly Monetary Review. Which is the only prominent rate that was changed in this review?
- Repo rate
  - Reverse Repo rate
  - Statutory Liquidity Ratio (SLR)
  - CRR
  - None of these
74. Which scheme of the Union Govt. was conferred with the Guinness record?
- Swachh Bharat Abhiyan
  - Mission Indradhanush
  - Pradhan Mantri Jan Dhan Yojana (PMJDY)
  - Beti bachao Beti Padhao Scheme
  - None of these
75. What was the share of private banks in this flagship financial inclusion programme (Pradhan Mantri Jan Dhan Yojana) of the government?
- 7 %
  - 5 %
  - 3 %
  - 8 %
  - None of these
76. Which bank launched India's first contactless debit and credit card that enables one to make payments by just waving the card near merchant terminals instead of swiping the same?
- IDBI
  - HDFC
  - ICICI Bank
  - CITY Bank
  - None of these
77. What is the proposed timeline for listing of shares under e-IPO?
- 2 to 3 days
  - 3 to 4 days
  - 4 to 5 days
  - 5 to 6 days
  - None of these
78. Gyan Sangam - the 2-day bankers retreat, was held in which city?
- Ahmadabad
  - New Delhi
  - Pune
  - Jaipur
  - None of these
79. Up to what limit, the small entrepreneurs can get credit from the MUDRA Bank?
- Five
  - Ten
  - Fifteen
  - Twenty
  - None of these
80. The Reserve Bank of India (RBI) has signed a US \$400 million currency swap agreement with
- Central Bank of Sri Lanka
  - Central Bank of Bhutan
  - Central Bank of Bangladesh
  - Central Bank of Canada
  - None of these

81. Reverse repo rate under the LAF - remains unchanged at  
(a) 6.75 per cent. (b) 6.5 per cent.  
(c) 5.5 per cent. (d) 5.6 per cent.  
(e) None of these
82. Which bank in India ranks number one in India in terms of market capitalization?  
(a) SBI (b) ICICI Bank  
(c) UTI Bank (d) IDBI Bank  
(e) None of these
83. The Union Government approved raising its stake up to 51% in which financial institution so as to make it a government company?  
(a) CRISIL  
(b) IFCI  
(c) Oriental Insurance Company  
(d) NABARD  
(e) None of these
84. The 14th Finance Commission submitted its report to the President. The commission headed by former RBI Governor Y.V.Reddy has been constituted for which period for which it submitted its report?  
(a) 1 April 2015 to 31 March 2018  
(b) 21 April 2015 to 31 March 2020  
(c) 1 April 2015 to 31 March 2021  
(d) 1 April 2015 to 31 March 2025  
(e) None of these
85. Which private-sector bank received approval from the Reserve Bank of India (RBI) to enter the general insurance business?  
(a) City Union Bank  
(b) Karnataka Bank  
(c) Kotak Mahindra Bank (KMB)  
(d) Karur Vysya Bank  
(e) None of these
86. Which of the following is not insured by Deposit Insurance and Credit Guarantee Corporation (DICGC)?  
(a) Commercial Banks  
(b) Cooperative Banks  
(c) Primary Co-operative societies  
(d) Foreign Banks functioning in India  
(e) None of these
87. Who was re-appointed as the chairman of the IPL governing council?  
(a) Saurav Ganguly  
(b) Rajeev Shukla  
(c) Sunil Gavaskar  
(d) Sandeep Patil  
(e) None of these
88. Which country will host the fifth meeting of SAARC health ministers in April 2015?  
(a) India (b) Nepal  
(c) Sri Lanka (d) Bangladesh  
(e) None of these
89. Which state government re-launched the anti-corruption helpline number 1031 to help people register their complaints if they are harassed for bribes?  
(a) Haryana  
(b) Uttar Pradesh  
(c) Delhi  
(d) Rajasthan  
(e) None of these
90. Which airport has recently bagged the prestigious Golden Peacock National Quality Award for the year 2015?  
(a) Delhi International Airport Limited  
(b) Veer Savarkar International Airport  
(c) Chhatrapati Shivaji International Airport  
(d) Trivandrum International Airport  
(e) None of these
91. What is the code name of the military operation in Yemen against Shia Houthi group?  
(a) Operation Rahat  
(b) Operation Thunderbolt  
(c) Operation All Out  
(d) Operation Decisive Storm  
(e) None of these
92. Carolina Marin who recently won the women's singles titles of Malaysia Open Super series Premier badminton tournament, is from which country?  
(a) Germany  
(b) Spain  
(c) Switzerland  
(d) Malaysia  
(e) None of these
93. Prime Minister Narendra Modi launched National Air Quality Index (AQI) for monitoring the quality of air in major urban centres across the country on a real-time basis. The AQI has been developed by the Central Pollution Control Board in consultation with?  
(a) IIT-Kanpur  
(b) IIT-Madras  
(c) IIT-Delhi  
(d) IIT-Guwahati  
(e) None of these
94. Government notified the National Judicial Appointments Commission Act, 2014 and also \_\_\_th constitution amendment act?  
(a) 99th  
(b) 100th  
(c) 94th  
(d) 101st  
(e) None of these
95. Which state government announced Cabinet-rank status for yoga guru Baba Ramdev?  
(a) Gujarat  
(b) Maharashtra  
(c) Jharkhand  
(d) Haryana  
(e) None of these
96. Former US Secretary of State Hillary Clinton announced that she would be contesting the election for the office of U.S. president to be held in which year?  
(a) 2015 (b) 2018  
(c) 2016 (d) 2017  
(e) None of these

97. Name the Foreign Minister of North Korea who visited India from 12 April to 14 April 2015, which was also the first-ever visit of a foreign minister of North Korea to India?  
 (a) Wang Yi  
 (b) Ri Su Yong  
 (c) Fumio Kishida  
 (d) Ri Su Kishida  
 (e) None of these
98. India's first International Financial Services Centre (IFSC) recently became operational at GIFT City in Gandhinagar district of which state?  
 (a) Kerala  
 (b) Maharashtra  
 (c) Karnataka  
 (d) Gujarat  
 (e) None of these
99. In a landmark development, U.S. President Barack Obama and Cuban President \_\_\_\_ held a meeting on 11 April 2015, which marked the first summit between the two countries since the height of the Cold War?  
 (a) Raul Castro  
 (b) Michelle Bachelet  
 (c) Simpson Miller  
 (d) Enrique Peña Nieto  
 (e) None of these
100. Renowned novelist, poet, playwright, illustrator, graphic artist, sculptor and recipient of the 1999 Nobel Prize in Literature, Gunter Grass who passed away on 12 April 2015 was from which country?  
 (a) Mexico  
 (b) France  
 (c) Germany  
 (d) Canada  
 (e) None of these

## RESPONSE SHEET

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# Hints & Solutions





## SPEED TEST 1

1. (d)  $(26)^2 - 358 = x \times \frac{53}{100}$   
 $676 - 358 = x \times \frac{53}{100}$   
 $318 = x \times \frac{53}{100}$   
 $\therefore x = 600$   
 Again  $600 \times \frac{3}{4} \times \frac{23}{100} = 103.5$
2. (b) Average of Set A =  $\frac{376}{8} = 47$   
 Minimum number of second set =  $47 + 15 = 62$   
 Hence, required sum =  $62 + 63 + 64 + 65 + 66 = 320$
3. (d) 4. (d)
5. (c) (H) Hens has one head and two feet.  
 (G) Goats has one head and four feet.  
 According to question,  
 $H + G = 90$  ..... (i)  
 $2H + 4G = 248$  ..... (ii)  
 Multiplying by 2 in equation (i) and subtract  
 $2H + 2G = 180$   
 $2H + 4G = 248$   
 $\underline{\hspace{1cm}}$   
 $\hspace{1.5cm} - 2G = -68$   
 $\therefore G = 34$   
 $\therefore$  Number of goats = 34  
 Put the value of G in equation (i)  
 $H + 34 = 90$   
 $H = 56$
6. (e)  $x + y = 15$  ..... (i)  
 $x - y = 3$  ..... (ii)  
 Add eqs. (i) and (ii)  
 $x = 9, y = 6$   
 Product of two digits of the number =  $9 \times 6 = 54$
7. (e)  $P + T = 858$  ..... (i)  
 (Because both have one head)  
 $2P + 4T = 1746$  ..... (ii)  
 (Because parrot has two legs and tiger has four legs)  
 Multiply by 2 in Eq. (i) and subtract  
 $2P + 2T = 1716$   
 $\underline{-2P + 4T = 1746}$   
 $\hspace{1.5cm} -2T = -30$   
 $\therefore T = 15$   $P = 843$
8. (a) Suppose the number is x.  
 $x \times \frac{1}{5} \times \frac{3}{4} \times \frac{2}{3} = 15 \Rightarrow x = 15 \times \frac{5}{1} \times \frac{4}{3} \times \frac{3}{2} \Rightarrow x = 150$   
 30% of x =  $150 \times .3 = 45$
9. (c) Suppose the number of sweets is = x  
 $\therefore \frac{x}{450-150} - \frac{x}{450} = 3$   
 $\frac{x}{300} - \frac{x}{450} = 3$  or  $\frac{3x-2x}{900} = 3$   
 $x = 2700$   
 Number of sweets to each children =  $\frac{2700}{300} = 9$
10. (b)  $x - 600 \times \frac{75}{100} \times \frac{2}{3} = 320$   
 $x = 320 + \frac{600 \times 75 \times 2}{100 \times 3} = 620$
11. (e)  $x + x + 1 + x + 2 + x + 3 + x + 4 = 270$   
 $5x = 27 - 10 = 260$

- $x = \frac{260}{5} = 52$   
 $x + 1 + x + 4 = 2x + 5 = 2 \times 52 + 5 = 109$
12. (d) According to question number = x  
 $x \times 2 + 42 \times 3 = 238$   
 $2x = 112$  or  $x = 56$   
 Again  $3 \times 56 + 42 \times 2 = 168 + 84 = 252$ .
13. (c) Suppose the number is  $10x + y$ .  
 (When number at unit place is y and at tens place is x)  
 $(10x + y) - (10y + x) = 9$   
 $x - y = 1$  ..... (i)  $x + y = 15$  ..... (ii)  
 Solving equation (i) and (ii) we get,  $x = 8; y = 7$   
 Required number =  $10 \times 8 + 7 = 87$
14. (d) Total consumption of electricity  
 =  $(10 \times 16 \times 8 + 3 \times 10 \times 8)$  unit  
 =  $(1280 + 240)$  unit = 1520 unit
15. (b) Suppose the number is x.  
 $x - \frac{x}{7} = 180 \Rightarrow \frac{7x - x}{7} = 180$   
 $\Rightarrow \frac{6x}{7} = 180 \Rightarrow x = \frac{180 \times 7}{6}$   
 $x = 210$
16. (e) Suppose numbers are x and y  
 $\therefore x \times \frac{3}{4} = \frac{5}{6} \times y \Rightarrow \frac{x}{y} = \frac{5}{6} \times \frac{4}{3} \Rightarrow \frac{x}{y} = \frac{10}{9}$
17. (d) Suppose first and second number is x and y.  
 $2x^2 = 6y$   
 $x^2 = 3y$   
 Ratio cannot be determined.
18. (b) Suppose digit at tens place is 2x and unit place is x.  
 So original number =  $20x + x = 21x$   
 After interchanging the number  
 =  $10x + 2x = 12x$   
 $21x - 12x = 27$   
 $x = 3$   
 So, number = 63  
 Anuj's monthly salary =  $324000 \div 12 = 27000$
19. (c) Suppose each child got x sweets.  
 $\therefore 112 \times x = (112 - 32) \times (x + 6)$   
 $112x = 80 \times (x + 6)$   
 $112x = 80x + 480$   
 $112x - 80x = 480$   
 $x = 15$
20. (d)  $\left(6\frac{3}{5} - 3\frac{4}{5}\right) \times 355 = \left(\frac{33}{5} - \frac{19}{5}\right) \times 355$   
 =  $\left(\frac{33-19}{5}\right) \times 355 = \frac{14 \times 355}{5} = 994$
21. (b) Suppose the number is  $10x + y$   
 $\therefore (10x + y) - (10y + x) = 63$   
 $\Rightarrow 9x - 9y = 63$   
 $x - y = 7$   
 $\Rightarrow x + y = 11$   
 $\therefore x = 9$   
 $y = 2$   
 So, required number = 92
22. (b) Suppose the number is x  
 $\therefore x \times \frac{1}{5} = 81$   
 $\Rightarrow x = 81 \times 5 = 405$   
 $\therefore \frac{x \times 68}{100} = \frac{405 \times 68}{100}$   
 $x = 275.4$

23. (c)  $\frac{?}{432} = \frac{243}{?} \Rightarrow (?)^2 = 432 \times 243$   
 $? = \sqrt{104976} = 324$
24. (d) Suppose the numbers are x and y  
 $\therefore xy = 640$   
 and  $x + y = (x - y) + 32$   
 $x + y = x - y + 32$   
 $2y = 32$   
 $y = 16$   
 and  $x = \frac{640}{16} = 40$   
 So, largest number is 40.
25. (b) Suppose the number is x.  
 $\Rightarrow x \times \frac{5}{6} = 720$   
 $x = \frac{720 \times 6}{5}$   
 $\therefore x = 864$   
 $\therefore 864 \times \frac{45}{100} = 388.8$
26. (d)  $? = 1008 \times \frac{7}{8} - 568 \times \frac{3}{4}$   
 $? = 882 - 426 = 456$
27. (b) Suppose the number is x.  
 $2x^2 - 11x = 21$   
 $\Rightarrow 2x^2 - 11x - 21 = 0 \Rightarrow 2x^2 - 14x + 3x - 21 = 0$   
 $\Rightarrow 2x(x - 7) + 3(x - 7) = 0 \Rightarrow (x - 7)(2x + 3) = 0$   
 $\therefore x = 7 \text{ or } -\frac{3}{2}$
28. (e) Suppose the greater number is x  
 $x(x - 2) = 6888$  or  $x^2 - 2x - 6888 = 0$   
 $x^2 - 84x + 82x - 6888 = 0$  or  $x(x - 84) + 82(x - 84) = 0$   
 $(x - 84)(x + 82) = 0$  or  $x = 84$  or  $-82$   
 So, the greater number is 84.
29. (c) Let the total number of packages be x.  
 After uploading  $\frac{2}{5}x$  packages remaining packages are  
 $x - \frac{2}{5}x = \frac{3}{5}x$   
 According to the question,  
 When he uploaded another 3 packages then of original no. of packages remained.  
 $\therefore \frac{3x}{5} - 3 = \frac{x}{2} \Rightarrow \frac{3}{5}x - \frac{1x}{2} = 3$   
 $\Rightarrow 6x - 5x = 30 \Rightarrow x = 30$   
 Hence, 30 packages were in the van before the first delivery.
30. (a) An army commander has 5180 men in the form of a solid square.  
 If he get four more men and form the solid square then no. of men in the front row  
 $= \sqrt{5180 + 4} = \sqrt{5184} = 72$

2. (c)  $2 \times \frac{6y}{11} - 8 = y - 4$  or  $\frac{12y}{11} - y = -4 + 8$  or  $\frac{y}{11} = 4$   
 $\therefore y = 44$  yr.  
 $\therefore$  Age of Rakesh after 5 yr =  $44 + 5 = 49$  yr.
3. (e)  $\frac{x + 1.5x}{y + 3.5y} = \frac{25}{51}$   
 $\frac{2.5x}{4.5y} = \frac{25}{51}$   
 $\frac{x}{y} = \frac{25 \times 45}{51 \times 25} = \frac{15}{17}$
4. (a) Suppose the number is x.  
 $x \times \frac{1}{5} \times \frac{3}{4} \times \frac{2}{3} = 15 \Rightarrow x = 15 \times \frac{5}{1} \times \frac{4}{3} \times \frac{3}{2} \Rightarrow x = 150$   
 30% of x =  $150 \times 0.3 = 45$
5. (e) Change the fractional value into percentage  
 $\frac{5}{6} \times 100 = 83\frac{1}{3}\%$   
 $\frac{2}{3} \times 100 = 66\frac{2}{3}\%$   
 $\frac{2}{5} \times 100 = 40\%$   
 $\frac{1}{4} \times 100 = 25\%$   
 $\frac{2}{11} \times 100 = 18\frac{2}{11}\%$   
 Value less than 20% =  $\frac{2}{11}$
6. (e) Suppose first number is x and second number is y.  
 $y = 0.3x = \frac{3}{10}x$   
 $y - 0.8y = 0.3x$   
 $0.2y = 0.3x$   
 $\frac{x}{y} = \frac{2}{3}$
7. (e) Suppose the original fraction is  $\frac{x}{y}$ .  
 According to question,  
 $\frac{x + x \times \frac{400}{100}}{y + y \times \frac{100}{100}} = \frac{20}{27} \Rightarrow \frac{x + 4x}{y + 5y} = \frac{20}{27}$   
 $\Rightarrow \frac{5x}{6y} = \frac{20}{27} \Rightarrow \frac{x}{y} = \frac{20 \times 6}{27 \times 5} \Rightarrow \frac{x}{y} = \frac{8}{9}$
8. (b) Suppose original fraction is  $\frac{x}{y}$ .  
 $\therefore \frac{x + \frac{200x}{100}}{y + \frac{350y}{100}} = \frac{5}{12} \Rightarrow \frac{300x}{100} \times \frac{100}{450y} = \frac{5}{12}$   
 $\Rightarrow \frac{300x}{450y} = \frac{5}{12} \Rightarrow \frac{2x}{3y} = \frac{5}{12} \Rightarrow \frac{x}{y} = \frac{5}{12} \times \frac{3}{2} \Rightarrow \frac{x}{y} = \frac{5}{8}$   
 Short cut  
 $\frac{x + 2x}{y + 3.5y} = \frac{5}{12}$   
 $\frac{3x}{4.5y} = \frac{5}{12}$  or  $\frac{x}{y} = \frac{5 \times 45}{3 \times 12} = \frac{5}{8}$
9. (b) Suppose number is x.

**SPEED TEST 2**

1. (c) Let the age of Ram = x and Rakesh = y  
 then  $\frac{x}{y} = \frac{6}{11}$   
 $\therefore x = \frac{6y}{11}$   
 According to question,  $\frac{x - 4}{y - 4} = \frac{1}{2}$   
 $2x - 8 = y - 4$

- $\therefore x \times \frac{4}{5} \times \frac{3}{4} - x \times \frac{2}{5} \times \frac{1}{6} = 648$   
 $\frac{12x}{20} - \frac{2x}{30} = 648 \Rightarrow \frac{36x - 4x}{60} = 648$   
 $\Rightarrow \frac{32x}{60} = 648 \Rightarrow x = \frac{648 \times 60}{32} = 81 \times 15$   
 $\Rightarrow x = 1215$
10. (d)  $\left(6\frac{3}{5} - 3\frac{4}{5}\right) \times 355 = \left(\frac{33}{5} - \frac{19}{5}\right) \times 355$   
 $= \left(\frac{33-19}{5}\right) \times 355 = \frac{14 \times 355}{5} = 994$
11. (c) Suppose original fraction is  $= \frac{x}{y}$   
 $\frac{x + \frac{240}{100}x}{y - \frac{50}{100}y} = 2\frac{5}{6} \Rightarrow \frac{x + 2.4x}{y - 0.5y} = \frac{17}{6}$   
 $\frac{3.4x}{0.5y} = \frac{17}{6}$   
 $\therefore \frac{x}{y} = \frac{17}{6} \times \frac{0.5}{3.4}$   
 $\frac{x}{y} = \frac{5}{12}$
12. (d) Suppose the fraction is  $\frac{x}{y}$   
 $\therefore \frac{x + 2x}{y + 3y} = \frac{15}{26} \Rightarrow \frac{3x}{4y} = \frac{15}{26}$   
 $\therefore \frac{x}{y} = \frac{15}{26} \times \frac{4}{3} = \frac{60}{78}$   
 $\therefore \frac{x}{y} = \frac{10}{13}$
13. (b) Suppose the number is  $x$   
 $\therefore x \times \frac{1}{5} = 81 \Rightarrow x = 81 \times 5 = 405$   
 $\therefore \frac{x \times 68}{100} = \frac{405 \times 68}{100}$   
 $x = 275.4$
14. (c) The LCM of 18, 22, 30 is 990.  
 So, they will meet each other after 990, i.e. 16 min and 30 sec.
15. (b) Time taken
- |   |            |
|---|------------|
| 2 | 18, 24, 32 |
| 2 | 9, 12, 16  |
| 2 | 9, 6, 8    |
| 3 | 9, 3, 4    |
|   | 3, 1, 4    |
- $2 \times 2 \times 2 \times 3 \times 3 \times 4 = 288$  sec
16. (d) The required number must be a factor of  $(11284 - 7655)$  or 3629.  
 Now,  $3629 = 19 \times 191$   
 $\therefore 191$  is the required number.
17. (c) The required number =  $\frac{\text{LCM} \times \text{HCF}}{\text{First number}} = \frac{2079 \times 27}{189} = 297$
18. (a) Clearly, the required number must be greater than the LCM of 18, 24, 30 and 42 by 1.  
 Now,  $18 = 2 \times 3^2$   
 $24 = 2^3 \times 3$   
 $30 = 2 \times 3 \times 5$   
 $42 = 2 \times 3 \times 7$   
 $\therefore \text{LCM} = 3^2 \times 2^3 \times 5 \times 7 = 2520$   
 $\therefore$  the required number =  $2520 + 1 = 2521$
19. (a) The LCM of 6, 7, 8, 9 and 10 = 2520  
 The greatest number of 6 digits = 999999  
 Dividing 999999 by 2520, we get 2079 as remainder. Hence, the 6-digit number divisible by 2520, is  $(999999 - 2079)$ , or 997920.  
 Since  $6 - 4 = 2, 7 - 5 = 2, 8 - 6 = 2, 9 - 7 = 2, 10 - 8 = 2$ , the remainder in each case is less than the divisor by 2.  
 $\therefore$  the required number =  $997920 - 2 = 997918$
20. (b) The LCM of 9, 10 and 15 = 90  
 On dividing 1936 by 90, the remainder = 46  
 But 7 is also a part of this remainder.  
 $\therefore$  the required number =  $46 - 7 = 39$
21. (a) LCM of 32, 36, 48, 54 = 864  
 $\therefore$  the required greatest number =  $10,000 - 864 = 9,136$
22. (b) The least number which, when divided by 8, 12 and 16, leaves 3 as remainder =  $(\text{LCM of } 8, 12, 16) + 3 = 48 + 3 = 51$   
 Other such numbers are  $48 \times 2 + 3 = 99, 48 \times 3 + 3 = 147,$   
 $\therefore$  the required number which is divisible by 7 is 147.
23. (b) Let  $x$  be the remainder, then the numbers  $(55 - x), (127 - x)$  and  $(175 - x)$  are exactly divisible by the required number.  
 Now, we know that if two numbers are divisible by a certain number, then their difference is also divisible by the number. Hence the numbers  $(127 - x) - (55 - x), (175 - x) - (127 - x)$  and  $(175 - x) - (55 - x)$  or, 72, 48 and 120 are divisible by the required number. HCF of 48, 72 and 120 = 24, therefore the required number = 24.
24. (d) LCM of 8, 12 and 16 = 48. Such numbers are  $(48 \times 1 + 3) = 51, (48 \times 2 + 3) = 99,$  which is divisible by 11.  
 $\therefore$  the required number = 9.
25. (d) LCM of 42, 49, 56, 63 = 3528; therefore, the required least number =  $3528 - 3500 = 28$
26. (a)  $72 - 52 = 20, 80 - 60 = 20, 88 - 68 = 20.$  We see that in each case, the remainder is less than the divisor by 20. The LCM of 72, 80 and 88 = 7920, therefore, the required number  $7920 - 20 = 7900$
27. (a) The greatest number of 4 digits = 9999. LCM of 2, 3, 4, 5, 6, 7 = 420  
 On dividing 9999 by 420, we get 339 as remainder.  
 $\therefore$  the greatest number of 4 digits which is divisible by 2, 3, 4, 5, 6 and 7 =  $9999 - 339 = 9660$   
 $\therefore$  the required number =  $9660 + 1 = 9661$
28. (b) LCM of 48, 72, 108 = 432  
 the traffic lights will change simultaneously after 432 seconds or 7 min = in 12 secs.  
 $\therefore$  they will change simultaneously at 8 : 27 : 12 hrs.
29. (d) The first number =  $2 \times 44 = 88$   
 $\therefore$  The second number =  $\frac{\text{HCF} \times \text{LCM}}{88} = \frac{44 \times 264}{88} = 132$
30. (b) HCF = 12. Then let the numbers be  $12x$  and  $12y.$   
 Now  $12x \times 12y = 2160 \therefore xy = 15$   
 Possible values of  $x$  and  $y$  are  $(1, 15); (3, 5); (5, 3); (15, 1)$   
 $\therefore$  the possible pairs of numbers  $(12, 180)$  and  $(36, 60)$
31. (a) The required numbers should be multiples of 144. We have the greatest number of 4 digits = 9999. On dividing 9999 by 144, we get 63 as the remainder.  
 $\therefore$  required greatest number of 4 digits =  $9999 - 63 = 9936$   
 Again, we have the least number of 5 digits = 10000  
 On dividing 10,000 by 144, we get 64 as the remainder.  
 $\therefore$  the required least number of 5 digits =  $10,000 + (144 - 64) = 10,080$
32. (a) The required number = LCM of 12, 18, 32, 40 = 1440
33. (a) LCM of 32, 36 and 40 = 1440, therefore, the required number =  $1440 - 8 = 1432$
34. (c) Bells will toll together again at a time, which is obtained by taking L.C.M. of their individual tolling intervals.  
 L.C.M. of 9, 12 and 15 = 180 min  
 They will toll together again after 180 min, i.e. 3 hours.  
 Time =  $8 + 3 = 11$  a.m.

35. (b) Since each rod must be cut into parts of equal length and each part must be as long as possible, so HCF should be taken.  
 HCF of 78, 104, 117 and 169 = 13.  
 No. of parts from 78cm. rod =  $\frac{78}{13} = 6$   
 No. of parts from 104 cm. rod =  $\frac{104}{13} = 8$   
 No. of parts from 117 cm. rod =  $\frac{117}{13} = 9$   
 No. of parts from 169 cm. rod =  $\frac{169}{13} = 13$ .  
 $\therefore$  Maximum no. of pieces = 6 + 8 + 9 + 13 = 36

19. (c)  $(74 \times \sqrt{676}) - 42 \times \sqrt{?} = 496$   
 $\sqrt{?} = \frac{(74 \times 26 - 496)}{42} = 1428 \div 42 = 34 = (34)^2 = 1156$   
 20. (b)  $? = (41)^2 + (38)^2 \times (0.15)^2$   
 $1681 + 1444 \times 0.0225 = 1681 + 32.49 = 1713.49$   
 21. (e) 312  
 22. (e)  $?^2 = 2\sqrt{48 \times 8} = -21 + 8 + 49 - 14\sqrt{8}$   
 $= 14\sqrt{8} - 21 + 57 - 14\sqrt{8} = 36 = 6^2$   
 $\therefore ? = 6$   
 23. (e)  $7365 + 29.16 + \sqrt{?} = 7437.16$   
 $\sqrt{?} = 473.16 - 7394.16$   
 $\sqrt{?} = 43 = 1849$

**SPEED TEST 3**

1. (a)  $\frac{1190}{\sqrt{7225}} \times ? = 3094$  or,  $\frac{1190 \times ?}{85} = 3094$   
 or,  $? = \frac{3094 \times 85}{1190} = 221$   
 2. (a)  $\therefore ? - 2\sqrt{5} = (\sqrt{5} - 1)^2 = 5 + 1 - 2\sqrt{5}$   
 $\therefore ? = 6$   
 3. (a)  $\frac{?}{\sqrt{36}} = \frac{\sqrt{25}}{(11 \times 3 - 18)} \Rightarrow \frac{?}{6} = \frac{5}{33 - 18} = \frac{5}{15} = \frac{1}{3}$   
 $\therefore ? = 2$   
 4. (c)  
 5. (e)  $169 - 25 - 26 + 7 = (?)^2 = 125 = ?^2 \Rightarrow ? = \sqrt{125} = 5\sqrt{5}$   
 6. (e)  $(16)^2 - 5^3 + \sqrt{169} = (?)^2$   
 $256 - 125 + 13 = (?)^2$   
 $144 = (?)^2$   
 $? = \pm 12$   
 7. (b)  $? = \sqrt{225} + \sqrt{2304} + (12)^2 = 15 + 48 + 144 = 207$   
 8. (b)  $? = \sqrt{450 + 890 + 685} = \sqrt{2025} = 45$   
 9. (c)  $? = (6859)^{1/3} + 4 = 19 + 4 = 23$   
 10. (e)  $? = \sqrt{7 \times \frac{447}{21} + 73 - 26} = \sqrt{149 + 73 - 26} = \sqrt{196} = 14$   
 11. (c)  $\sqrt{\frac{444}{37}} + 15 + 11 \times ? = 7$   
 $\Rightarrow 12 + 15 + 11 \times ? = 49 \Rightarrow 11 \times ? = 49 - 27 = 22$   
 $\therefore ? = \frac{22}{11} = 2$   
 12. (d)  $? = 5 \times \left(\frac{60 - 40}{2}\right) = 5 \times \frac{20}{2} = 50$   
 13. (d)  $\sqrt{?} = 4^2 = 16$   
 $\therefore ? = 256$   
 14. (b)  $(?)^2 = \frac{255}{17 \times 5} = 3 \therefore ? = \sqrt{3}$   
 15. (d)  $(?)^2 = 80 + \frac{9 \times 16 \times 5}{36} = 80 + 20 = 100$   
 $\therefore ? = \sqrt{100} = 10$   
 16. (a)  $? = (\sqrt{6} + 1)^2 - 2\sqrt{6} = 6 + 1 + 2\sqrt{6} - 2\sqrt{6} = 7$   
 17. (c)  $\sqrt{12 \times \frac{184}{23} + 26 - 73} = ?$   
 $= \sqrt{96 + 26 - 73} = ? = \sqrt{122 - 73} = \sqrt{49} = 7$   
 18. (b)  $169 - 64 - \sqrt{676} + 2 = (?)^2$   
 $= 169 - 64 - 26 + 2 = (?)^2 = 171 - 90 = 81$   
 $\therefore ? = 9$

24. (b)  $\left(\frac{756 \times 67}{804}\right)^3 = 250047$   
 25. (c)  
 26. (d)  
 27. (d)  $? = \frac{\{(56)^2 + (44)^2\}}{16} = \frac{[(56)^2 + (44)^2]}{(4)^2}$   
 $= \left(\frac{56}{4}\right)^2 + \left(\frac{44}{4}\right)^2 = 14^2 + 11^2 = 196 + 121 = 317$   
 28. (b)  $\sqrt{17 + \sqrt{51} + \sqrt{152} + \sqrt{289}}$   
 $= \sqrt{17 + \sqrt{51} + \sqrt{152 + 17}} = \sqrt{17 + \sqrt{51} + \sqrt{169}}$   
 $= \sqrt{17 + \sqrt{51} + \sqrt{13}} = \sqrt{17 + 8} = \sqrt{25} = 5$   
 29. (d)  $\sqrt{217 + \sqrt{64}} \Rightarrow \sqrt{217 + 8} = \sqrt{225} = 15$   
 30. (a)  
 31. (b)  $\sqrt{3100} \times \sqrt{567} \div \sqrt{250} = ? \div 8$   
 $\Rightarrow 56 \times 24 \div 16 \approx ? \div 8 \Rightarrow \frac{56 \times 24}{16} \approx \frac{?}{8}$   
 $\Rightarrow ? = \frac{56 \times 24 \times 8}{16} \approx 672$   
 $\therefore$  required answer = 670  
 32. (c)  $73.86 \times 46.04 \div 21.44 = ?$   
 $? = 74 \times 46 \div 22$   
 $? = 154.7 \approx 160$   
 33. (e)  $(45)^2 < 2230 < (50)^2$   
 34. (a)  $? = \frac{(\sqrt{7921} - \sqrt{2070.25}) \times \frac{1}{4}}{4}$   
 $= \frac{(89 - 45.5)}{4} = \frac{43.5}{4} \approx \frac{44}{4} = 11$   
 35. (e)  
 36. (d)  $\sqrt{\frac{210.25}{100}} + \sqrt{\frac{21025}{10000}} \Rightarrow \frac{14.5}{10} + \frac{145}{100} \Rightarrow 14.5 + 1.45 = 15.95$   
 37. (a) 

4	2000	45
4	16	
85	400	
5	425	
	-25	

  
 Clearly, the required least number is 25.  
 38. (b) Let the number be x.  
 Now, according to the question,  
 $x^2 - (22)^3 = 9516$   
 or,  $x^2 = 9516 + (22)^3 = 9516 + 10648 = 20164$   
 $\Rightarrow x = \sqrt{20164} = 142$   
 39. (a) Let the number be x.  
 According to the question,  
 $(4052 - x^2) \times 15 = 41340$   
 $\Rightarrow 4052 - x^2 = \frac{41340}{15} = 2756 \Rightarrow x^2 = 4052 - 2756 = 1296$   
 $\therefore x = \sqrt{1296} = 36$

40. (a) Number of rows =  $\sqrt{34969}$

	187
1	34969
	1
28	249
	224
367	2569
	2569
	x

$\Rightarrow \sqrt{34969} = 187$

Hence, the number of rows = 187

**SPEED TEST 4**

1. (b)  $76\%$  of 1285 =  $35\%$  of 1256 + ?  
 $\Rightarrow 976.6 = 439.6 + ? \Rightarrow 976.6 - 439.6 = ?$   
 $\therefore ? = 537$

2. (b)  $(21.5\%$  of 999) $^{1/3} + (43\%$  of 601) $^{1/2} = ?$   
 $(1000 \times 21.5\%)^{1/3} + (600 \times 43\%)^{1/2} = ?$   
 $(215)^{1/3} + (258)^{1/2} = ?$   
 $(216)^{1/3} + (256)^{1/2} = ?$   
 $(6)^3 \times 1/3 + (16)^2 \times 1/2 = ?$   
 $6 + 16 = ?$   
 $? = 22$

3. (a)  $64.5\%$  of 800 +  $36.4\%$  of 1500 =  $(?)^2 + 38$   
 $516 + 546 = (?)^2 + 38$   
 $1062 - 38 = (?)^2$   
 $1024 = (?)^2$   
 $(32)^2 = (?)^2$   
 $? = 32$

4. (c)  $41\%$  of 601 - 250.17 = ? -  $77\%$  of 910  
 $\approx 246 - 250 = ? - 701$   
 $\approx 701 + 246 - 250 = ?$   
 $\approx 700 = ?$

5. (a)  $40.005\%$  of 439.998 +  $?\%$  of 655.011 = 228.5  
 $\approx \frac{40}{100} \times 440 + \frac{x}{100} \times 655 = 229$   
 $\approx 176 + \frac{655x}{100} = 229 \approx \frac{655x}{100} = 229 - 176$   
 $x = \frac{53 \times 100}{655} \approx 8$

6. (d)  $25\%$  of 84 +  $24\%$  of 85 = ?  
 $21 \times 204 = ?$   
 $428.4 = ?$

7. (b)  $20.06\%$  of 599 +  $10.01\%$  of 901 = ?  
 $\approx 600 \times \frac{20}{100} + 900 \times \frac{10}{100} = ?$   
 $\approx 120 + 90 = ?$   
 $\therefore ? \approx 210$

8. (a)  $14.2\%$  of 5500 +  $15.6\%$  of ? = 1795  
 $781 + \frac{15.6}{100} \times ? = 1795$   
 $\frac{15.6}{100} \times ? = 1014$   
 $? = \frac{1014 \times 100}{15.6} = 6500$

9. (e)  $36\%$  of 245 -  $40\%$  of 210 = 10 - ?  
 $88.2 - 84 = 10 - ?$   
 $4.2 = 10 - ?$   
 $? = 10 - 4.2 = 5.8$

10. (a)  $\frac{1}{2}$  of 3842 +  $15\%$  of ? = 2449  
 $1921 + x + \frac{15}{100} = 2449$

$x \times \frac{15}{100} = 2449 - 1921$

$x = \frac{528 \times 100}{15} = 3520$

11. (c)  $57\%$  of 394 -  $2.5\%$  of 996  
 $= 394 \times \frac{57}{100} - 996 \times \frac{2.5}{100}$   
 $= 225 - 25 = 200$

12. (a)  $40\%$  of 265 +  $35\%$  of 180 =  $50\%$  of ?  
 $\Rightarrow 265 \times 0.4 + 180 \times 0.35 = ? \times 0.5$   
 $\Rightarrow 106 + 63 = ? \times 0.5 \Rightarrow ? = \frac{169}{0.5} = 338$

13. (b)  $4\frac{1}{5} \times 3\frac{1}{3} + ? = 20\%$  of 120  $\Rightarrow \frac{21}{5} \times \frac{10}{3} + ? = 120 \times 0.2$   
 $\Rightarrow 7 \times 2 + ? = 24 \Rightarrow ? = 10$

14. (c)  $14\%$  of  $250 \times ?$  of 150 = 840  
 $250 \times \frac{14}{100} \times \frac{150 \times ?}{100} = 840$   
 $35 \times 1.5 \times ? = 840$   
 $? = \frac{840}{35 \times 15}$   
 $? = 16$

15. (b)  $? = 609 \times \frac{18}{100} + 450 \times \frac{27.5}{100}$   
 $= 109.62 + 123.75 = 233.37 \approx 233$

16. (c)  $3060 \times \frac{125}{100} - ? \times \frac{85}{100} = 408$   
 $3825 - 408 = ? \times \frac{85}{100}$   
 $\frac{3417 \times 100}{85} = ?$   
 $4020 = ?$

17. (d)  $500 \times \frac{x}{100} = 300 \times \frac{y}{100}$   
 $\Rightarrow 5x = 3y$   
 $\Rightarrow y = \frac{5x}{3}$  .... (i)  
 $\Rightarrow \frac{xy \times 200}{100 \times 100} = 60 \Rightarrow xy = 3000$

$\Rightarrow x \times \frac{5x}{3} = 3000 \quad \left[ \because y = \frac{5x}{3} \right]$

$\Rightarrow 5x^2 = 3000 \times 3 \Rightarrow x^2 = \frac{3000 \times 3}{5}$

$\Rightarrow x^2 = 1800$   
 $\Rightarrow x = \sqrt{1800} = \sqrt{2 \times 3 \times 3 \times 10 \times 10}$   
 $x = 30\sqrt{2}$

18. (d)  $400 \times \frac{185}{100} + 240 \times \frac{35}{100} = 1648 \times \frac{?}{100}$   
 $\Rightarrow 740 + 84 = 1648 \times \frac{?}{100} \Rightarrow 824 = 1648 \times \frac{?}{100}$   
 $\Rightarrow ? = \frac{824 \times 100}{1648}$  or  $? = 50$

19. (a) Let the investment by Raghu = x  
then Mohit =  $x \times \frac{90}{100} = \frac{9x}{10}$   
Pradeep =  $\frac{9x}{10} \times \frac{120}{100} = \frac{108x}{100}$

According to question,  $x + \frac{9x}{10} + \frac{108x}{100} = 17880$

$\frac{100x + 90x + 108x}{100} = 17880$  or  $\frac{298x}{100} = 17880$  or  $x = 6000$

20. (d) Number of girls in a college =  $2000 \times \frac{36}{100} = 720$   
 Then, boys =  $2000 - 720 = 128$   
 Each girl's monthly fees =  $480 \times \frac{75}{100} = ₹ 360$   
 Hence, total amount of fees both boys and girls =  $(1280 \times 480 + 720 \times 360) = ₹ 873600$
21. (b) Ravi's annual salary = 1.44 lacs  
 $\therefore$  Monthly salary =  $\frac{1.44 \times 100000}{12} = 12000$   
 Monthly salary of Raj =  $12000 \times \frac{60}{100} = 7200$   
 Suppose annual salary of Anuj = x  
 then  $x \times \frac{20}{100} = 7200 \times 12 \times \frac{75}{100}$   
 $x = 324000$   
 Anuj's monthly salary =  $324000 \div 12 = 27000$
22. (b) Suppose total student = 100  
 interested in playing =  $100 \times 12\% = 12$  students  
 interested in dancing =  $100 \times \frac{3}{4} = 75$  students  
 interested in singing =  $100 \times 10\% = 10$  students  
 Remaining =  $100 - (12 + 75 + 10) = 3$  students  
 Whereas remaining = 15 students  
 $\therefore$  Total students =  $\frac{100}{3} \times 15 = 500$
23. (b) Suppose the expense of Vimal = ₹ 100  
 Expense of Aman = ₹ 130  
 Expense of Raman =  $\frac{100}{90} \times 100 = ₹ \frac{1000}{9}$   
 $\therefore$  Ratio of the expense of Vimal, Aman and Raman  
 =  $100 : 130 : \frac{1000}{9} = 90 : 117 : 100$   
 So, the expense of Aman  
 =  $\frac{117}{90+117+100} \times 6447 = \frac{117}{307} \times 6447 = ₹ 2457$
24. (c) Suppose maximum marks = x  
 then  $x \times \frac{35}{100} = 40 + 30 \Rightarrow x \times \frac{35}{100} = 70$   
 $\Rightarrow x = \frac{70 \times 100}{35} = 200$  marks
25. (b)  $? = 630 \times \frac{2}{3} \times \frac{50}{100} \times \frac{25}{100}$   
 $\Rightarrow ? = \frac{210 \times 50 \times 25 \times 2}{100 \times 100} \Rightarrow ? = \frac{210}{4} = 52.5$
26. (c) Suppose the monthly income of Natasha is ₹ x.  
 $x \times \frac{60}{100} \times \frac{45}{100} = 11475$   
 $\Rightarrow x = \frac{11475 \times 100 \times 100}{60 \times 45} = \frac{11475 \times 100 \times 100}{2700}$   
 $x = ₹ 42500$
27. (d) Suppose Income of B = ₹ x  
 Income of A =  $\frac{150}{100} \times x = ₹ \frac{3x}{2}$   
 Income of C =  $\frac{120}{100} \times \frac{3x}{2}$   
 $\frac{6}{5} \times \frac{3x}{2} = \frac{9x}{5}$

- $\therefore x + \frac{3x}{2} + \frac{9x}{5} = 86000$   
 $\frac{10x + 15x + 18x}{10} = 86000$   
 $43x = 860000$   
 $x = 20000$   
 So, income of C =  $\frac{9}{5} \times 20000 = ₹ 36000$
28. (b) Total expenses =  $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{20} = \frac{20+10+5+2}{40} = \frac{37}{40}$   
 Saving = ₹ 900  
 Total monthly income =  $\frac{\text{Saving}}{1 - \text{Total expense}}$   
 =  $\frac{900}{\left(1 - \frac{37}{40}\right)} = \frac{900}{\frac{3}{40}} = \frac{900}{3} \times 40 = ₹ 12000$
29. (e) Weight of water in the mixture of 60 g water =  $60 \times \frac{75}{100} = 45$ g  
 weight of water in the mixture of 45 g water =  $45 + 15 = 60$  g  
 $\therefore$  Percentage of water =  $\frac{60 \times 100}{75} = 80\%$
30. (b) Let the original numbers be x and y and their product be xy.  
 Product of  $\frac{1}{3}$ rd of x and 150% of y =  $\frac{x}{3} \times \frac{3}{2} y = \frac{xy}{2}$   
 Required answer =  $\frac{xy}{2 \times xy} \times 100 = 50\%$

**SPEED TEST 5**

1. (e) Working with options, we have
- |     | Original number | New number | Difference |
|-----|-----------------|------------|------------|
| (a) | 22              | 34         | 12         |
| (b) | 63              | 96         | 33         |
| (c) | 24              | 38         | 14         |
| (d) | 25              |            |            |
- Obviously, (e) is the correct option.
2. (c) Let the number of boys be x. Then, the number of girls = (x+15)  
 New number of girls =  $(x+15) \times 1.1$   
 New number of boys =  $x \times 1.16$   
 Then,  $1.1(x+15) = 1.16x + 9$   
 $\Rightarrow 1.16x - 1.1x = 16.5 - 9 = 7.5$   
 or  $0.06x = 7.5$  or  $x = \frac{7.5}{0.06} = 125$   
 Number of boys = 125  
 Number of girls = 140  
 $\Rightarrow$  Number of students = 265
3. (b) Let the original number be 100.  
 Then, the new number =  $100 \times 1.1 \times 0.9 = 99$   
 i.e. the number decreases by 1%.
4. (b) The net annual increase = 5%.  
 Let the initial population be 100.  
 Then, population after 2 years =  $100 \times 1.05 \times 1.05 = 110.25$   
 Therefore, % increase in population =  $(110.25 - 100) = 10.25\%$
5. (d) Let the total no. of parts produced at initial stage be 100.  
 Then after three successive percentage rejections of 10%, 5% and 2%, we have  
 $100 \times 0.9 \times 0.95 \times 0.98 = 83.79$   
 Therefore, a single effective rejection rate.  
 =  $100 - 83.79 = 16.21$

6. (b)  $40\%$  of boys =  $\frac{20}{2} \Rightarrow 40\%$  of boys = 10 girls  
Total no. of boys = 25  
 $\therefore$  Total number of students =  $25 + 20 = 45$
7. (b)  $15\%$  of  $40\% = 6\%$
8. (c)  $\left. \begin{array}{l} 20\% \text{ of } 75\% = 15\% \\ 80\% \text{ of } 25\% = 20\% \end{array} \right\} \longrightarrow 35\% \text{ temporary.}$   
 $\therefore$  Total workers =  $\frac{126}{35} \times 100 = 360$
9. (d) Only option (d) has difference of 308 and only 2914 is divisible by 47.
10. (c) Let he should score in second paper be  $x$   
According to question  
 $30\%$  of 180 +  $x\%$  of 150 =  $50\%$  of (180 + 150)  
 $\Rightarrow 54 + x\%$  of 150 = 165  
 $\Rightarrow x\%$  of 150 = 111  
 $\Rightarrow x = \frac{111 \times 100}{150} = 74\%$
11. (d) Let the price of petrol be 1  
Increase in price =  $25\% = \frac{1}{4}$   
 $\therefore$  New price of petrol =  $1 + \frac{1}{4} = \frac{5}{4}$  of original price  
Let the expenditure be 1 and owner also wants to expend 1 (or Rs. 100)  
 $\therefore$  New quantity with the same amount =  $\frac{4}{5}$  of original quantity  
 $\therefore$  Decrease in quantity =  $1 - \frac{4}{5} = \frac{1}{5} = 20\%$   
Hence, owner must reduce 20% consumption of petrol
12. (c) Total marks = 180 + 150 = 330  
Student gets 30% in 1st paper out of 180 and gets at least 50% marks overall.  
i.e.,  $330 \times \frac{50}{100} = 165$  marks overall.  
Let he scores  $x$  marks out of 150 in IInd paper.  
 $\therefore$  According to the question :  
 $165 - 180 \times \frac{30}{100} = x \Rightarrow x = 111$  marks.  
Thus,  $\frac{111}{150} \times 100 = 74\%$  marks  
 $\therefore$  He should get 74% marks in IInd paper.
13. (c) Total Tractor = 29400  
i.e., Mahindra + non Mahindra = 29400  
Given : Mahindra tractor = 15000  
 $\therefore$  Non-Mahindra tractor =  $29400 - 15000 = 14400$   
Now, 53% of 29400 = Red Mahindra + Red Non-Mahindra  
 $\Rightarrow 29400 \times \frac{53}{100} = 15582$ .  
Thus, Red Mahindra + Red Non-Mahindra = 15582  
Now, Non-Red Mahindra =  $15582 - \frac{98 \times 15000}{100}$   
 $= 15582 - 14700 = 882$ .  
 $\therefore$  % non-Red Mahindra =  $\frac{882}{14400} \times 100 = 6.125\%$
14. (b) Let  $x$  be the total grown quantity of wheat.  
 $\therefore$  According to the question  
 $(7\% \text{ of } x) + 6 = \left(\frac{31}{4}\% \text{ of } x\right) + 3$   
 $\Rightarrow \frac{7x}{100} + 6 = \frac{31x}{400} + 3 \Rightarrow 3 = \left(\frac{31-28}{400}\right)x$   
 $\Rightarrow \frac{1200}{3} = x \Rightarrow 400$  million tonnes wheat grown.
15. (d) Increase in Area =  $10 + 20 + \frac{10 \times 20}{100} = 30 + \frac{200}{100} = 32\%$   
Hence, there will be 32% change in the cost of the plot.
16. (a) Let  $x\%$  marks obtained by Rajesh.  
Given: Sushant's marks = 1080.  
Mohit's Marks =  $1080 + 1080 \times \frac{1}{5} = 1296$  ... (1)  
Also, Mohit's marks =  $x - \frac{x}{10} = \frac{9x}{10}$  ... (2)  
From (1) and (2), we have,  $\frac{9x}{10} = 1296 \Rightarrow x = 1440$ .  
But given full marks are 2000  
 $\therefore x\% = \frac{1440}{2000} = 72\%$ .
17. (a) Let the quantity of hematite mixed =  $x$  kg.  
Now, 20% of the ore gets wasted.  
 $\therefore$  Remaining ore =  $80\% = \frac{80x}{100}$   
Now, pure iron =  $\left(\frac{80x}{100}\right) \times \frac{25}{100} = \frac{2000x}{10000} = \frac{x}{5}$   
But given pure iron in a year = 80,000 kg.  
 $\therefore \frac{x}{5} = 80,000 \Rightarrow x = 400,000$  kg.
18. (d) Population after 1st year =  $\frac{110}{100} \times 10,000 = 11000$   
Population after 2nd year =  $11000 \times \frac{120}{100} = 13200$   
Population after 3rd year =  $13200 \times \frac{95}{100} = 12,540$   
Hence, population after 3rd year = 12,540.
19. (b) His height was = 5 feet 5 inch =  $5 + 60 = 65$  feet.  
Required % correction =  $\frac{65 \times (1.25 - 1)}{65 \times 1.25} \times 100 = 20$
20. (a) Total votes = 6000  
Invalid votes = 25% of 6000  
 $\therefore$  Valid votes = 75% of 6000 = 4500  
Bhiku gets = 65% of 4500 = 2925 votes  
 $\therefore$  Mhatre gets =  $4500 - 2925 = 1575$  votes.
21. (e)  $\frac{32}{100} \times 260 = 83.2 \approx 83$
22. (d)  $\frac{0.5 \times ?}{100} = \frac{4.78 \times 1255}{100} + \frac{3.24 \times 440}{100} = 59.989 + 14.256$   
 $\therefore ? = \frac{74.245 \times 100}{0.5} = 14849$
23. (b)  $? = \frac{35 \times 3365}{100} + \frac{8900}{42} \approx 1178 + 212 = 1390$
24. (a)  $? = \frac{1782.55}{179} = 9.958 \approx 10$
25. (e)  $? = \frac{84 \times 1845}{100} + \frac{24 \times 178}{100}$   
 $= 1549.8 + 42.72 = 1592.52 \approx 1590$ .
26. (e)  $? \approx \frac{25 \times 1080}{100} + \frac{180 \times 670}{100} \approx 270 + 1206 = 1476 \approx 1475$
27. (b)  $? = \frac{60}{100} \times \left(\frac{2920}{13} + \frac{10375}{18}\right)$   
 $\approx \frac{60}{100} \times (225 + 575) = \frac{60 \times 800}{100} = 480$
28. (b)  $? = (23.6\% \text{ of } 1254) - (16.6\% \text{ of } 834)$   
 $295.944 - 138.444 = 157.5$
29. (a)  $? \approx 140\% \text{ of } 12300 = \frac{140 \times 12300}{100} = 17220 \approx 17000$
30. (b) Approx value =  $450 \times \frac{22}{100} = 99 \approx 100$

**SPEED TEST 6**

1. (c)  $(4 \times 4)^3 \div (512 \div 8)^4 \times (32 \times 8)^4 = (2 \times 2)^{?+4}$   
 $\Rightarrow (16)^3 \div (64)^4 \times (256)^4 = (4)^{?+4}$   
 $\Rightarrow (4)^{2 \times 3} \div (4)^{3 \times 4} \times (4)^{4 \times 4} = (4)^{?+4}$   
 $\Rightarrow (4)^6 \div (4)^{12} \times (4)^{16} = (4)^{?+4}$   
 $\Rightarrow (4)^{6-12+16} = (4)^{?+4} \Rightarrow (4)^{10} = (4)^{?+4} \Rightarrow 10 = ?+4$   
 $\therefore ? = 6$

2. (d)  $(0.125)^3 \div (0.25)^2 \times (0.5)^2 = (0.5)^{? - 3}$   
 $\Rightarrow (0.5)^3 \times 3 \div (0.5)^2 \times 2 \times (0.5)^2 = (0.5)^{? - 3}$   
 $\Rightarrow (0.5)^9 \div (0.5)^4 \times (0.5)^2 = (0.5)^{? - 3}$   
 $\Rightarrow (0.5)^{9-4+2} = (0.5)^{? - 3} \Rightarrow 9-4+2 = ? - 3$   
 $\therefore ? = 10$

3. (d)  $(16 \times 4)^3 \div (4)^5 \times (2 \times 8)^2 = (4)^?$   
 $\Rightarrow (64)^3 \div (4)^5 \times (16)^2 = (4)^? \Rightarrow (4)^{3 \times 3} \div (4)^5 \times (16)^2 = (4)^?$   
 $\Rightarrow (4)^9 \div (4)^5 \times (4)^4 = (4)^? \Rightarrow (4)^{9-5+4} = (4)^?$   
 $\therefore ? = 8$

4. (e)  $(?)^2 \times (12)^2 \div (4 \times 8)^2 = 81$   
 $\frac{(?)^2 \times 12 \times 12}{48 \times 48} = 81$   
 $(?)^2 = 81 \times 16 = (9 \times 4)^2$   
 $\therefore ? = 36$

5. (b)  $(0.064) \times (0.4)^7 = (0.4)^? \times (0.0256)^2$   
 $(0.4)^3 \times (0.4)^7 = (0.4)^? \times (0.4)^{4 \times 2}$   
 $(0.4)^{3+7} = (0.4)^? \times (0.4)^8$   
 $\frac{(0.4)^{10}}{(0.4)^8} = (0.4)^?$   
 $(0.4)^{10-8} = (0.4)^?$   
 $2 = ?$

6. (c)  $9^3 \times 81^2 \div 27^3 = (3)^?$   
 $3^2 \times 3 \times 3^4 \times 2 \div 3^3 \times 3 = (3)^?$   
 $3^6 \times 3^8 \div 3^9 = (3)^? \text{ or } 3^{6+8-9} = (3)^?$   
 $3^5 = (3)^? \text{ or } ? = 5$

7. (a)  $? = \frac{343 \times 49}{216 \times 16 \times 81}$   
 $? = \frac{7^3 \times 7^2}{6^3 \times 2^4 \times 3^4} = \frac{7^5}{6^3 \times 6^4} = \frac{7^5}{6^7}$

8. (c)  $(\sqrt{9})^3 \times (\sqrt{81})^5 \div (27)^3 = (3)^{(?)}$   
 $(3)^3 \times (9)^5 \div (3)^3 \times 2 = (3)^? \text{ or } (3)^3 \times (3)^2 \times 5 \div (3)^6 = (3)^?$   
 $(3)^{3+10-6} = (3)^? \text{ or } (3)^7 = (3)^?$   
 $? = 7$

9. (e)  $8^{1.1} \times 4^{2.7} \times 2^{3.3} = 2^?$   
 $2^? = (2^3)^{1.1} \times (2^2)^{2.7} \times 2^{3.3} \text{ or } 2^? = (2)^{3.3} \times (2)^{5.4} \times 2^{3.3}$   
 $2^? = (2)^{3.3+5.4+3.3} \text{ or } 2^? = (2)^{12.0}$   
 $? = 12$

10. (d)  $? = \frac{16 \times 32}{9 \times 27 \times 81} = \frac{2^4 \times 2^5}{3^2 \times 3^3 \times 3^4} = \frac{(2)^{4+5}}{(3)^{2+3+4}} = \left(\frac{2}{3}\right)^9$

11. (a)  $? = (49)^3 \div (7)^2 = \frac{49 \times 49 \times 49}{7 \times 7} = 2401$

12. (a)  $64^{3.1} \times 8^{4.3} = 8^?$   
 $\Rightarrow (8^2)^{3.1} \times (8)^{4.3} = 8^? \Rightarrow 8^{6.2} \times 8^{4.3} = 8^?$   
 $\Rightarrow 8^{6.2+4.3} = 8^? \Rightarrow 8^{10.5} = 8^?$   
 $? = 10.5$

13. (d)  $8^? = 8^7 \times 2^6 \div 8^{2.4}$   
 $8^? = 8^7 \times \frac{8^2}{8^{2.4}} \text{ or } 8^? = 8^{7+2-2.4}$   
 $8^? = 8^{6.6} \text{ or } ? = 6.6$

14. (c)  $? = (27)^{18} \div (27)^3 = (27)^{18-3}$   
 $= (27)^{15} (\because a^m \div a^n = a^{m-n})$

15. (a)  $? = (31)^{31} \times (31)^{-27}$   
 $? = (31)^{31-27}$   
 $? = (31)^4$   
 $? = (961)^2$

16. (e)  $\frac{\{(12)^{-2}\}^2}{\{(12)^2\}^{-2}} = \frac{(12)^{-4}}{(12)^{-4}} = 1$

17. (e)  $\frac{81^{2.5} \times 9^{4.5}}{3^{4.8}} = 9^?$   
 $\Rightarrow \frac{(3^4)^{2.5} \times (3^2)^{4.5}}{3^{4.8}} = 9^? \Rightarrow \frac{3^{10} \times 3^9}{3^{4.8}} = 9^?$   
 $\Rightarrow 3^{10+9-4.8} = 9^? \Rightarrow 3^{14.2} = 3^{2 \times ?}$

$\Rightarrow 2 \times ? = 14.2 \Rightarrow ? = \frac{14.2}{2} = 7.1$

18. (c)  $\frac{17^{3.5} \times 17^{7.3}}{17^{4.2}} = 17^? \Rightarrow 17^? = 17^{3.5+7.3-4.2} = 17^{6.6}$   
 $\therefore ? = 6.6$

19. (c)  $\frac{6^4 \times 6^4}{6^3} = 6^? \Rightarrow 6^{8-3} = 6^? \Rightarrow 6^? = 6^5 \Rightarrow ? = 5$

20. (e)  $\frac{(5)^{2 \times 2.7} \times 5^{4.2}}{5^{5.4}} = 5^{2 \times ?} \text{ or } \frac{5^{5.4} \times 5^{4.2}}{5^{5.4}} = 5^{2 \times ?}$   
 $\text{or, } 5^{5.4+4.2-5.4} = 5^{2 \times ?} \text{ or } 2 \times ? = 4.2$   
 $\therefore ? = \frac{4.2}{2} = 2.1$

21. (c)  $8^? = (\sqrt{8})^6 \times (64)^3 \div 8^4 = 8^3 \times 8^6 \div 8^4 = 8^{3+6-4} = 8^5$   
 $\therefore ? = 5$

22. (d)  $(3)^{3.5} \times (3^2)^{2.2} \div 3^3 = (3)^?$   
 $\Rightarrow 3^{3.5+4.4-3} = 3^? \Rightarrow 3^{4.9} = 3^? \Rightarrow ? = 4.9$

23. (e)  $(0.04)^2 \div (0.008) \times (0.2)^6$   
 $= (0.2)^4 \div (0.2)^3 \times (0.2)^6$   
 $= (0.2)^{4-3+6} = (0.2)^7$   
 $\therefore ? = 7$

24. (b)  $\frac{64 \times 16}{256} = 4^{(?-3)} = 4 = 4^{(?-3)} = ? - 3 = 1$   
 $\therefore ? = 3 + 1 = 4$

25. (d)  $5^2 \times (5 \times 5)^3 \times 5 \times 5 \times 5 = 5^2 \times 5^3 \times 5^3 = 5^{11}$

26. (b)  $\frac{(6)^4}{(36)^3} \times 216 = 6^{(?-5)} = \frac{6^4 \times 6^3}{6^6} = 6^{(6-5)}$

27. (c)  $(5)^{(3.5)} \times (5)^{(4.8)} \times (5)^{(2.4)} \div (5)^{(?)} = (5)^{(5.1)}$   
 $\Rightarrow 5^{3.5+4.8+2.4-?} = 5^{5.1}$   
 $\Rightarrow 5^{10.7-?} = 5^{5.1}$   
 $\Rightarrow 10.7 - ? = 5.1$   
 $\Rightarrow ? = 10.70 - 5.1 = 5$

28. (d)  $\therefore (5)^? = 5^2 \times 25^3 \times 625 = 5^2 \times 5^6 \times 5^4 = 5^{2+6+4}$   
 $\therefore 2 + 6 + 4 = 12$

29. (b)  $(7)^3 \div (7^2)^2 \times 7^3 = 7^{? - 2}$   
 $\Rightarrow 7^{3-4+3} = 7^{? - 2}$   
 $\Rightarrow ? - 2 = 2 \Rightarrow ? = 4$

30. (c)  $9^{3.5} \times 3^{2.2} \div 9^{(?)} = 9^{1.4}$   
 $\Rightarrow 3^2 \times 3^{3.5} \times 3^{2.2} \div 3^{2(?)} = 3^{2(1.4)}$   
 $\Rightarrow 3^{7+2.2-2(?)} = 3^{2.8} \Rightarrow 9.2 - 2(?) = 2.8$   
 $\Rightarrow -2(?) = -6.4 \Rightarrow ? = 3.2$



## SPEED TEST 7

1. (b)
2. (a)  $\sqrt[3]{7} = 99 \times 21 - 1968 = 111$   
 $\therefore ? = (111)^3 = 1367631$
3. (a)  $? = 790 \times \frac{8}{3} \times \frac{6}{5} \times \frac{7}{2} = 79 \times 8 \times 14 = 8848$
4. (b)  $? = (41)^2 + (38)^2 \times (0.15)^2$   
 $1681 + 1444 \times 0.0225$   
 $1681 + 32.49 = 1713.49$
5. (e)  $? = \sqrt{100000}$   
 $\sqrt{100 \times 100 \times 10} = 100\sqrt{10} = 100 \times 3.162$   
 $= 316.2 \approx 316$
6. (e)  $? = 456.675 + 35.7683 \times 67.909 - 58.876$   
 $= 456.675 + 2428.98 - 58.876$   
 $= 2885.66 - 66 - 58.876 = 2826.78 \approx 2830$
7. (b)  $? = (7684 + 5454 + 9041) \div (601 + 296 + 557)$   
 $= 22179 \div 1454 = 15.25 \approx 15$
8. (c)  $? = \frac{\{(52)^2 + (45)^2\}}{8} = \frac{2704 + 2025}{8} = \frac{4729}{8} = 591.125$
9. (e)  $? = (64)^4 \div (8)^5 = (8^2)^4 \div (8)^5$   
 $= (8)^{2 \times 4} \div (8)^5 = (8)^8 \div (8)^5 = 8^3$
10. (b)  $? = (12.25)^2 - \sqrt{625} = (12.25)^2 - 25$   
 $= 150.0625 - 25 = 125.0625$
11. (d)  $? = 383 \times 38 \times 3.8 = 383 \times 144.4 = 55305.2$
12. (c)  $? = 43.231 - 12.779 - 6.542 - 0.669 = 23.241$
13. (e)  $? = 572 + 38 \times 0.50 - 16$   
 $= 572 + 19 - 16 = 591 - 16 = 575$
14. (b)  $15 \times ? = 6269 + 333 + 148 = 6750$   
 $\therefore ? = \frac{6750}{15} = 450$
15. (a)  $? = \frac{1056 \times 7 \times 5 \times 13}{3 \times 2 \times 11} = 7280$
16. (b)  $\sqrt{?} \times 9 = 6318 + 26 = 243$   
 $\therefore \sqrt{?} = \frac{243}{9} = 27$   
 $\therefore ? = (27)^2 = 729$
17. (a)  $(27)^{7.5} \times (27)^{3.5} \div (27)^{-6} \div (27)^{15}$   
 $= (27)^{7.5 + 3.5 + 6 - 15} = (27)^{17 - 15} = (27)^2$   
 $\therefore ? = 2$
18. (d)  $? = \sqrt{31329} \times 5 = 177 \times 5 = 885$
19. (c)  $? \approx \frac{78700}{1750} + 4 \times 120 = 45 + 460 = 505 \approx 525$
20. (c)  $? \approx 78 + 42 + 9 = 129 \approx 130$
21. (b)  $\frac{1}{8} \times \frac{2}{3} \times \frac{3}{5} \times 1715 = 85.75 \approx 85$
22. (c)  $25 \times 124 + 389 \times 15 = 3100 + 5835 = 8935$
23. (a)  $\frac{561}{35} \times 20 = 320.5 \approx 320$
24. (d)  $(15)^2 \times \sqrt{730} = 225 \times 27 = 6075$
25. (a)  $? = 4895 + 364 \times 0.75 - 49 = 4895 + 273 - 49 = 5119$
26. (c)  $? = 434.43 + 43.34 + 3.44 + 4 + 0.33 = 485.54$
27. (b)  $? = (23.6\% \text{ of } 1254) - (16.6\% \text{ of } 834)$   
 $295.944 - 138.444 = 157.5$
28. (a)  $? = (78.95)^2 - (43.35)^2 = (122.3)(35.6) = 4353.88$
29. (d) Approx value =  $9999 \div 99$   
 $= 101 \div 9 = 11.2 \approx 11$
30. (c) Approx value =  $23 \times 19 \times 8 = 3496 \approx 3500$

## SPEED TEST 8

1. (a) Average age of the remaining boys  
 $= \frac{(80 \times 15) - (15 \times 16 + 25 \times 14)}{40} = \frac{1200 - 590}{40} = 15.25$
2. (e)  $= \frac{(35 \times 160) - 144 + 104}{35} = \frac{5600 - 144 + 104}{35} = \frac{5560}{35}$   
 $= 158.85 \text{ cm}$   
Shortcut :  $160 - \frac{144 - 104}{35} = 158.85$
3. (b) Total age of the family of five members =  $24 \times 5 = 120$   
Total age of the family of five members before 8 years  
 $= 120 - 5 \times 8 = 120 - 40 = 80$   
So, Required average age =  $\frac{80}{5} = 16 \text{ yr}$
4. (e)  $x + x + 2 + x + 4 + x + 6 = 4 \times 36$   
 $\Rightarrow 4x + 12 = 144 \Rightarrow 4x = 144 - 12$   
 $\Rightarrow 4x = 132 \Rightarrow x = \frac{132}{4} = 33$
5. (b) Average age of the whole class  
 $= \frac{32 \times 14 + 28 \times 13}{32 + 28} = \frac{448 + 364}{60} = \frac{812}{60} = 13.53 \text{ yr}$
6. (b) Third number  
 $= 924 - (2 \times 2015 + 2 \times 196) = 924 - (403 + 392)$   
 $= 924 - 795 = 129$
7. (b) Actual average marks  
 $= \frac{65 \times 150 + 152 - 142}{65} = \frac{9750 + 10}{65} = 150.15$
8. (c) Average age of the remaining girls.  
 $\frac{1050 - (25 \times 12 + 25 \times 16)}{25} = \frac{1050 - (300 + 400)}{25}$   
 $= \frac{1050 - 700}{25} = 14 \text{ years}$
9. (b) Let the score of Ajay =  $x$   
Rahul =  $x - 15$   
Manish =  $x - 25$   
According to question,  $x = 63 + 30$   
 $\therefore x = 93$   
 $\therefore$  Score of Ajay = 93  
then Rahul =  $93 - 15 = 78$   
then Manish =  $93 - 25 = 68$   
Total marks of Rahul, Manish and Suresh  
 $= 3 \times 63 = 189$   
 $\therefore$  Suresh =  $189 - (78 + 68) = 43$   
 $\therefore$  Manish + Suresh =  $68 + 43 = 111$   
 $(45 \times 36) + 32 - 34 + 45 - 40 = \frac{1620 + 3}{45}$
10. (a) Average =  $\frac{(45 \times 36) + 32 - 34 + 45 - 40}{45} = \frac{1620 + 3}{45}$   
 $= 36.07 \text{ kg}$
11. (c) Total speed of car, bus and train  
 $= 72 \times 3 = 216 \text{ km}$   
Speed of car and train =  $\frac{5 + 9}{5 + 9 + 4} \times 216 = 168 \text{ km}$   
Average =  $\frac{168}{2} = 84 \text{ km}$
12. (a) Suppose marks got in physics, chemistry and mathematics are P, C and M.  
 $P + C + M = C + 120$   
 $\therefore P + M = 120$   
 $\frac{P + M}{2} = 60$
13. (b) Difference of marks =  $72 + 61 - 48 - 65 = 20$   
Correct average marks =  $68 + \frac{20}{2} = 68 + 10 = 78$

$$14. (b) (7 \times 26) - (3 \times 19 + 3 \times 32) = 182 - (57 + 96) \\ = 182 - 153 = 29 \text{ yr}$$

$$15. (b) \text{ Let the total number of candidates} = x \\ \therefore \frac{50x + 100(90 - 600)}{x} = 45 \quad \therefore x = 600$$

$$16. (b) \frac{16 \times 28 \frac{1}{4} - 2 \times 58}{14} = 24$$

$$17. (d) 51 \times 5.05 - 50 \times 5 = 7.55 \text{ gm.}$$

$$18. (a) \text{ Total age of 10 students} = 15 \times 10 = 150 \text{ yrs} \\ \text{Total age of 15 students} = 15 \times 16 = 240 \text{ yrs} \\ \therefore \text{Average of new students} = \frac{240 - 150}{5} = 18 \text{ yrs.}$$

$$19. (e) 56 + 8 \times 2.5 = 76 \text{ yrs}$$

$$20. (c) A + B + C = 3 \times 84 = 252 \text{ kg} \\ A + B + C + D = 4 \times 80 = 320 \text{ kg} \\ \therefore D = 320 - 252 = 68 \text{ kg} \\ \therefore E = 68 + 3 = 71 \text{ kg} \\ \text{Now, } \frac{320 - A + 71}{4} = 79 \\ \therefore A = 75 \text{ kg}$$

$$21. (c) 6 \times 49 + 6 \times 52 - 11 \times 50 = 294 + 312 - 550 = 56$$

$$22. (c) \text{ By Direct Formula :} \\ \text{Average} = \frac{2 \times 60 \times 30}{60 + 30} = \frac{2 \times 60 \times 30}{90} = 40 \text{ km/hr}$$

$$23. (c) \text{ Average of five consecutive even numbers or odd numbers is the middle term. In this case, the average is } c.$$

$$24. (c) \text{ Total of 10 innings} = 21.5 \times 10 = 215 \\ \text{Suppose he needs a score of } x \text{ in 11th innings; then average in 11 innings} = \frac{215 + x}{11} = 24 \quad \text{or, } x = 264 - 215 = 49$$

$$25. (b) \text{ By the theorem : Average speed} \\ = \frac{3 \times 40 \times 30 \times 15}{40 \times 30 + 30 \times 15 + 40 \times 15} = \frac{3 \times 40 \times 30 \times 15}{2250} = 24 \text{ km/hr}$$

$$26. (a) \text{ Let the total journey be } x \text{ km. Then } \frac{x}{3} \text{ km at the speed of } 25 \\ \text{km/hr and } \frac{x}{4} \text{ km at } 30 \text{ km/hr and the rest distance} \\ \left(x - \frac{x}{3} - \frac{x}{4}\right) = \frac{5}{12}x \text{ at the speed of } 50 \text{ km/hr.}$$

$$\text{Total time taken during the journey of } x \text{ km} \\ = \frac{x}{3 \times 25} \text{ hrs} + \frac{x}{4 \times 30} \text{ hrs} + \frac{5x}{12 \times 50} \text{ hrs} = \frac{18x}{600} \text{ hrs} = \frac{3x}{100} \text{ hrs} \\ \therefore \text{average speed} = \frac{x}{\frac{3x}{100}} = \frac{100}{3} = 33 \frac{1}{3} \text{ km/hr}$$

$$27. (a) \text{ Let the total no. of workers be } x. \\ \text{Now, } 8000x = 7 \times 12000 + (x - 7) \times 6000 \\ \Rightarrow x = \frac{42000}{2000} = 21$$

$$28. (c) \text{ Mean salary of the remaining 20 workers} \\ = \frac{75 \times 5680 - 25 \times 5400 - 30 \times 5700}{20} \\ = \frac{15 \times 5680 - 5 \times 5400 - 6 \times 5700}{4} \\ = 15 \times 1420 - 5 \times 1350 - 6 \times 1425 \\ = 15 [1420 - 450 - 2 \times 285] \\ = 15 [1420 - 450 - 570] = 15 \times 400 = 6000$$

$$29. (c) \text{ Total annual income} \\ = 3 \times 2200 + 4 \times 2250 + 5 \times 3120 + 1260 \\ = 6600 + 9000 + 15600 + 1260 = 32460 \\ \text{Average monthly income} = \frac{32460}{12} = \text{Rs. } 2705$$

$$30. (a) \frac{120 - 8 \times 5}{4} = 20$$

## SPEED TEST 9

$$1. (d) \text{ Total number of students in the school} = 819 \\ \text{Number of girls} = 364 \\ \therefore \text{Number of boys} = 819 - 364 = 455 \\ \therefore \text{Required ratio} = 435 : 364 = 5 : 4$$

$$2. (d) \text{ Share of Urmila in dividend} = \left(\frac{2}{6} \times 57834\right) = ₹ 19278$$

$$3. (d)$$

$$4. (e) \text{ Let the number of girls} = x \\ \therefore \text{Number of boys} = 1.16x \\ \therefore \text{Required ratio} = 1.16x : x = 116 : 100 = 29 : 25$$

$$5. (d) \text{ According to the question, } \frac{A}{B} = \frac{4}{7} \quad \dots (i)$$

$$\text{and } \frac{A \left(1 + \frac{50}{100}\right)}{B \left(1 - \frac{25}{100}\right)} = \frac{8}{7} \quad \dots (ii)$$

From equations (i) and (ii), we cannot find the earning of A and B.

$$6. (e) \text{ Ratio of the capital of Rinku and Pooja} = \frac{5100}{6600} = \frac{51}{66} = \frac{17}{22}$$

$$\therefore \text{Rinku's share} = \frac{2730 \times 17}{17 + 22} = ₹ 1190$$

$$7. (c) \text{ Let the number of girls be } = x$$

$$\therefore \text{Number of the boys} = \frac{115x}{100}$$

$$\therefore \text{Required ratio} = \frac{115x}{100} : x = 23 : 20$$

$$8. (c) \text{ Ratio of equivalent capitals of A, B and C for 1 month} \\ = 35000 \times 12 : 20000 \times 5 : 15000 \times 7 \\ = 35 \times 12 : 20 \times 5 : 15 \times 7 = 84 : 20 : 21 \\ \text{Sum of the ratios} = 84 + 20 + 21 = 125$$

$$\therefore \text{B's share} = ₹ \left(\frac{20}{125} \times 84125\right) = ₹ 13460$$

$$9. (b) \text{ Ratio of profit} = 1 \times 12 : 2 \times 6 : 3 \times 4 = 1 : 1 : 1$$

$$\therefore \text{Manav's share} = 45000 \times \frac{1}{3} = ₹ 15000$$

$$10. (a) \text{ Let number of students in Arts and Commerce were } 4x \text{ and } 5x \text{ respectively.}$$

$$\text{Then, } \frac{4x}{5x + 65} = \frac{8}{11} \Rightarrow 44x - 40x = 520 \Rightarrow x = \frac{520}{4} = 130$$

$$\therefore \text{Number of students in Arts} = 4 \times 130 = 520$$

$$11. (d) \text{ Ratio of capital} = 50000 \times 12 : 80000 \times 6 = 5 : 4$$

$$\therefore \text{Sarita's share} = \frac{18000 \times 5}{(5 + 4)} = ₹ 10000$$

$$12. (b) \text{ Ratio of the salaries of Sumit and Rajan} = \frac{2}{5} : \frac{1}{2} = 4 : 5$$

$$\text{Rajan's salary} = \frac{5}{9} \times 36000 = ₹ 20000$$

$$13. (a) \frac{?}{84} = \frac{189}{?}$$

$$\text{or } ?^2 = 84 \times 189 \quad \text{or } ?^2 = 21 \times 4 \times 21 \times 9$$

$$\text{or } ?^2 = 21^2 \times 2^2 \times 3^2$$

$$\therefore ? = 21 \times 2 \times 3 = 126$$

$$14. (d) \text{ Smallest angle} = (13 + 12) \times \frac{20}{100} = 5$$

$$\therefore \text{Ratio of angles} = 13 : 12 : 5$$

$$\therefore \text{Sum of smallest and second largest angles}$$

$$= \frac{180 \times (12 + 5)}{(13 + 12 + 5)} = \frac{180 \times 17}{30} = 102^\circ$$

15. (a) Required number of gold coins  

$$= \frac{\{950 - (25 + 15 + 30)\} \times 73}{(20 + 73 + 83)} + 15 = 365 + 15 = 380$$
16. (c) Rita : Sita : Kavita  
 7 : 15  
       7 : 16  
 49 : 105 : 240  
 The ratio of money with Rita, Sita and Kavita is  
 49 : 105 : 240  
 We see that 49  $\equiv$  ₹ 490  $\therefore$  240  $\equiv$  ₹ 2400
17. (c) A : B = 3 : 4  
 B : C = 8 : 10  
 C : D = 15 : 17  
 A : B : C : D = 3  $\times$  8  $\times$  15 : 4  $\times$  8  $\times$  15 : 4  $\times$  10  $\times$  15 : 4  $\times$  10  $\times$  17  
 $= 9 : 12 : 15 : 17$
18. (c) 4 leaps of hound = 5 leaps of hare  
 $\therefore$  5 leaps of hound =  $\frac{25}{4}$  leaps of hare  
 $\therefore$  the rate of hound : rate of hare =  $\frac{25}{4} : 6 = 25 : 24$   
 Or, Ratio of Hound Hare  
           Leap frequency   5           6  
           Leap length     4           5  
 Then the required ratio of speed is the ratio of the cross-product.  
 That is, speed of hound : speed of hare  
 $= 5 \times 5 : 6 \times 4 = 25 : 24$
19. (c) There are 12 mirrors in the carton. So, the sum of terms in the ratio must divide 12 exactly. We see that 2 + 1 = 3 divides 12 exactly. 3 + 1 = 4 also divides exactly. 3 + 2 = 5 doesn't divide 12 exactly. Thus, our answer is (c).
20. (d) We should know that  

$$a + b = \frac{6}{6+7+8} [(a+b) + (b+c) + (a+c)]$$

$$= \frac{6}{21} [2(a+b+c)] = \frac{6}{21} \times 28 = 8$$
 Similarly,  $b + c = \frac{7}{6+7+8} [2(a+b+c)] = \frac{7}{21} \times 28 = \frac{28}{3}$   
 and  $a + c = \frac{8}{21} \times 28 = \frac{32}{3}$   
 Now,  $a = [(a+b+c) - (b+c)] = 14 - \frac{28}{3} = \frac{14}{3}$   
 Similarly,  $b = 14 - \frac{32}{3} = \frac{10}{3}$  and  $c = 14 - 8 = 6$   
 Thus,  $a = \frac{14}{3}, b = \frac{10}{3}$  and  $c = 6$   
 $\therefore a : b : c = \frac{14}{3} : \frac{10}{3} : 6 = 14 : 10 : 18 = 7 : 5 : 9$
21. (a) Originally, let the number of seats for Mathematics, Physics and Biology be 5x, 7x and 8x respectively.  
 i.e.  $\left(\frac{140}{100} \times 5x\right), \left(\frac{150}{100} \times 7x\right)$  and  $\left(\frac{175}{100} \times 8x\right)$  i.e.  $7x, \frac{21x}{2}$  and  $14x$ .  
 $\therefore$  Required ratio =  $7x : \frac{21x}{2} : 14x = 14x : 21x : 28x = 2 : 3 : 4$ .
22. (a) Originally, let the number of boys and girls in the college be 7x and 8x respectively. Their increased number is (120% of 7x) and (110% of 8x).  
 i.e.  $\left(\frac{120}{100} \times 7x\right)$  and  $\left(\frac{110}{100} \times 8x\right)$  i.e.  $\frac{42x}{5}$  and  $\frac{44x}{5}$ .  
 $\therefore$  Required ratio =  $\frac{42x}{4} : \frac{44x}{5} = 21 : 22$ .

23. (c) Let the shares of A, B, C and D be Rs. 5x, Rs. 2x, Rs. 4x and Rs. 3x respectively.  
 $\therefore$  B's share = Rs. 2x = Rs. (2  $\times$  1000) = Rs. 2000.
24. (b) Let the fixed amount be Rs. x and cost of each unit be Rs. y. Then,  $540y + x = 1800$  ....(i)  
 and  $620yi + x = 2040$  ....(ii)  
 On subtracting (i) from (ii), we get  $80y = 240 \Leftrightarrow y = 3$ .  
 Putting  $y = 3$  in (i), we get:  
 $540 \times 3 + x = 1800 \Leftrightarrow x (1800 \times 1620) = 180$ .  
 $\therefore$  Fixed charges = Rs. 180,  
 Charge per unit = unit = Rs. 3.  
 Total charges for consuming 500 units = Rs. (180 + 500  $\times$  3) = Rs. 1680.
25. (a) Let the ratio be x : (x = 40). Then,  
 $\frac{x}{(x+40)} = \frac{2}{7} \Leftrightarrow 7x = 2x + 80 \Leftrightarrow 5x = 80 \Leftrightarrow x = 16$ .  
 $\therefore$  Required ratio = 16 : 56.
26. (d) Fare after reduction.
- |               |                   |                    |     |
|---------------|-------------------|--------------------|-----|
|               | 1st               | 2nd                | 3rd |
|               | $8 - \frac{8}{6}$ | $6 - \frac{6}{12}$ | 3   |
| $\Rightarrow$ | $\frac{20}{3}$    | $\frac{11}{2}$     | 3   |
| $\Rightarrow$ | 40                | 33                 | 18  |
- Ratio of revenue
- |  |               |                |                |
|--|---------------|----------------|----------------|
|  | 1st           | 2nd            | 3rd            |
|  | $9 \times 40$ | $12 \times 33$ | $26 \times 18$ |
- Ratio of revenue of all three classes = 10 : 11 : 13  
 $\therefore$  Collection for 1st class =  $\frac{1088 \times 10}{34} = \text{Rs } 320$
27. (a)
- |          |      |        |        |
|----------|------|--------|--------|
|          | Iron | Copper |        |
| Alloy I  | 8    | 6      | 14 kg. |
| Alloy II | 36   | 6      | 42 kg. |
|          | 44   | 12     | 56 kg  |
28. (c) Ratio of the amount is  

$$\frac{P \left(1 + \frac{r}{100}\right)^2}{\left(P + \frac{Pr}{100}\right)} = \frac{6}{5} \Rightarrow \left(1 + \frac{r}{100}\right) = \frac{6}{5} \Rightarrow r = 20\%$$
29. (c) Let the number of Mechanical engineering graduates be M and Electronic engineering graduates be E. Then  
 $\frac{2.45M + 3.56E}{M + E} = 3.12 \Rightarrow 2.45M + 3.56E = 3.12M + 3.12E$   
 $\Rightarrow 0.44E = 0.67M \Rightarrow E = \frac{0.67}{0.44}M = \frac{67}{44}M$   
 For E to be an integer, the least value will be 67.
30. (b) Weight of dry grapes without water =  $250 \times \frac{90}{100} = 225$  kg  
 Let weight of fresh grapes be x kg.  
 According to question,  
 $x \times \frac{20}{100} = 225 \Rightarrow x = \frac{225 \times 100}{20} = 1125$  kg

**SPEED TEST 10**

1. (b) According to the above theorem,  
 a : b = 3 : 2 (Income)  
 c : d = 5 : 3 (Expenditure)  
 X = 2000 (Savings)  
 Therefore, A's income =  $\frac{Xa(d-c)}{ad-bc} = \frac{2000 \times 3 \times (3-5)}{3 \times 3 - 2 \times 5} = \text{₹ } 12,000$

$$\text{and B's income} = \frac{Xb(d-c)}{ad-bc} = \frac{2000 \times 2 \times (3-5)}{3 \times 3 - 2 \times 5} = ₹ 8,000$$

$$2. \quad (c) \quad x : \frac{1}{27} = \frac{3}{11} : \frac{5}{9} \text{ or, } 27x = \frac{3 \times 9}{11 \times 5} \therefore x = \frac{1}{55}$$

$$3. \quad (a) \quad 9 : 8 \\ 14 : 15$$

We know that the total bill = wage per person  $\times$  no. of total employees.

Therefore, the ratio of change in bill  
 $= 9 \times 14 : 8 \times 15 = 126 : 120 = 21 : 20$

The ratio shows that there is a decrease in the bill.

$$4. \quad (a) \quad 2m = 5b \\ 2w = 3b$$

Combining the two relations : (Follow the rule)

$$2m = 5b$$

$$3b = 2w$$

$$2 \times 3m = 5 \times 3b = 5 \times 2w \Rightarrow 6m = 15b = 10w$$

Now, to find the ratio of wages of a man, a woman and a boy, let  $6m = 15b = 10w = k$  (say)

$$\therefore m = \frac{k}{6}; b = \frac{k}{15}; w = \frac{k}{10}$$

$$\therefore m : w : b = \frac{1}{6} : \frac{1}{10} : \frac{1}{15} = 5 : 3 : 2$$

The ratio of wages of 6 men, 12 women and 17 boys

$$= 6 \times 5 : 12 \times 3 : 17 \times 2 = 30 : 36 : 34$$

$$\therefore 17 \text{ boys get } \frac{50}{30+36+34} \times 34 = ₹ 17$$

$$\therefore 1 \text{ boy gets } ₹ 1$$

$$5. \quad (a) \quad \text{A's share} : \text{B's share} : \text{C's share}$$

$$= \frac{1}{4} \times \frac{1}{4} : \frac{1}{5} \times \frac{1}{2} : \left\{ 1 - \left( \frac{1}{4} + \frac{1}{5} \right) \right\} \times 1 = \frac{1}{16} : \frac{1}{10} : \frac{11}{20}$$

Multiplying each fraction by LCM of 16, 10 and 20, i.e., 80.

We have  $5 : 8 : 44$

$$\therefore \text{A's share} = \frac{1140}{57} \times 5 = ₹ 100$$

$$\text{B's share} = \frac{1140}{57} \times 8 = ₹ 160$$

$$\text{C's share} = \frac{1140}{57} \times 44 = ₹ 880$$

$$6. \quad (b) \quad \text{Suppose B joined the business for } x \text{ months.}$$

$$\text{Then using the above formula, we have } \frac{450 \times 12}{300 \times x} = \frac{1}{2}$$

$$\text{or } 300 \times 2x = 450 \times 12$$

$$\therefore x = \frac{450 \times 12}{2 \times 300} = 9 \text{ months}$$

Therefore, B joined after  $(12 - 9) = 3$  months.

$$7. \quad (b) \quad \text{Suppose B puts in } x \text{ cows. The ratio of A's and B's rents}$$

$$= 1 : 1 + \frac{1}{2} = 1 : \frac{3}{2} = 2 : 3$$

$$\text{Then, } \frac{100 \times 8}{x \times 2} = \frac{2}{3} \text{ or, } x = \frac{100 \times 8 \times 3}{2 \times 2} = 600 \text{ cows.}$$

$$8. \quad (d) \quad \text{For A's share} : (10\% - 8\%) \equiv ₹ 220$$

$$\therefore 100\% = \frac{220}{2} \times 100 = ₹ 11000$$

$$\therefore \text{A's capital} = ₹ 11000$$

$$\text{For B's and C's share} : \frac{2}{5} \equiv 11000$$

$$\therefore \frac{3}{5} \equiv \frac{11000}{2} \times 3 = ₹ 16500$$

$\therefore$  B's and C's capitals are ₹ 8250 each.

$$9. \quad (e) \quad \text{Amount received by each son} = \text{Rs. } 48000$$

$$\therefore \text{Amount received by her daughter} = \text{Rs. } 24000$$

and amount received by the wife = Rs. 96000

$$\therefore \text{Total amount distributed by Shri Ramlal} \\ = \text{Rs. } (96000 + 2 \times 48000 + 24000) = \text{Rs. } 216000$$

$$\frac{2}{3} + \frac{1}{3} = 42 \times 5 \text{ or } ?^{\frac{3}{5}} = 210$$

$$10. \quad (b) \quad (2)^{\frac{2}{3}} = 42 \times 5 \text{ or } ?^{\frac{3}{5}} = 210$$

$$11. \quad (c) \quad \text{Total no. of boys in the school} = \frac{25}{54} \times 270 = 125$$

$$\text{Total no. of girls in the school} = \frac{29}{54} \times 270 = 145$$

After inclusion of 15 boys and 15 girls, the ratio of boys to girls in the school

$$= (125 + 15) : (145 + 15) = 140 : 160 = 7 : 8$$

$$12. \quad (c) \quad \text{Let the first number be } x \text{ and the second number be } y.$$

According to the question,

$$2x + 3y = 141 \quad \dots(i)$$

$$3x + 2y = 174 \quad \dots(ii)$$

By equation (i)  $\times 3 -$  (ii)  $\times 2$ , we have

$$6x + 9y - 6x - 4y = 423 - 348$$

$$\Rightarrow 5y = 75 \Rightarrow y = \frac{75}{5} = 15$$

$$\text{From equation (i), } 2x + 3 \times 15 = 141$$

$$\Rightarrow 2x = 141 - 45 = 96 \Rightarrow x = \frac{96}{2} = 48$$

$$\therefore \text{Larger number} = 48$$

$$13. \quad (d) \quad \text{According to the question,}$$

$$46x + 30 + 41x + 30 + 34x + 25 = 2505$$

$$\Rightarrow 121x = 2505 - 85 = 2420 \Rightarrow x = \frac{2420}{121} = 20$$

$$\therefore \text{Number of coins received by Parat}$$

$$= 41x + 30 = 41 \times 20 + 30 = 850$$

$$14. \quad (e) \quad \text{Total cost} = \left( \frac{264}{11} \times 24 + \frac{252}{14} \times 21 + \frac{544}{17} \times 25 \right)$$

$$= \text{Rs } (576 + 378 + 800) = \text{Rs. } 1754$$

$$15. \quad (a) \quad \text{Let the population of the village X be } 5x.$$

and that of village Y =  $7x$ .

$$\text{According to the question, } \frac{5x}{7x + 25000} = \frac{25}{36}$$

$$\Rightarrow 180x = 175x + 25 \times 25000 \Rightarrow 5x = 625000$$

$$\therefore x = 625000$$

$$16. \quad (d) \quad \text{Let the number of students in colleges A and B be } 3x \text{ and } 4x \text{ respectively.}$$

$$\text{According to the question, } \frac{3x + 50}{4x} = \frac{5}{6}$$

$$\Rightarrow 20x = 18x + 300 \Rightarrow 2x = 300 \Rightarrow x = \frac{300}{2} = 150$$

$$\therefore \text{Number of students in college, B} = 4x$$

$$4 \times 150 = 600$$

$$17. \quad (b) \quad \text{Let } \frac{a}{3} = \frac{b}{4} = \frac{c}{7} = k.$$

$$a = 3k, b = 4k, c = 7k$$

$$\therefore \frac{a+b+c}{c} \Rightarrow \frac{3k+4k+7k}{7k} = \frac{14k}{7k} = \frac{2}{1} \text{ or } 2:1$$

$$18. \quad (c) \quad \frac{4x^2 - 3y^2}{2x^2 + 5y^2} = \frac{12}{19} \Leftrightarrow 9(4x^2 - 3y^2) = 12(2x^2 + 5y^2)$$

$$\Leftrightarrow 52x^2 = 117y^2 \Leftrightarrow 4x^2 = 9y^2 \Leftrightarrow \frac{x^2}{y^2} = \frac{9}{4} \Leftrightarrow \frac{x}{y} = \frac{3}{2}$$

$\therefore$  Required ratio is  $3 : 2$

$$19. \quad (a) \quad x^2 + 4y^2 = 4xy \Leftrightarrow x^2 - 4xy + 4y^2 = 0 \Leftrightarrow (x - 2y)^2 = 0$$

$$\Leftrightarrow (x - 2y) = 0 \Leftrightarrow x = 2y \Leftrightarrow \frac{x}{y} = \frac{2}{1}$$

$$\therefore x : y = 2 : 1$$

20. (d) Let  $A = 2x$ ,  $B = 3x$  and  $C = 4x$ . Then  $\frac{A}{B} = \frac{2x}{3x} = \frac{2}{3}$ ,

$$\frac{B}{C} = \frac{3x}{4x} = \frac{3}{4} \text{ and } \frac{C}{A} = \frac{4x}{2x} = \frac{2}{1}$$

$$\Rightarrow \frac{A}{B} : \frac{B}{C} : \frac{C}{A} = \frac{2}{3} : \frac{3}{4} : \frac{2}{1} = 8 : 9 : 24$$

21. (b) Let  $P = 2x$  and  $Q = 3x$ . Then  $\frac{Q}{R} = \frac{2}{3} \Rightarrow R = \frac{3}{2}Q$

$$= \left(\frac{3}{2} \times 3x\right) = \frac{9x}{2}$$

Also,  $\frac{R}{S} = \frac{2}{3} \Rightarrow S = \frac{3}{2}R = \left(\frac{3}{2} \times \frac{9x}{2}\right) = \frac{27x}{4}$ .

Thus,  $P = 2x$ ,  $Q = 3x$ ,  $R = \frac{9x}{2}$  and  $S = \frac{27x}{4}$ .

Now,  $P + Q + R + S = 1300$

$$\Leftrightarrow \left(2x + 3x + \frac{9x}{2} + \frac{27x}{4}\right) = 1300$$

$$\Leftrightarrow (8x + 12x + 18x + 27x) = 5200$$

$$\Leftrightarrow 65x = 5200 \Leftrightarrow x = \frac{5200}{65} = 80.$$

$\therefore$  P's share = Rs.  $(2 \times 80)$  = Rs. 160

22. (b) Quantity of milk in 16 litres of mix. =  $\left(16 \times \frac{5}{8}\right)$  litres = 10 litres.

Quantity of milk in 20 litres of new mix. =  $(10 + 4)$  litres

Quantity of water in it =  $(20 - 14)$  litres = 6 litres.

$\therefore$  Ratio of milk and water in the new mix. =  $14 : 6 = 7 : 3$

23. (c) Let the three containers contain  $3x$ ,  $4x$  and  $5x$  litres of mixtures respectively,

Milk in 1st mix. =  $\left(3x \times \frac{4}{5}\right)$  litres =  $\frac{12x}{5}$  litres.

Water in 1st mix. =  $\left(3x - \frac{12x}{5}\right)$  litres =  $\frac{3x}{5}$  litres.

Milk in 2nd mix. =  $\left(4x \times \frac{3}{4}\right)$  litres =  $3x$  litres.

Water in 2nd mix. =  $(4x - 3x)$  litres =  $x$  litres.

Milk in 3rd mix. =  $\left(5x \times \frac{5}{7}\right)$  litres =  $\frac{25x}{7}$  litres.

Water in 3rd mix. =  $\left(5x - \frac{25x}{7}\right)$  litres =  $\frac{10x}{7}$  litres.

Total milk in final mix. =  $\left(\frac{12x}{5} + 3x + \frac{25x}{7}\right)$  litres

$$= \frac{314x}{35} \text{ litres.}$$

Total water in final mix. =  $\left(\frac{3x}{5} + x + \frac{10x}{7}\right)$  litres

$$= \frac{106x}{35} \text{ litres.}$$

Required ratio of milk and water =  $\frac{314x}{35} : \frac{106x}{35} = 157 : 53$ .

24. (b) Let the third proportional to 12 and 30 be  $x$ .

Then,  $12 : 30 :: 30 : x \Leftrightarrow 12x = 30 \times 30$

$$\Leftrightarrow x = \frac{(30 \times 30)}{12} = 75$$

$\therefore$  Third proportional to 12 and 30 = 75.

Mean proportional between 9 and 25 =  $\sqrt{9 \times 25} = 15$

$\therefore$  Required ratio =  $75 : 15 = 5 : 1$

25. (b) Required ratio =  $\left(\frac{2}{3} \times \frac{6}{11} \times \frac{11}{2}\right) = \frac{2}{1} = 2 : 1$

26. (b) Ratio of sides =  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4} = 6 : 4 : 3$

Largest side =  $\left(104 \times \frac{6}{13}\right)$  cm = 48 cm

27. (b) Let the numbers be 600, 800 and 1500.

Then the new numbers are 2400, 3000 and 3000

$\therefore$  Ratio =  $24 : 30 : 30 \Rightarrow 4 : 5 : 5$

28. (b) Ratio of X, Y and Z =  $1.2 \times 6.5 : 1.5 \times 5 : 2.8 \times 3 = 26 : 25 : 28$ .

$\therefore$  X's share =  $\frac{108941}{79} \times 26 = 35854$

Z's share =  $\frac{108941 \times 28}{79} = 38612$

$\therefore$  Diff =  $38612 - 35854 = 2758$

29. (d) Let the numbers be  $x$  and  $y$ .

$$\therefore \frac{x}{y} = \frac{4}{7}$$

$\therefore 7x = 4y$  ... (a)

$$\frac{x+30}{y+30} = \frac{5}{8}$$

$\therefore 8x - 5y = -90$  ... (b)

From eqn (b),  $32x - 20y = -360$

From eqn (a),  $35x = 20y$

$\therefore 32x - 35x = -360$

$\therefore x = \frac{360}{3} = 120$

$y = 210$

$\therefore$  Avg =  $\frac{330}{2} = 165$

30. (a) Shalini's equivalent = ₹  $(80000 \times 12 + 100000 \times 12)$

= ₹  $(960000 + 1200000)$  = ₹ 2160000

Nalini's equivalent capital for 1 month

= ₹  $(80000 \times 12 + 50000 \times 12)$

= ₹  $(690000 + 600000)$  = ₹ 1560000

$\therefore$  Ratio of the profit =  $2160000 : 1560000$

=  $216 : 156 = 18 : 13$

$\therefore$  Nalini's share = ₹  $\left(\frac{13}{13+18}\right) \times 93000$

= ₹  $\left(\frac{13}{31} \times 93000\right)$  = ₹ 39000

31. (e) Let Y's salary = ₹ 100

$\therefore$  X's salary = ₹ 80

and Z's salary =  $\left(\frac{80 \times 120}{100}\right)$  = ₹ 96

$\therefore$  Required ratio =  $80 : 100 : 96 = 20 : 25 : 24$

SPEED TEST 11

1. (b) Let the required time be  $x$  seconds. Then,

**More metres, more time (Direct Proportion)**

$\therefore 0.128 : 25 :: 1 : x$

$$\Leftrightarrow 0.128 \times x = 25 \times 1 \Leftrightarrow x = \frac{25}{0.128} = \frac{25 \times 1000}{128}$$

$\Leftrightarrow x = 195.31$ .

$\therefore$  Required time = 195 sec (approximately)

2. (b) Let the height of the building be  $x$  metres.

Less lengthy shadow, Less is the height (Direct Proportion)

$\therefore 40.25 : 28.75 :: 17.5 : x \Leftrightarrow 40.25 \times x = 28.75 \times 17.5$

$$\Leftrightarrow x = \frac{(28.75 \times 17.5)}{40.25} \Leftrightarrow x = 12.5.$$

3. (b) Work done =  $\frac{5}{8}$ .

Balance work =  $\left(1 - \frac{5}{8}\right) = \frac{3}{8}$ .

Less work, Less days (Direct Proportion)  
Let the required number of days be x.

$$\text{Then, } \frac{5}{8} : \frac{3}{8} :: 10 : x \Leftrightarrow \frac{5}{8} \times x = \frac{3}{8} \times 10 \Leftrightarrow x = \left( \frac{3}{8} \times 10 \times \frac{8}{5} \right) = 6.$$

4. (d) Let the required number of days be x.  
Then, Less men, More days (Indirect Proportion)  
 $\therefore 27 : 36 :: 18 : x \Leftrightarrow 27 \times x = 36 \times 18$   
 $\Leftrightarrow x = \frac{36 \times 18}{27} \Leftrightarrow x = 24$

5. (c) After 10 days: 150 men had food for 35 days.  
Suppose 125 men had food for x days. Now, Less men, More days (Indirect Proportion)  
 $\therefore 125 : 150 :: 35 : x \Leftrightarrow 125 \times x = 150 \times 35 \Leftrightarrow x = \frac{150 \times 35}{125}$   
 $\Leftrightarrow x = 42$

6. (b) Hence, the remaining food will last for 42 days.  
Let the required number of days be x.  
Less persons, More days (Indirect Proportion)  
More working hrs per day, Less days (Indirect Proportion)  
Persons  $30 : 39$   
Working hrs / day  $6 : 5$  }  $:: 12 : x$   
 $\therefore 30 \times 6 \times x = 39 \times 5 \times 12 \Leftrightarrow x = \frac{39 \times 5 \times 12}{30 \times 6} \Leftrightarrow x = 13.$

7. (c) Let the required number of days be x. Then,  
Less spiders, More days (Indirect Proportion)  
Less webs, Less days (Direct Proportion)  
Spider  $1 : 7$   
Webs  $7 : 1$  }  $:: 7 : x$   
 $\therefore 1 \times 7 \times x = 7 \times 1 \times 7 \Leftrightarrow x = 7$

8. (b) Let the required number of days be x. Then,  
Less pumps, More days (Indirect Proportion)  
Less weight, Less days (Direct Proportion)  
More hours / day, Less days (Indirect Proportion)  
Pumps  $16 : 18$   
Weight  $2170 : 1736$   
Hours / day  $9 : 7$  }  $:: 10 : x$   
 $\therefore (16 \times 2170 \times 9 \times x) = (18 \times 1736 \times 7 \times 10)$   
 $\Leftrightarrow x = \frac{18 \times 1736 \times 7 \times 10}{6 \times 2170 \times 9} = 7$

9. (b) Let the required time be x seconds.  
Part filled =  $\frac{3}{5}$ , Remaining part =  $\left(1 - \frac{3}{5}\right) = \frac{2}{5}$ .  
Less part, Less time (Direct Proportion)  
 $\therefore \frac{3}{5} : \frac{2}{5} :: 60 : x \Leftrightarrow \left(\frac{3}{5} \times x\right) = \left(\frac{2}{5} \times 60\right) \Leftrightarrow x = 40$

10. (d) Let the required number of units of work be z.  
More men, More work (Direct Proportion)  
More working hours, More work (Direct Proportion)  
More days, More work (Direct Proportion)  
Men  $x : y$   
Hours per day  $x : y$   
Days  $x : y$  }  $:: x : z$   
 $\therefore (x \times x \times x \times z) = (y \times y \times y \times x) \Leftrightarrow z = \frac{y^3}{x^2}$

11. (b) Let the required number of rounds be x.  
More radius, Less rounds (Indirect Proportion)  
 $\therefore 20 : 14 :: 70 : x \Leftrightarrow (20 \times x) = (14 \times 70)$   
 $\Leftrightarrow x = \frac{14 \times 70}{20} \Leftrightarrow x = 49.$

Hence, the required number of rounds = 49.  
12. (b) Let the required quantity of coal be x metric tonnes.  
More engines, More coal (Direct Proportion)  
More hours per day, More work (Direct Proportion)  
More rate, More coal (Direct Proportion)

Engines  $5 : 8$   
Hours per day  $9 : 10$   
Rate  $\frac{1}{3} : \frac{1}{4}$  }  $:: 6 : x$

$$\therefore \left(5 \times 9 \times \frac{1}{3} \times x\right) = \left(8 \times 10 \times \frac{1}{4} \times 6\right)$$

$$\Leftrightarrow 15x = 120 \Leftrightarrow x = 8.$$

13. (c) Let x men can do the work in 12 days and the required number of days be z.

More men, Less days (Indirect Proportion)  
Less work, Less days (Direct Proportion)  
Men  $2x : x$   
Work  $1 : \frac{1}{2}$  }  $:: 12 : z$

$$\therefore (2x \times 1 \times z) = \left(x \times \frac{1}{2} \times 12\right) \Leftrightarrow 2xz = 6x \Leftrightarrow z = 3.$$

14. (a) Let the remaining food will last for x days.  
500 men had provision for  $(27 - 3) = 24$  days.  
 $(500 + 300)$  men had provisions for x days.  
More men, Less days (Indirect Proportion)  
 $\therefore 800 : 500 :: 24 : x = (800 \times x) = (500 \times 24)$   
 $\Leftrightarrow x = \left(\frac{500 \times 24}{800}\right) = 15$

15. (d) Initially, let there be x men having food for y days.  
After 10 days, x men had food for  $(y - 10)$  days. Also,  
 $\left(x - \frac{x}{5}\right)$  men had food for y days.  
 $\therefore x(y - 10) = \frac{4x}{5} \times y \Leftrightarrow 5xy - 50x = 4xy \Leftrightarrow xy - 50x = 0$   
 $\Leftrightarrow x(y - 50) = 0 \Leftrightarrow y - 50 = 0 \Leftrightarrow y = 50.$

16. (b)  $[(100 \times 35) + (200 \times 5)]$  men can finish the work in 1 day.  
 $\therefore 4500$  men can finish the work in 1 day. 100 men can finish it in  $\frac{4500}{100} = 45$  days.  
This is 5 days behind schedule.

17. (a) After 25 days, 35 men complete the work in 12 days.  
Thus, 35 men can finish the remaining work in 12 days.  
 $\therefore 30$  men can do it in  $\frac{(12 \times 35)}{30} = 14$  days, which is 1 day behind.

18. (b) 1 man  $\equiv$  2 boys  $\Leftrightarrow (12 \text{ men} + 18 \text{ boys}) \equiv (12 \times 2 + 18) \text{ boys} = 42 \text{ boys}.$   
Let required number of boys = x.  $21 \text{ men} + x \text{ boys} \equiv (21 \times 2 + x) \text{ boys} = (42 + x) \text{ boys}.$   
Less days, More boys (Indirect Proportion)  
More hrs per day, Less boys (Indirect Proportion)  
Days  $50 : 60$   
Hours per day  $9 : \frac{15}{2}$   
Work  $1 : 2$  }  $:: 42 : (42 + x)$

$$\therefore [50 \times 9 \times 1 \times (42 + x)] = \left(60 \times \frac{15}{2} \times 2 \times 42\right)$$

$$\Leftrightarrow (42 + x) = \frac{37800}{450} \Leftrightarrow 42 + x = 84 \Leftrightarrow x = 42.$$

19. (b)  $(2 \times 14) \text{ men} + (7 \times 14) \text{ boys} \equiv (3 \times 11) \text{ men} + (8 \times 11) \text{ boys}$ .

$$\Leftrightarrow 5 \text{ men} \equiv 10 \text{ boys} \Leftrightarrow 1 \text{ man} \equiv 2 \text{ boys}.$$

$$\therefore (2 \text{ men} + 7 \text{ boys}) \equiv (2 \times 2 + 7) \text{ boys} = 11 \text{ boys}.$$

$$(8 \text{ men} + 6 \text{ boys}) \equiv (8 \times 2 + 6) \text{ boys} = 22 \text{ boys}.$$

Let required number of days be  $x$ .

Now, More boys, Less days (Indirect Proportion)

More work, More days (Direct Proportion)

$$\left. \begin{array}{l} \text{Boys} \quad 22 : 11 \\ \text{Work} \quad 1 : 3 \end{array} \right\} \therefore 14 : x$$

$$\therefore (22 \times 1 \times x) = (11 \times 3 \times 14) \therefore x = \frac{462}{22} = 21$$

Hence, the required number of days = 21.

20. (d) Cost of  $x$  metres = Rs.  $d$  Cost of 1 metre = Rs.  $\left(\frac{d}{x}\right)$ .

$$\text{Cost of } y \text{ metres} = \text{Rs.} \left(\frac{d}{x} \times y\right) = \text{Rs.} \left(\frac{yd}{x}\right).$$

21. (b) A's 1 days work =  $\frac{1}{10}$  and B's 1 day's work =  $\frac{1}{15}$ .

$$\therefore (A + B)'s \text{ 1 day's work} = \left(\frac{1}{10} + \frac{1}{15}\right) = \frac{1}{6}$$

So, both together will finish the work in 6 days.

22. (d)  $(P + Q + R)'s \text{ 1 hour's work} = \left(\frac{1}{8} + \frac{1}{10} + \frac{1}{12}\right) = \frac{37}{120}$

$$\text{Work done by P, Q and R in 2 hours} = \left(\frac{37}{120} \times 2\right) = \frac{37}{60}.$$

$$\text{Remaining work} = \left(1 - \frac{37}{60}\right) = \frac{23}{60}$$

$$(Q + R)'s \text{ 1 hour's work} = \left(\frac{1}{10} + \frac{1}{12}\right) = \frac{11}{60}$$

Now,  $\frac{11}{60}$  work is done by Q and R in 1 hour.

$$\text{So, } \frac{23}{60} \text{ work will be done by Q and R in } \left(\frac{60}{11} \times \frac{23}{60}\right) = \frac{23}{11}$$

hours = 2 hours.

So, the work will be finished approximately 2 hours after 11 a.m. i.e., around 1 p.m.

23. (a) B's daily earning = Rs.  $(300 - 188) = \text{Rs. } 112$ .

$$\text{A's daily earning} = \text{Rs. } (300 - 152) = \text{Rs. } 148.$$

$$\text{C's daily earning} = \text{Rs. } [300 - (112 + 148)] = \text{Rs. } 40$$

24. (b) Let 1 man's 1 day's work =  $x$  and 1 woman's 1 day's work =  $y$ .

$$\text{Then, } 4x + 6y = \frac{1}{8} \text{ and } 3x + 7y = \frac{1}{10}.$$

Solving these two equations, we get:

$$x = \frac{11}{400}, y = \frac{1}{400}.$$

$$\therefore 1 \text{ woman's 1 day's work} = \frac{1}{400}$$

$$\Rightarrow 10 \text{ women's 1 day's work} = \left(\frac{1}{400} \times 10\right) = \frac{1}{40}$$

Hence, 10 women will complete the work in 40 days.

25. (a) Let 1 man's 1 day work =  $x$  and 1 boy's 1 day's work =  $y$ .

$$\text{Then, } 6x + 8y = \frac{1}{10} \text{ and } 26x + 48y = \frac{1}{2}$$

$$\text{Solving these two equations, we get : } x = \frac{1}{100} \text{ and } y = \frac{1}{200}.$$

$$(15 \text{ men} + 20 \text{ boy})'s \text{ 1 days' work} = \left(\frac{15}{100} + \frac{20}{200}\right) = \frac{1}{4}$$

$\therefore$  15 men and 20 boys can do the work in 4 days.

26. (b)  $(20 \times 16)$  women can complete the work in 1 day.

$$\therefore 1 \text{ woman's 1 day's work} = \frac{1}{320}$$

$(16 \times 15)$  men can complete the work in 1 day.

$$\therefore 1 \text{ man's 1 day's work} = \frac{1}{240}.$$

$$\text{So, required ratio} = \frac{1}{240} : \frac{1}{320} = 4 : 3$$

27. (c) 10 men's 1 day's work =  $\frac{1}{15}$ ;

$$15 \text{ women's 1 day's work} = \frac{1}{12}.$$

$$(10 \text{ men} + 15 \text{ women})'s \text{ 1 day's work} = \left(\frac{1}{5} + \frac{1}{12}\right) = \frac{9}{60} = \frac{3}{20}.$$

$$\therefore 10 \text{ men and 15 women will complete the work in } \frac{3}{20} = 6 \frac{2}{3} \text{ days}.$$

28. (e)  $(7 \times 12)$  men can complete the work in 1 day.

$$\therefore 1 \text{ man's 1 day's work} = \frac{1}{84}.$$

$$7 \text{ men's 5 days' work} = \left(\frac{1}{12} \times 5\right) = \frac{5}{12}.$$

$$\text{Remaining work} = \left(1 - \frac{5}{12}\right) = \frac{7}{12}.$$

$$5 \text{ men's 1 day's work} = \left(\frac{1}{84} \times 5\right) = \frac{5}{84}.$$

$$\frac{5}{84} \text{ work is done by them in 1 day.}$$

$$\frac{7}{12} \text{ work is done by them in}$$

$$\left(\frac{84}{5} \times \frac{7}{12}\right) = \frac{49}{5} \text{ days} = 9 \frac{4}{5} \text{ days}$$

29. (a) 1 man's 1 day's work =  $\frac{1}{108}$ .

$$12 \text{ men's 6 days' work} = \left(\frac{1}{9} \times 6\right) = \frac{2}{3}.$$

$$\text{Remaining work} = \left(1 - \frac{2}{3}\right) = \frac{1}{3}.$$

$$18 \text{ men's 1 day's work} = \left(\frac{1}{108} \times 18\right) = \frac{1}{6}.$$

$$\frac{1}{6} \text{ work is done by them in 1 day.}$$

$$\therefore \frac{1}{3} \text{ work is done by them in } \left(6 \times \frac{1}{3}\right) = 2 \text{ days}.$$

30. (a) Let 1 woman's 1 day's work =  $x$ .

$$\text{Then, 1 man's 1 day's work} = \frac{x}{2} \text{ and 1 child's 1 day's work} = \frac{x}{4}.$$

$$\text{So, } \left(\frac{3x}{4} + 4x + \frac{6x}{4}\right) = \frac{1}{7} \Rightarrow \frac{28x}{4} = \frac{1}{7}$$

$$\Rightarrow x = \left(\frac{1}{7} \times \frac{4}{28}\right) = \frac{1}{49}$$

$\therefore$  1 woman alone can complete the work in 49 days.

So, to complete the work in 7 days, number of women

$$\text{required} = \left(\frac{49}{7}\right) = 7.$$

**SPEED TEST 12**

1. (b) Work done by (A + B) in 1 day =  $\frac{1}{12}$   
 Work done by (B + C) in 1 day =  $\frac{1}{16}$   
 Let C finishes the work in x days.  
 Then, work done by C in 1 day =  $\frac{1}{x}$   
 We have, A's 5 days' work + B's 7 days' work + C's 13 days' work = 1  
 or [(A + B)'s 5 days' + (B + C)'s 2 days' + C's 11 days'] work = 1  
 or  $\frac{5}{12} + \frac{2}{16} + \frac{11}{x} = 1$  or  $x = 24$  days
2. (d) Part of the tank filled by the three pipes working simultaneously in one hour is =  $\frac{1}{5} + \frac{1}{6} - \frac{1}{12} = \frac{17}{60}$   
 i.e. it takes  $\frac{60}{17}$  hours to fill up the tank completely.  
 Now,  $\frac{1}{2}$  of the tank is filled with all the pipes open, simultaneously together in  $\frac{60}{17} \times \frac{1}{2} = 1\frac{13}{17}$  hours
3. (b) Let Sunil finishes the job in x hours.  
 Then, Ramesh will finish the job in  $\frac{x}{2}$  hours.  
 We have,  $x - \frac{x}{2} = 3 \Rightarrow x = 6$   
 Therefore, Sunil finishes the job in 6 hours and Ramesh in 3 hours.  
 Work done by both of them in 1 hour =  $\frac{1}{6} + \frac{1}{3} = \frac{1}{2}$   
 They together finish the piece of work in 2 hours.
4. (d) Let the exhaust tap empties the tank in x minutes.  
 Then,  $\frac{1}{12} + \frac{1}{15} - \frac{1}{x} = \frac{1}{20}$  or  $\frac{1}{x} = \frac{1}{12} + \frac{1}{15} - \frac{1}{20}$   
 or  $\frac{1}{x} = \frac{5+4-3}{60} = \frac{6}{60} = \frac{1}{10}$  or  $x = 10$  min
5. (d) (Mother + Daughter)'s one day's work =  $\frac{1}{4}$   
 Remaining work =  $\frac{3}{4}$   
 Mother's one day's work =  $\frac{1}{6}$   
 Daughter's one day's work =  $\frac{1}{4} - \frac{1}{6} = \frac{1}{12}$   
 $\frac{1}{12}$  work is done by the daughter in 1 day.  
 Therefore,  $\frac{3}{4}$  work will be done by the daughter in  $\frac{12 \times 3}{4} = 9$  days
6. (a)  $15W = 10M$   
 Now,  $5W + 4M = 5W + \frac{4 \times 15}{10}W = 5W + 6W = 11W$   
 Now, 15 women can complete the project in 55 days, then 11 women can complete the same project in  $\frac{55 \times 15}{11} = 75$  days

7. (b)  $m_1 \times d_1 \times t_1 \times w_2 = m_2 \times d_2 \times t_2 \times w_1$   
 $24 \times 10 \times 8 \times 1 = m_2 \times 6 \times 10 \times 1$   
 $\Rightarrow m_2 = \frac{24 \times 10 \times 8}{6 \times 10} = 32$  men
8. (b) (A + B)'s 2 day's work =  $2 \left( \frac{1}{18} + \frac{1}{9} \right) = \frac{2}{6} = \frac{1}{3}$   
 Remaining work =  $1 - \frac{1}{3} = \frac{2}{3}$   
 (A + B + C)'s one day's work =  $\left( \frac{1}{18} + \frac{1}{9} + \frac{1}{6} \right) = \frac{1}{3}$   
 1/3 work in one day is completed if all of them work together. Hence, 2/3 work will be completed by A, B and C in 2 days. Total number of days taken to finish the work is  $2 + 2 = 4$  days.
9. (b) Let the worker worked for (40 + x) hours.  
 Now,  $\frac{56}{35} \times 40 + \frac{x \times 1.5 \times 56}{35} = 88$  or  $2.4x = 24$   
 $\Rightarrow x = 10$  hours  
 The worker worked for (40 + 10) = 50 hours
10. (b) B's one day work =  $\frac{1}{6} - \frac{1}{10} = \frac{1}{15}$   
 Hence, B can do the work alone in 15 days.
11. (c) Let the leak empties the tank in x hours.  
 Now,  $\frac{1}{5} - \frac{1}{x} = \frac{1}{6}$  or  $\frac{1}{x} = \frac{1}{5} - \frac{1}{6} = \frac{1}{30}$  or  $x = 30$  hrs.
12. (c) Let pipe A fills the cistern in x minutes.  
 Therefore, pipe B will fill the cistern in (x + 5) minutes.  
 Now,  $\frac{1}{x} + \frac{1}{x+5} = \frac{1}{6} \Rightarrow x = 10$   
 Thus, the pipes A and B can fill the cistern respectively in 10 minutes and 15 minutes,
13. (a) Work done together in one day =  $\frac{1}{8} + \frac{1}{10} = \frac{9}{40}$   
 Therefore, the work will be completed together in  $\frac{40}{9}$  or  $4\frac{4}{9}$  days.
14. (a) Portion of the tank filled by all the pipes together in 1 hour =  $\frac{1}{10} + \frac{1}{12} - \frac{1}{20} = \frac{6+5-3}{60} = \frac{8}{60} = \frac{2}{15}$   
 Hence, the tank will be filled in  $\frac{15}{2}$  hours or  $7\frac{1}{2}$  hours.
15. (b) (A + B)'s one days' work =  $\frac{1}{10} + \frac{1}{15} = \frac{1}{6}$   
 (A + B)'s two days' work =  $\frac{2}{6} = \frac{1}{3}$   
 Remaining work =  $1 - \frac{1}{3} = \frac{2}{3}$   
 $\frac{1}{10}$  work is done by A in 1 day.  
 $\frac{2}{3}$  work is done by A in  $10 \times \frac{2}{3} = 6\frac{2}{3}$  days
16. (b) (A + B)'s 5 days' work =  $5 \left( \frac{1}{25} + \frac{1}{20} \right) = \frac{45}{100} = \frac{9}{20}$   
 Remaining work =  $\left( 1 - \frac{9}{20} \right) = \frac{11}{20}$   
 $\frac{11}{20}$  of the work would be finished by B in  $\frac{11}{\frac{11}{20}} = 11$  days.



17. (a) Part of the capacity of the cistern emptied by the leak in one

$$\text{hour} = \left(\frac{1}{6} - \frac{1}{7}\right) = \frac{1}{42} \text{ of the cistern.}$$

The whole cistern will be emptied in 42 hours.

18. (b)  $(2M + 7C)$ 's 1 day's work =  $\frac{1}{4}$

$$\Rightarrow \text{work will be completed by } 4(2M + 7C) = 8M + 28C$$

$$\text{Again, } (4M + 4C)\text{'s 1 day's work} = \frac{1}{3}$$

i.e.  $12M + 12C$  will complete the work.

$$\Rightarrow 8M + 28C = 12M + 12C \text{ or } M = 4C$$

Therefore,  $4M + 4C = 5M$

Since  $5M$  complete a work in 3 days,

1 M will complete it in 15 days.

19. (c) Units of work done by A in 1 day =  $\frac{1}{9}$

$$\text{Units of work done by B in 1 day} = \frac{15}{90} = \frac{1}{6}$$

Hence, B alone will complete the work in 6 days.

20. (a) Work done by A and B in 5 days =  $\left(\frac{1}{10} + \frac{1}{15}\right) \times 5 = \frac{5}{6}$

$$\text{Work remaining} = 1 - \frac{5}{6} = \frac{1}{6}$$

$\therefore$  C alone can do the work in  $6 \times 2 = 12$  days

$$\text{Ratio of their share work} = \frac{5}{10} : \frac{5}{15} : \frac{2}{12} = 3 : 2 : 1$$

Share of wages = Rs 225, Rs 150, Rs 75.

21. (a) Let it takes  $t$  minutes to completely fill the tank.

$$\text{Now, } \frac{t}{6} + \frac{t}{8} + \frac{t-6}{12} = 1$$

$$\text{or } \frac{4t + 3t + 2t - 12}{24} = 1 \text{ or } 9t - 12 = 24$$

$$\text{or } 9t = 36 \text{ or } t = \frac{36}{9} = 4 \text{ min.}$$

22. (b) In one hr. B finishes  $\frac{1}{20}$  of the work.

$$\text{In one hr. A finishes } \frac{1}{20} \times \frac{3}{2} = \frac{3}{40} \text{ of the work.}$$

$$\text{A+B finish } \frac{2+3}{40} = \frac{1}{8} \text{ of the work in 1 hr.}$$

Both of them will take 8 hrs. to finish the work.

23. (a) Work done by 3rd tap in 1 min

$$= \frac{1}{15} - \left(\frac{1}{10} + \frac{1}{12}\right) = \frac{-7}{60} \text{ part}$$

-ve sign denotes that 3rd tap empty the tank.

Since, 3rd tap empty  $\frac{7}{60}$  part of the tank in 1 min.

$$\therefore \text{3rd tap empty the full tank in } \frac{60}{7} \text{ min. or } = 8\frac{4}{7} \text{ min.}$$

$\approx 8$  min. 34 seconds

24. (b) Let the waste pipe can empty the cistern in  $x$  minutes.

$$\therefore \frac{1}{12} + \frac{1}{15} - \frac{1}{x} = \frac{1}{20}$$

$$\Rightarrow \frac{1}{x} = \frac{1}{12} + \frac{1}{15} - \frac{1}{20} = \frac{15+12-9}{180} = \frac{1}{10}$$

Thus, the waste pipe take 10 minutes to empty the full cistern.

25. (a) The two filler tap can fill the  $\left(\frac{1}{20} + \frac{1}{30}\right)$  or  $\frac{1}{12}$  part of tank in 1 min.

$\therefore$  The two filler tap can fill the tank in 12 min.

$\therefore$  Half of the tank will be filled in 6 min.

Hence, it took  $(24 - 6 = 18 \text{ min.})$  to fill the remaining half of the tank when the outlet pump is opened. Thus, the total time required to empty half of the tank

$$= \frac{18 \times 6}{18 - 6} = \frac{18 \times 6}{12} = 9 \text{ minutes}$$

Thus, capacity of the tank =  $100 \times 9 \times 2 = 1800$  litres

26. (c) Time taken by one tap to fill the cistern =  $\frac{1}{10}$  hr

and second tap fills the cistern =  $\frac{1}{15}$  hr

The time taken by the both tap to fill the cistern

$$= \frac{1}{10} + \frac{1}{15} = \frac{3+2}{30} = \frac{5}{30} = \frac{1}{6}$$

Thus, both tap fill the cistern in 6 minutes. Now, given when

waste pipe is open, both can fill the cistern in  $\frac{1}{18}$  hr.

Time taken by waste pipe to empty the cistern

$$= \frac{1}{6} - \frac{1}{18} \text{ hrs} = \frac{3-1}{18} = \frac{2}{18} = \frac{1}{9} \text{ minutes}$$

Hence, in 9 minutes waste pipe can empty the cistern.

27. (b) Work of pipe P in 16 minutes =  $\frac{1}{24} \times 16 = \frac{2}{3}$

$$\text{Similarly, work of pipe Q in 16 minutes} = \frac{1}{32} \times 16 = \frac{1}{2}$$

$$\therefore \text{Remaining work of pipe Q} = 1 - \frac{1}{2} = \frac{1}{2}$$

Now, Time taken by pipe P =  $\frac{1}{2} \times 24 = 12$  minutes.

Hence, first pipe (ie P) should be turned off after 12 minutes.

28. (b) Work of both tap for 1 hour =  $\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$

Hence, both tap will fill the cistern in 6 hours.

29. (c) In 1 hour, empty part =  $\frac{1}{8}$  th.

When tap is turned on, then

empty part in 1 hour =  $\frac{1}{12}$  th.

$\therefore$  Part of cistern emptied, due to leakage in

$$1 \text{ hour} = \frac{1}{8} - \frac{1}{12} = \frac{3-2}{24} = \frac{1}{24} \text{ th}$$

Now, In 1 min, cistern fill = 6 lit

$\therefore$  In  $\frac{1}{60}$  hr, cistern fill = 6 lit.

$\therefore$  Cistern can hold =  $6 \times 60 \times 24$  litre = 8640 litre.

30. (b)

Men	Working hours	Days	Work
15	8	12	1
$x + \frac{15}{2} + \frac{5}{2}$	6	30	$\frac{9}{4}$

Using  $M_1 T_1 W_2 = M_2 T_2 W_1$ , we get

$$15 \times (8 \times 12) \times \frac{9}{4} = (x + 10)(6 \times 30) \times 1$$

$$\Rightarrow x + 10 = \frac{8 \times 12 \times 9}{2 \times 6 \times 4} = 18$$

$$\Rightarrow x = 18 - 10 = 8$$

Hence, 8 men must be associated

**SPEED TEST 13**

1. (d) Cost price of 30 kg wheat =  $30 \times 45 = ₹ 1350$   
 Cost price of 30 kg wheat + 25% profit = Selling Price  
 $= 1350 \times 1.25 = ₹ 1687.50$   
 40% of 30 kg wheat =  $30 \times 0.40 = 12$  kg  
 Selling price of 12 kg wheat =  $12 \times 50 = ₹ 600$   
 Remaining 18 kg wheat's selling price  
 $= 1687.50 - 600 = ₹ 1087.50$   
 $\therefore$  Selling price of 1 kg wheat =  $\frac{1087.50}{18} = ₹ 60$
2. (e) Cost of one apple = ₹ 25  
 $\therefore$  Cost of 12 apples =  $25 \times 12 = ₹ 300$   
 Amount paid = ₹ 250  
 Discount =  $300 - 250 = ₹ 50$   
 $\therefore$  % Discount =  $\frac{50 \times 100}{300} = 17\%$  (approx.)
3. (a) Suppose cost price = ₹ x  
 90% of 15000 = 108% of x  
 $15000 \times \frac{90}{100} = x \times \frac{108}{100}$   
 $150 \times 90 = x \times \frac{108}{100}$   
 $x = \frac{150 \times 90 \times 100}{108} = ₹ 12500$
4. (b) Total cost price =  $11250 + 150 + 800 = ₹ 12200$   
 Selling price =  $12200 \times \frac{115}{100} = ₹ 14030$
5. (d) Cost price of watch =  $\frac{4080 + 3650}{2} = \frac{7730}{2} = 3865$
6. (c) The cost price of an article =  $\frac{996 + 894}{2} = \frac{1890}{2} = ₹ 945$
7. (a) There is always a loss in such case and the loss  
 $\% \left( \frac{10}{100} \right)^2 = 1\%$
8. (b) By rule of fraction :  $153 \left( \frac{100}{90} \right) \left( \frac{120}{100} \right) = ₹ 204$
9. (a) CP =  $240 \left( \frac{100}{125} \right) = ₹ 192$   
 $\therefore$  profit =  $\frac{216 - 192}{192} \times 100 = \frac{25}{2} = 12\frac{1}{2}\%$
10. (d) Let the cost price be = ₹ 100.  
 $\frac{2}{3}$ rd of original SP =  $100 - 20\%$  of 100 = ₹ 80  
 $\therefore$  Original SP =  $\frac{80 \times 3}{2} = ₹ 120$   
 $\therefore$  % profit =  $\frac{120 - 100}{100} \times 100 = 20\%$
11. ( ) He must have purchased less number of oranges for a rupee, as he bears a loss. Therefore, no. of oranges purchased for a rupee =  $32 \left( \frac{60}{100} \right)$ . Now, to gain 20%, he must sell less number of oranges for a rupee. And that number is  $32 \left( \frac{60}{100} \right) \left( \frac{100}{120} \right) = 16$
12. (b) Suppose he invested ₹  $16 \times 12$ .  
 Then, CP of 1 article = ₹  $\frac{16 \times 12}{16} = ₹ 12$   
 and SP of 1 article = ₹  $\frac{16 \times 12}{12} = ₹ 16$

13. (d) Suppose the S.P. per metre = ₹ 1  
 Then, S.P. of 33 metres = ₹ 33  
 Profit = ₹ 11  
 $\therefore$  C.P. of 33 metres =  $33 - 11 = ₹ 22$   
 $\therefore$  % Profit =  $\frac{11}{22} \times 100 = 50\%$
14. (b) Difference in 5% profit = Diff. in ₹ 10 profit  
 $\therefore 100\% = \frac{10}{5} \times 100 = ₹ 200$
15. (b) Let C.P. = ₹  $\frac{x}{dozen} = ₹ \frac{100x}{12}$  per hundred and SP  $\frac{8x}{hundred}$   
 $\therefore$  % profit =  $\frac{8x - \frac{100x}{12}}{\frac{100x}{12}} \times 100 = \frac{96x - 100x}{12 \times 100x} \times 100 \times 12$   
 $₹ = -4\%$
16. (b) Suppose he has x litre of milk in total.  
 Thus, we have  $5x + 200 = 6x - 150$   
 or,  $x(6 - 5) = 200 + 150$   
 $\therefore x = 350$  litres.  
 $\therefore$  each vessel contains = 35 litres
17. (a) First Purchased for  $250 \left( \frac{100}{125} \right) \left( \frac{100}{125} \right) \left( \frac{100}{125} \right)$   
 $= 250 \left( \frac{4}{5} \right) \left( \frac{4}{5} \right) \left( \frac{4}{5} \right) = ₹ 128$
18. (b) Cost Price =  $\frac{\text{Selling price}}{1 - \frac{1}{7}} = \frac{60 \times 7}{6} = ₹ 70$   
 $\therefore$  % profit =  $\frac{77 - 70}{70} \times 100 = 10\%$
19. (c) Cost Price =  $\frac{7.5 \times 100}{\text{Difference in \% profit}} = \frac{7.5 \times 100}{22 - 7} = ₹ 50$
20. (a) He purchases 64 bananas more for 40% of ₹ 40 or, ₹ 16.  
 $\therefore$  Reduced price per dozen =  $\frac{16}{64} \times 12 = ₹ 3$
21. (d) Let the listed price be = ₹ 100  
 Then, CP =  $\frac{3}{4} \times 100 = ₹ 75$  and SP =  $\frac{3}{2} \times 100 = ₹ 150$   
 $\therefore$  % profit =  $\frac{150 - 75}{75} \times 100 = 100\%$
22. (a) He purchased  $15 \left( \frac{100 - 9}{100} \right)$  for a rupee.  
 Now to gain 5%, he must sell  $15 \left( \frac{91}{100} \right) \left( \frac{100}{105} \right) = 13$  for a rupee
23. (d) Let the CP be = ₹ 100  
 Actual SP =  $100 + 20\%$  of 100 = ₹ 120  
 $\therefore$  Marked Price =  $120 \times \frac{100}{100 - 4} = \frac{120 \times 100}{96} = ₹ 125$   
 Marked Price is  $\frac{125 - 100}{96} \times 100$   
 $= 25\%$  more than the cost price.
24. (c) Let cost price = x  
 Then we have,  $x \left( \frac{95}{100} \right) \left( \frac{110}{100} \right) = x \left( \frac{105}{100} \right) - 1$   
 or,  $x = \frac{100 \times 100}{105 \times 100 - 95 \times 100} \times 200$   
 $\therefore$  Cost price = ₹ 200

25. (a) Suppose the cost price of the goods is ₹ 100.  
Then, selling price in the first case =  $100 \left( \frac{120}{100} \right) = ₹ 120$   
Therefore, marked price = ₹ 120  $\left( \frac{100}{100-10} \right) = ₹ \frac{400}{3}$   
Now, selling price in the second case  
=  $\frac{400}{3} \left( \frac{100-20}{100} \right) = ₹ \frac{320}{3}$   
Therefore, % profit =  $\frac{320}{3} - 100$  ( $\because$  CP = 100)  
=  $\frac{20}{3} = 6 \frac{2}{3}\%$
26. (b) Profit on the first table =  $400 \left( \frac{25}{125} \right) = ₹ 80$   
 $\Rightarrow$  he loses ₹ 80 on the second table (Since there is neither profit nor loss)  
 $\therefore$  Cost price of second table =  $\frac{80}{10} \times 100 = ₹ 800$
27. (b) Total selling price of two horses =  $2 \times 720 = ₹ 1,440$   
The CP of first horse =  $720 \times \frac{100}{125} = ₹ 576$   
The CP of second horse =  $720 \times \frac{100}{75} = ₹ 960$   
Total CP of two horses =  $576 + 960 = ₹ 1,536$   
Therefore, loss = ₹ 1,536 - ₹ 1,440 = ₹ 96  
 $\therefore$  % loss =  $\frac{96 \times 100}{1536} = 6.25\%$
28. (b) Shortcut :  
 $\frac{100(10-7) - 2 \times 10 \times 7}{200 + 10 - 7} = \frac{160}{203}$  % gain as the sign is +ve.
29. (d) Amount received by all the officers  
=  $45 \times 25000 = 11,25,000$   
Amount received by each clerk =  $\frac{3}{5} \times 25000 = 15000$   
Amount received by all the clerks =  $80 \times 15000 = 12,00,000$   
Total amount of profit earned =  $11,25,000 + 12,00,000 = ₹ 23.25$  lakh.
30. (e) Let the cost price of the articles be ₹100  
Marked Price = ₹130  
After giving a discount of 10% the selling price of the articles  
=  $0.9 \times 130 = 117$   
So, actual profit per cent =  $\frac{(117-100)}{100} \times 100 = 17\%$

**SPEED TEST 14**

1. (c) Average speed of a tractor =  $\frac{575}{23} = 25$  km/h  
The speed of a bus in an hour =  $25 \times 2 = 50$  km  
The speed of a car in an hour =  $50 \times \frac{9}{5} = 90$  km  
So, the distance covered by car in 4 h is  
 $90 \times 4 = 360$  km
2. (b) Total distance =  $64 \times 8 = 512$  km  
Now speed =  $\frac{512}{6} = 85$  km/h
3. (e) Suppose the speed of boat in still water is x km/h and speed of stream is y km/h  
Speed of boat in downstream =  $(x + y)$  km/h  
 $\therefore x + y = 32$  ..... (i)  
Speed of boat in downstream =  $(x - y)$  km/h  
 $\therefore x - y = 28$  ..... (ii)  
Add. Eqs. (i) and (ii), we get  
 $2x = 60$   
 $x = 30$  km/h

4. (a) Speed of bus =  $\frac{480}{8} = 60$  km/h  
Speed of train =  $\frac{60 \times 4}{3} = 80$  km/h  
Speed of train : Speed of car = 16 : 15  
 $\therefore$  Speed of car =  $\frac{80}{16} \times 15 = 75$  km/h  
Distance covered by car in 6 h r =  $75 \times 6 = 450$  km
5. (c) Distance travelled by Car A =  $65 \times 8 = 520$  km  
Distance travelled by Car B =  $70 \times 4 = 280$  km  
Ratio =  $\frac{520}{280} = 13 : 7$
6. (a) Distance between Ramgarh and Devgarh =  $\frac{50 \times 44}{60} = \frac{110}{3}$   
Average speed of the bus is increased by 5 km/hr then the speed of the bus = 55 km/hr  
Required time =  $\frac{\text{Distance}}{\text{Speed}} = \frac{110}{3} \times \frac{60}{55} = 40$  min
7. (a) Distance covered in 4 seconds =  $\frac{30}{7} \times 7$  metres  
 $\therefore$  Speed in m/s =  $\frac{30}{4}$   
 $\therefore$  Speed in km/hr =  $\frac{30}{4} \times \frac{18}{5} = 27$  km/hr
8. (b) Walking + Riding = 6 hrs 30 min .....(1)  
2 Riding = 6 hrs 30 min - 2 hrs 10 min  
= 4 hrs 20 min .....(2)  
Solving the above two relations (equations);  
 $2 \times (1) - (2)$  gives  
2 walking = 13 hrs - 4 hrs 20 min = 8 hrs 40 minutes
9. (c)  $S_1 = 10 \times \frac{18}{5} = 36$  km/hr  
 $S_2 = 36 + \frac{36}{3} = 48$  km/hr  
 $\therefore$  Difference in time =  $T_1 - T_2 = 7 \text{ am} - 7.20 \text{ am} = -\frac{1}{3}$  hr  
 $\therefore$  Distance of meeting point from madras  
=  $36 \left[ \frac{68 - 48 \left( -\frac{1}{3} \right)}{36 + 48} \right] = 36 \left[ \frac{68 + 16}{36 + 48} \right] = 36$  km

10. (a)

	Speed	Starting time
A	3 km	1 o'clock
B	4 km	2 o'clock
C	5 km	3 o'clock

A takes a lead of 3 km from B.  
Relative speed of A and B =  $4 - 3 = 1$  km/hr  
Thus, A and C are  $12 - 10 = 2$  apart at 5 o'clock.  
 $\therefore$  B catches A after  $\frac{3}{1} = 3$  hrs, i.e., at  $2 + 3 = 5$  o'clock.  
 $\therefore$  A returns at 5 o'clock and from a distance of  $3 \times 4 = 12$  km from Poona.  
In the mean time C covers a distance of  $5 \times 2 = 10$  km from Poona.  
Thus, A and C are  $12 - 10 = 2$  km apart at 5 O'clock.  
Relative speed of A and C =  $3 + 5 = 8$  km/hr.  
Thus, they meet after  $\frac{2}{8} = \frac{1}{4}$  hr = 15 min.  
Thus, C will get the message at 5.15 o'clock.

11. (b) Distance =  $\frac{\text{Time difference} \times S_1 \times S_2}{S_1 - S_2}$   
 Where,  $S_1$  and  $S_2$  are the speeds of the two persons.  
 $\therefore$  distance =  $\frac{\frac{1}{2} \times 3 \times \frac{15}{4}}{\frac{15}{4} - 3} = \frac{15}{2} = 7.5$  km
12. (a) Let the distance be  $x$  km. Then,  
 total time =  $\frac{x}{2 \times 21} + \frac{x}{2 \times 24} = 10$  hrs.  
 or,  $\frac{x(24 + 21)}{2 \times 21 \times 24} = 10 \therefore x = \frac{10 \times 2 \times 21 \times 24}{45} = 224$  km
13. (b) Let the speed of train be  $x$  km/hr.  
 Then, speed of horse transit =  $\frac{x}{3}$  km/hr  
 and speed of steamer =  $\frac{2x}{3}$  km/hr  
 Now, total time =  $\frac{120 \times 3}{2x} + \frac{450}{x} + \frac{60 \times 3}{x} = 13\frac{1}{2}$   
 or  $\frac{1}{x} = \frac{27}{2 \times 810} = \frac{1}{60} \therefore x = 60$  km/hr.
14. (b) Relative speed =  $42 - 30 = 12$  km/hr =  $12 \times \frac{5}{18} = \frac{10}{3}$  m/s  
 Time =  $\frac{\text{Total length of both the trains}}{\text{Relative speed}} = \frac{84 + 60}{\frac{10}{3}}$   
 $= \frac{144 \times 3}{10} = 43.2$  seconds
15. (a) Relative speed of the train and first person  
 $\frac{75}{15} = 10$  m/s =  $\frac{18}{5} = 3.6$  m/s  
 $\therefore$  speed of the train =  $36 + 6 = 42$  km/hr  
 Now, relative speed of the train and 2nd person  
 $= \frac{75}{27} \times 4$  m/s =  $\frac{300}{27} \times \frac{18}{5} = 40$  km/hr  
**Shortcut:** Speed of 2nd person = Relative speed of train with respect to 1st person + Speed of first person - Relative speed of train with respect to 2nd person  
 $= \left(\frac{75}{15} \times \frac{18}{5}\right) + 6 - \left(\frac{75}{27} \times 4 \times \frac{18}{5}\right) = 36 + 6 - 40 = 2$  km/hr
16. (a) Speed of the train =  $\frac{120}{5} = 24$  m/s  
 $\therefore$  time taken by the train to pass the platform  
 $= \frac{120 + 180}{24} = 12.5$  seconds
17. (c) Length of the train = Relative speed  $\times$  time  
 $= (40 - 25) \left(\frac{5}{18}\right) \times 48 = \frac{15 \times 5 \times 48}{18} = 200$  m
18. (c) Let the length of the train =  $x$  m  
 Then, speed of the train =  $\frac{x}{15} = \frac{x + 100}{25}$   
 or,  $25x = 15x + 1500$  or,  $10x = 1500$   
 $\therefore x = 150$  m
19. (c) Let the length of train =  $x$  m.  
 We know that, when train and man are moving in the same direction relative speed = Speed of Train - Speed of Man  
 $\therefore$  Speed of train = Relative speed + Speed of man

- Now,  
 Speed of train in two cases =  $\frac{x}{9} + 2 \left(\frac{5}{18}\right) = \frac{x}{10} + 4 \left(\frac{5}{18}\right)$   
 or,  $\frac{x}{9} - \frac{x}{10} = \frac{10}{9} - \frac{5}{9}$  or,  $\frac{x}{90} = \frac{5}{9}$   
 $\therefore x = \frac{5}{9} \times 90 = 50$  m.
20. (b) Boat's upstream speed =  $\frac{40}{8} = 5$  km/hr  
 Boat's downstream speed =  $\frac{36}{6} = 6$  km/hr  
 $\therefore$  Speed of boat in still water =  $\frac{5 + 6}{2} = 5.5$  km/hr
21. (a) Let the distance be  $x$  km.  
 Now, upstream speed =  $9 - 3 = 6$  km/hr.  
 and downstream speed =  $9 + 3 = 12$  km/hr.  
 Total time taken in upstream and downstream journey  
 $= \frac{x}{6} + \frac{x}{12} = 3$   
 or,  $\frac{18x}{72} = 3 \therefore x = \frac{3 \times 72}{18} = 12$  km
22. (c) Same as Q. 3.  
 Distance =  $\frac{1 \times \{(5)^2 - (1)^2\}}{2 \times 5} = \frac{24}{10} = 2.4$  km.
23. (a) The Quicker formula given in Q.3 can be written in the form:  
 Total time =  $\frac{2 \times \text{Distance} \times \text{Speed in still water}}{(\text{Speed in still water}) - (\text{Speed in current})^2}$   
 $= \frac{2 \times 22.5 \times 6}{(6)^2 - (1.5)^2} = 8$  hrs.
24. (b) Upstream speed =  $\frac{16}{5}$  km/hr  
 Downstream speed =  $\frac{28}{5}$  km/hr  
 $\therefore$  Velocity of current =  $\frac{\frac{28}{5} - \frac{16}{5}}{2} = \frac{12}{10} = 1.2$  km/hr
25. (b) Upstream speed =  $\frac{1}{6} \times 60$  km/hr = 6 km/hr  
 Downstream speed =  $\frac{1}{6} \times 60$  km/hr = 10 km/hr  
 $\therefore$  Velocity of current =  $\frac{10 - 6}{2} = 2$  km/hr
26. (a) Let the speed of A in still water =  $x$  km/hr  
 Then, downstream speed =  $\left(x + \frac{9}{4}\right)$  km/hr  
 and upstream speed =  $\left(x - \frac{9}{4}\right)$  km/hr  
 Now, distance =  $6 \left(x + \frac{9}{4}\right) = 9 \left(x - \frac{9}{4}\right)$   
 or,  $6x + \frac{27}{2} = 9x - \frac{81}{4}$  or  $3x = \frac{135}{4}$   
 $\therefore x = \frac{135}{4 \times 3} = \frac{45}{4} = 11\frac{1}{4}$  km/hr
27. (c) Let the speed of boat in still water =  $x$  km/hr  
 Speed of current = 4 km/hr.  
 Speed upstream =  $(x - 4)$  km/hr  
 Speed downstream =  $(x + 4)$  km/hr  
 Now,  $\frac{6}{x - 4} + \frac{6}{x + 4} = 2$

$$\text{or, } \frac{6(x+4)(x-4)}{x^2-16} = 2$$

$$2x^2 - 32 = 6x + 6x$$

$$\text{or, } x^2 - 6x - 16 = 0$$

$$\text{or, } (x-8)(x+2) = 0$$

$$\therefore x = 8 \text{ or } -2.$$

We reject the negative value.  
 $\therefore$  Speed of boat in still water = 8 km/hr

28. (e)

29. (b) Let the distance it travelled at the speed of 160 kmh<sup>-1</sup> be 'x' km.

$$\therefore \frac{x}{160} + \frac{(560-x)}{40} = 9.5$$

$$\frac{x+4(560-x)}{160} = 9.5$$

$$x + 2240 - 4x = 1520$$

$$\therefore 3x = 720$$

$$\therefore x = 240 \text{ km}$$

30. (a) Speed of first train =  $\frac{120}{4} = 30 \text{ms}^{-1}$

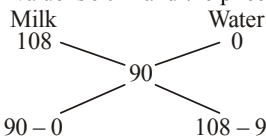
Total length when it passed another train = 120 + 210 = 330m

$$\therefore \text{Relative speed} = \frac{330}{15} = 22 \text{ms}^{-1}$$

$$\therefore \text{Speed of second train} = 30 - 22 = 8 \text{ms}^{-1}$$

**SPEED TEST 15**

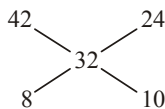
1. (c) The mean value is 90 P and the price of water is 0 P.



By the Alligation Rule, Milk and water are in the ratio of 5 : 1.  
 $\therefore$  quantity of milk in the mixture = 5 × 16 = 80 litres.

2. (b) Cost price of mixture =  $40 \times \frac{100}{125} \text{ P} = 32 \text{P}$  per kg

By the rule of fraction

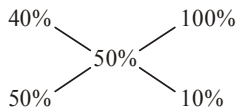


Ratio = 4 : 5

Thus, for every 5 kg of salt at 24 P, 4 kg of salt at 42P is used.

$$\therefore \text{the required no. of kg} = 25 \times \frac{4}{5} = 20.$$

3. (c) The existing solution has 40% sugar. And sugar is to be mixed; so the other solution has 100% sugar. So, by alligation method:

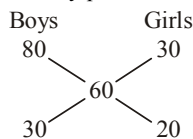


$\therefore$  The two mixtures should be added in the ratio 5 : 1.

$$\text{Therefore, required sugar} = \frac{300}{5} \times 1 = 60 \text{ gm}$$

4. (c) Here, alligation is applicable for 'money per boy or girl'.

$$\text{Mean value of money per student} = \frac{3900}{65} = 60 \text{P}$$



$\therefore$  Boys : Girls = 3 : 2

$$\therefore \text{Number of boys} = \frac{65}{3+2} \times 3 = 39$$

$$\text{and number of girls} = 65 - 39 = 26$$

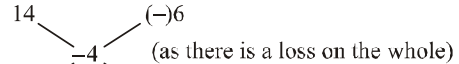
5. (c) In this question, the alligation method is applicable on prices, so we should get the average price of mixture.  
 SP of mixture = ₹ 20/litre; profit = 25%

$$\therefore \text{average price} = 20 \times \frac{100}{125} = ₹ 16/\text{litre}$$

6. (b) **Short-Cut-Method** : In such questions the ratio is

$$\text{water : milk} = 16 \frac{2}{3} : 100 = 1 : 6$$

7. (c) **I Part**      **II Part**

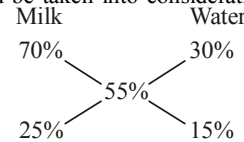


$$\therefore \text{ratio of quantities sold at 14% profit and 6% loss} = 2 : 18 = 1 : 9.$$

$$\therefore \text{quantity sold at 14% profit} = \frac{50}{1+9} \times 1 = 5 \text{ kg}$$

and sold at 6% loss = 50 - 5 = 45 kg.

8. (c) Here, the % values of milk and water that is taken from the vessel should be taken into consideration.



$$\Rightarrow 5 : 3$$

Ratio of milk to water = 5 : 3

$$\therefore \text{quantity of milk} = \frac{80}{5+3} \times 5 = 50 \text{ litres}$$

$$\text{and quantity of water} = \frac{80}{5+3} \times 3 = 30 \text{ litres}$$

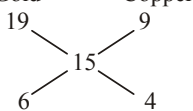
9. (c) Amount of liquid left after n operations, when the container originally contains x units of liquid from which y units in

$$\text{taken out each time is } x \left( \frac{x-y}{x} \right)^n \text{ units.}$$

Thus, in the above case, amount of milk left

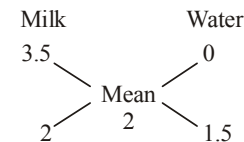
$$= 80 \left[ \frac{80-8}{80} \right]^3 \text{ kg} = 58.32 \text{ kg}$$

10. (b) Gold      Copper



$$\therefore \text{Gold : Copper} = 6 : 4 = 3 : 2$$

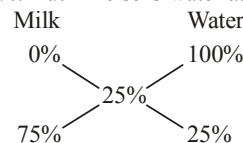
11. (e) This question can be solved in so many different ways. But the method of alligation method is the simplest of all the methods. We will apply the alligation on price of milk, water and mixture.



$$\therefore \text{ratio of milk and water should be } 2 : 1.5 = 4 : 3$$

$$\therefore \text{added water} = \frac{40}{4} \times 3 = 30 \text{ litres}$$

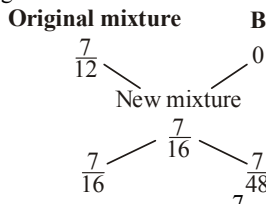
12. (d) We will apply alligation on % profit. If he sells the milk at CP, he gains 0%. But if he sells water at CP, he gains 100%.



Ratio of milk to water in the mixture should be 3 : 1

$$\therefore \text{\% of water in mixture} = \frac{1}{3+1} \times 100 = 25\%$$

13. (d) Apply alligation on fraction of A in each mixture.

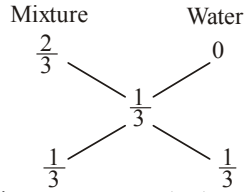


Ratio of original mixture to B =  $\frac{7}{16} : \frac{7}{48} = 3 : 1$

When 9 litres of B is mixed, original mixture should be  $\frac{9}{1} \times 3 = 27$  litres.

Therefore initial quantity in can = 27 + 9 = 36 litres.

14. (c) Apply the alligation on fraction of milk in each mixture.

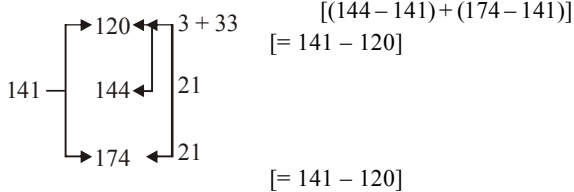


Ratio of mixture to water = 1 : 1

Therefore, if there is 60 litre of solution, 60 litres of water should be added.

15. (c) 1st wheat 120, 2nd wheat 144, 3rd wheat 174

following the above rule, we have,



Therefore, the required ratio = 36 : 21 : 21 = 12 : 7 : 7

16. (c) By the above theorem the required ratio is

$$\left(\frac{2}{2+1} + \frac{3}{3+1} + \frac{3}{3+2}\right) : \left(\frac{1}{2+1} + \frac{1}{3+1} + \frac{2}{3+2}\right)$$

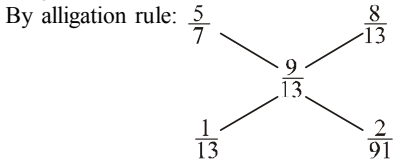
$$= \left(\frac{2}{3} + \frac{3}{4} + \frac{3}{5}\right) : \left(\frac{1}{3} + \frac{1}{4} + \frac{2}{5}\right)$$

$$= \frac{40+45+36}{3 \times 4 \times 5} : \frac{20+15+24}{3 \times 4 \times 5} = 121 : 59$$

17. (c) In vessel A, milk =  $\frac{5}{7}$  of the weight of mixture

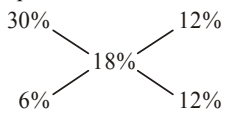
In vessel B, milk =  $\frac{8}{13}$  of the weight of mixture. Now, we

want to form a mixture in which milk will be  $\frac{9}{13}$  of the weight of this mixture.



$\therefore$  required proportion is  $\frac{1}{13} : \frac{2}{91} = 7 : 2$

18. (c) By the alligation rule, we find that wine containing 30% of spirit and wine containing 12% of spirit should be mixed in the ratio 1 : 2 to produce a mixture containing 18% of spirit.



Ratio = 6 : 12 = 1 : 2

This means that  $\frac{1}{3}$ rd of the butt of sherry was left, i.e. to say, the butler drew out  $\frac{2}{3}$ rd of the butt.

$\therefore \frac{2}{3}$ rd of the butt was stolen.

19. (b) Selling price of 150 kg wheat at 20% profit

$$= 150 \times 7 \left(\frac{120}{100}\right) = ₹ 1260$$

Selling price of 50 kg wheat at 10% profit

$$= 50 \times 7 \left(\frac{110}{100}\right) = ₹ 385$$

$\therefore$  Selling price per kg of remaining 100 kg wheat

$$= \frac{1260 - 385}{100} = ₹ 8.75$$

20. (d) In original mixture, % of liquid B =  $\frac{1}{4+1} \times 100 = 20\%$

In the resultant mixture, % of liquid B =  $\frac{3}{2+3} \times 100 = 60\%$

Replacement is made by the liquid B, so the % of B in second mixture = 100%

Then, by the method of Alligation :



$\therefore$  Ratio in which first and second mixtures should be added is 1 : 1. What does it imply? It simply implies that the reduced quantity of the first mixture and the quantity of mixture B which is to be added are the same.

$\therefore$  Total mixture = 10 + 10 = 20 litres

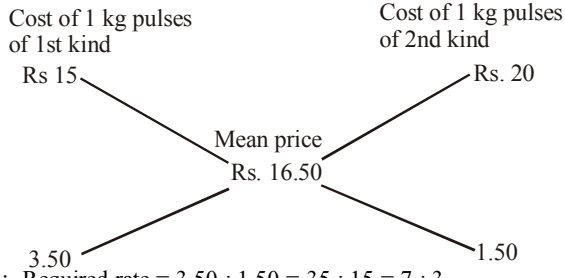
and liquid A =  $\frac{20}{5} \times 4 = 16$  litres

21. (e) Initially water (weight) = 45 gm & milk 15 gm. After added 15 gm

water the percentage of water =  $\frac{\text{weight of water}}{\text{total weight of mixture}}$

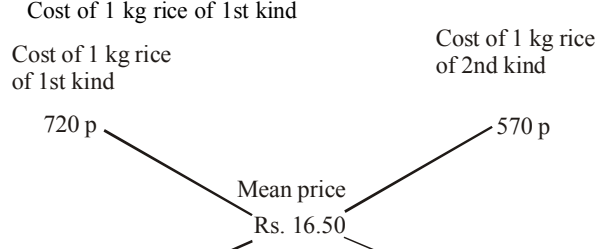
$$= \frac{60}{75} \times 100 = 80\%$$

22. (c) By the rule of alligation:



$\therefore$  Required rate = 3.50 : 1.50 = 35 : 15 = 7 : 3

23. (b) By the rule of alligation:



$\therefore$  Required rate = 60 : 90 = 2 : 3

**24. (a)** By the rule of alligation:  
 Cost of 1 kg tea of 1st kind  
 Cost of 1 kg tea of 2nd kind

6200 p	Mean price	7200 p
	Rs. 6450 p	
	750	250

∴ Required ratio = 750 : 250 = 3 : 1.

**25. (a)** By the rule of alligation:  
 C.P. of 1 litre of water  
 C.P. of 1 litre of milk

0	Mean price	Rs. 12
	Rs. 8	
	4	8

Ratio of water to milk = 4 : 8 = 1 : 2

**26. (a)** S.P. of 1 kg of the mixture = Rs. 68.20, Gain = 10%  
 C.P. of 1 kg of the mixture = Rs.  $\left(\frac{100}{110} \times 68.20\right)$  = Rs. 62.  
 By the rule of alligation, we have  
 Cost of 1 kg tea of 1st kind  
 Cost of 1 kg tea of 2nd kind

Rs. 60	Mean price	Rs. 65
	Rs. 62	
	3	2

∴ Required ratio = 3 : 2

**27. (b)** By the rule of alligation, we have:  
 Strength of first jar  
 Strength of 2nd jar

40%	Mean strength	19%
	Rs. 26	
	7	14

∴ So, Ratio of 1st and 2nd quantities = 7 : 14 = 1 : 2  
 ∴ Required quantity replaced =  $\frac{2}{3}$

**28. (d)** Let the C.P. of spirit be Re. 1 per litre.  
 Spirit in 1 litre mix. of A =  $\frac{5}{7}$  litre; C.p. of a litre mix. in A = Re.  $\frac{5}{7}$ .  
 Spirit in 1 litre mix. of B =  $\frac{7}{13}$  litre; C.P. of 1 litre mix. in B = Re.  $\frac{5}{13}$ .  
 Spirit in 1 litre mix. of C =  $\frac{8}{13}$  litre; Mean price = Re.  $\frac{8}{13}$ .  
 By the rule of alligation, we have :  
 C.P. of 1 litre mixture in A    C.P. of 1 litre mixture in B

$\left(\frac{5}{7}\right)$	Mean price	$\left(\frac{7}{13}\right)$
	$\left(\frac{8}{13}\right)$	
	$\left(\frac{1}{13}\right)$	$\frac{9}{91}$

∴ Required ratio =  $\frac{1}{13} : \frac{9}{91} = 7 : 9$ .

**29. (a)** Let cost of 1 litre milk be Re. 1.  
 Milk in 1 litre mix. in B =  $\frac{8}{13}$  litre, C.P. of a litre mix. in B = Re.  $\frac{5}{7}$ .  
 Milk in 1 litre mix. in A =  $\frac{5}{7}$  litre, C.P. of 1 litre mix. in A = Re.  $\frac{5}{7}$ .

Milk in 1 litre of final mix. =  $\left(\frac{900}{13} \times \frac{1}{100} \times 1\right) = \frac{9}{13}$  litre;  
 mean price = Re.  $\frac{9}{13}$ .  
 By the rule of alligation, we have:  
 C.P. of 1 litre mixture in A    C.P. of 1 litre mixture in B

$\frac{8}{13}$	Mean price	$\frac{5}{7}$
	$\frac{3}{13}$	
	$\frac{2}{91}$	$\frac{9}{91}$

∴ Required ratio =  $\frac{2}{91} : \frac{1}{13} = 2 : 7$ .

**30. (c)** Suppose the can initially contains 7x and 5x litres of mixtures A and B respectively.  
 Quantity of A mixture left =  $\left(7x - \frac{7}{12} \times 9\right)$  litres =  $\left(7x - \frac{21}{4}\right)$  litres.  
 Quantity of B in mixture left =  $\left(5x - \frac{5}{12} \times 9\right)$  litres =  $\left(5x - \frac{15}{4}\right)$  litres.  

$$\frac{\left(7x - \frac{21}{4}\right)}{\left(5x - \frac{15}{4}\right) + 9} = \frac{7}{9} \Rightarrow \frac{28x - 21}{20x + 21} = \frac{7}{9}$$

$$\Rightarrow 252x - 189 = 140x + 147$$

$$\Rightarrow 112x = 336 \Rightarrow x = 3.$$
 So, the can contained 21 litre.

**SPEED TEST 16**

**1. (d)**  $2000 = \frac{P \times 4 \times 5}{100}$   
 ∴ P = 10000  
 Now, CI =  $10000 \left[ \left(1 + \frac{4}{100}\right)^2 - 1 \right] = 10000 \times 0.0816 = 816$

**2. (a)** Amount =  $11200 + \frac{11200 \times 8.5 \times 3}{100} = 11200 + 2856 = 14056$

**3. (d)** In question principle and simple interests are not given.

**4. (d)** Principle =  $\frac{8730 \times 100}{6 \times 3} = 48500$   
 Compound Interest =  $48500 \left[ \left(1 + \frac{6}{100}\right)^2 - 1 \right]$   
 =  $48500 \times 0.1236 = ₹ 5994.60$

**5. (c)**  $A = P \left(1 + \frac{r}{100}\right)^n = 4000 \left(1 + \frac{5}{100}\right)^2$   
 =  $4000 \times \frac{21}{20} \times \frac{21}{20} = ₹ 4410$

$$6. \quad (a) \quad R = \frac{SI \times 100}{P \times T} = \frac{10230 \times 100}{27500 \times 3} = 12.4\% \text{ p.a.}$$

$$\begin{aligned} CI &= P \left[ \left( 1 + \frac{r}{100} \right)^t - 1 \right] \\ &= 27500 \left[ \left( 1 + \frac{12.4}{100} \right)^3 - 1 \right] = 27500 \left[ \left( \frac{112.4}{100} \right)^3 - 1 \right] \\ &= 27500 \left[ \frac{112.4 \times 112.4 \times 112.4 - 100 \times 100 \times 100}{100 \times 100 \times 100} \right] \\ &= 27500 \left[ \frac{1420034.624 - 1000000}{1000000} \right] \\ &= 27500 \left[ \frac{420034.624}{1000000} \right] \\ &= 27500 \times 0.42 = ₹11550 \end{aligned}$$

$$7. \quad (e) \quad \text{Rate per annum} = \frac{30240 \times 100}{84000 \times 3} \% = 12\%$$

$$\begin{aligned} \therefore \text{Compound Interest} &= 84000 \left[ \left( 1 + \frac{12}{100} \right)^3 - 1 \right] \\ &= 84000 \left[ \left( 1 + \frac{3}{25} \right)^3 - 1 \right] = 84000 \left[ \left( \frac{28}{25} \right)^3 - 1 \right] \\ &= 84000 \left[ \frac{28 \times 28 \times 28 - 25 \times 25 \times 25}{25 \times 25 \times 25} \right] = 84000 \left[ \frac{21952 - 15625}{15625} \right] \\ &= 84000 \times \frac{6327}{15625} = ₹ 34013.95 \end{aligned}$$

8. (a) Suppose the principle is ₹ x.

$$\begin{aligned} x \left[ \frac{6}{100} + \frac{6.5}{100} + \frac{7.0}{100} + \frac{7.5}{100} \right] &= 3375 \\ \frac{x}{100} \times 27 &= 3375 \quad \therefore x = \frac{3375 \times 100}{27} = ₹ 12500 \end{aligned}$$

$$9. \quad (d) \quad R = \frac{12000 \times 100}{40000 \times 3} \left[ R = \frac{SI \times 100}{P \times T} \right] = 10\%$$

$$\begin{aligned} CI &= P \left[ \left( 1 + \frac{r}{100} \right)^t - 1 \right] = 40000 \left[ \left( 1 + \frac{10}{100} \right)^3 - 1 \right] \\ &= 40000 \left[ \left( \frac{11}{10} \right)^3 - 1 \right] = 40000 \left[ \frac{1331 - 1000}{1000} \right] \\ &= 40000 \left[ \frac{31}{1000} \right] = 40 \times 31 = ₹ 13240 \end{aligned}$$

10. (d) Suppose at the rate of 12% p.a. he borrowed ₹ x.

$$\begin{aligned} 36480 - 30000 &= \frac{x \times 12 \times 2}{100} + \frac{(30000 - x) \times 10 \times 2}{100} \\ 6480 &= \frac{24x}{100} + \frac{600000 - 20x}{100} \\ 6480 \times 100 &= 24x + 600000 - 20x \\ 648000 - 600000 &= 4x \\ 4x &= 648000 - 600000 = 48000 \\ x &= \frac{48000}{4} = ₹ 12000 \end{aligned}$$

$$11. \quad (a) \quad R = \frac{6800 \times 100}{17000 \times 4} = 10\%$$

$$\begin{aligned} C.I. &= 17000 \left[ \left( 1 + \frac{10}{100} \right)^4 - 1 \right] = 17000 \left[ \left( \frac{11}{10} \right)^4 - 1 \right] \\ &= 17000 \left[ \frac{11 \times 11 \times 11 \times 11 - 10 \times 10 \times 10 \times 10}{10 \times 10 \times 10 \times 10} \right] \\ &= 17000 \left[ \frac{14641 - 10000}{10000} \right] \\ &= \frac{17000 \times 4641}{10000} = ₹ 7889.7 \end{aligned}$$

12. (b) Ratio of two parts =  $r_2 t_2 : r_1 t_1 = 54 : 50 = 27 : 25$

$$\therefore \text{Sum lent out at } 10\% = \frac{2600}{52} \times 27 = ₹ 1350$$

13. (a) Let the rate of interest =  $r\%$

$\therefore$  times =  $r$  years

$$\text{Now, } \frac{S}{16} = \frac{S \times r \times r}{100}$$

$$\text{or, } r^2 = \frac{100}{16} \quad \therefore r = \frac{25}{4} = 6\frac{1}{4}\%$$

14. (d) Rate of interest =  $\frac{100(2-1)}{16} = 12\frac{1}{2}\%$

15. (d) It doubles in 10 yrs.  
Then triples in 20 yrs.

16. (d) Quicker Maths :

$$\text{Sum} = \frac{\text{Difference in Interest} \times 100}{\text{Times} \times \text{Difference in rates}}$$

$$\text{or, } 500 = \frac{2.5 \times 100}{2 \times x} \quad \therefore x = \frac{2.5 \times 100}{2 \times 500} = 0.25\%$$

17. (b) Suppose ₹ x was lent at 6% per annum.

$$\text{Thus, } \frac{x \times 6 \times 5}{100} + \frac{(7000 - x) \times 4 \times 5}{100} = 1600$$

$$\frac{3x}{10} + \frac{7000 - x}{5} = 1600$$

$$\text{or, } \frac{3x + 14,000 - 2x}{10} = 1600$$

$$\therefore x = 16000 - 14000 = ₹ 2000$$

18. (b) Suppose the rate of interest =  $r\%$  and the sum = ₹ A

$$\text{Now, } A + \frac{A \times r \times 4}{100} = 600;$$

$$\text{or, } A + \frac{Ar}{25} = 600$$

$$\text{or, } A \left[ 1 + \frac{r}{25} \right] = 600 \quad \dots(1)$$

$$\text{And, } A + \frac{A \times r \times 6}{100} = 650;$$

$$\text{or, } A \left[ 1 + \frac{3r}{50} \right] = 650 \quad \dots(2)$$

Dividing (1) by (2), we have

$$\frac{1 + \frac{r}{25}}{1 + \frac{3r}{50}} = \frac{600}{650}; \quad \text{or, } \frac{(25+r) \times 2}{50+3r} = \frac{12}{13}$$

$$\text{or, } \frac{(25+r) \times 2}{50+3r} = \frac{12}{13}$$

$$\text{or, } (50+2r) \times 13 = (50+3r) \times 12$$

$$\text{or, } 650 + 26r = 600 + 36r; \quad \text{or, } 10r = 50$$

$$\therefore r = 5\%$$



19. (b) After 2 years, amount returned to Ramu

$$= 400 + \frac{400 \times 5 \times 2}{100} = ₹ 440$$

Amount returned to Arun = 2% of ₹ 440 = ₹ 8.80

20. (a) Let the sum be ₹  $x$ .

$$\therefore \text{Interest} = \frac{x \times 8 \times 4}{100} = \frac{32x}{100}$$

$$x - \frac{32x}{100} = \frac{68x}{100}$$

When interest is  $\frac{68x}{100}$  less, the sum is ₹  $x$ .

$$\therefore \text{when interest is } 340 \text{ less, the sum is } \frac{x}{68x} \times 100 \times 340 = ₹ 500$$

$$21. (a) 594.5 = 5800 \left[ \left( 1 + \frac{r}{100} \right)^2 - 1 \right] = \frac{594.5}{5800} = \left( 1 + \frac{r}{100} \right)^2 - 1$$

$$0.1025 + 1 = \left( 1 + \frac{r}{100} \right)^2$$

$$1.1025 = \frac{(100+r)^2}{10000}$$

$$1.1025 \times 10000 = (100+r)^2.$$

$$11025 = (100+r)^2.$$

$$105 = 100 + r$$

$$r = 5\%$$

22. (b) Suppose principle is  $P$

$$\therefore \text{Compound interest} = P \left[ \left( 1 + \frac{r}{100} \right)^t - 1 \right]$$

$$1414.40 = P \left[ \left( 1 + \frac{8}{100} \right)^2 - 1 \right]$$

$$1414.40 = P [1.1664 - 1]$$

$$P = \frac{1414.40}{0.1664} = ₹ 8500$$

$$\text{So } A = P + SI = 8500 + 1414.40 = ₹ 9914.40$$

$$23. (d) \text{Compound interest} = 7400 \left[ \left( 1 + \frac{27}{200} \right)^2 - 1 \right]$$

$$= 7400 \left[ \left( \frac{227}{200} \right)^2 - 1 \right] = 7400 \left[ \frac{227 \times 227 - 200 \times 200}{200 \times 200} \right]$$

$$= 7400 \left[ \frac{51529 - 40000}{40000} \right] = 7400 \times \frac{11529}{40000}$$

$$= 2132.865 = ₹ 2132.87$$

$$24. (c) \text{C.I.} \left[ \left( 1 + \frac{r}{100} \right)^T - 1 \right]$$

$$4676.25 = 14500 \left[ \left( 1 + \frac{r}{100} \right)^2 - 1 \right]$$

$$\Rightarrow \frac{4676.25}{14500} = \left( 1 + \frac{r}{100} \right)^2 - 1$$

$$\Rightarrow \frac{4676.25}{14500} + 1 = \left( 1 + \frac{r}{100} \right)^2$$

$$\Rightarrow \frac{4676.25 \times 14500}{14500} = \left( 1 + \frac{r}{100} \right)^2$$

$$\Rightarrow \sqrt{\frac{19176.25}{14500}} = 1 + \frac{r}{100} \Rightarrow \sqrt{1.3225} = 1 + \frac{r}{100}$$

$$\Rightarrow \sqrt{\frac{13225}{10000}} = 1 + \frac{r}{100}$$

$$\Rightarrow \frac{115}{100} = 1 + \frac{r}{100} \Rightarrow \frac{r}{100} = \frac{115}{100} - 1$$

$$\Rightarrow \frac{r}{100} = \frac{115 - 100}{100} \Rightarrow \frac{r}{100} = \frac{15}{100}$$

$$\Rightarrow r = 15\%$$

$$25. (c) \text{C.I.} = P \left[ \left( 1 + \frac{R}{100} \right)^n - 1 \right] = 8000 \left[ \left( 1 + \frac{15}{100} \right)^3 - 1 \right]$$

$$= 8000 \left[ \left( \frac{115}{100} \right)^3 - 1 \right] = 8000 \left[ \left( \frac{23}{20} \right)^3 - 1 \right]$$

$$= 8000 \left[ \frac{23 \times 23 \times 23 - 20 \times 20 \times 20}{20 \times 20 \times 20} \right]$$

$$= \frac{8000}{8000} (12167 - 8000) = ₹ 4167$$

$$26. (a) \text{CI} = P \left[ \left( 1 + \frac{r}{100} \right)^t - 1 \right]$$

$$= 7850 \left[ \left( 1 + \frac{114}{100} \right)^2 - 1 \right] = 7850 \left[ \left( \frac{1.14}{100} \right)^2 - 1 \right]$$

$$= 7850 [(1.14)^2 - 1] = 7850 [1.2996 - 1]$$

$$= 7850 [0.2996] = ₹ 2351.86$$

27. (c) Compound interest accrued half-yearly.

$R = 20\%$  yearly =  $10\%$  half-yearly

$n = 2$  years =  $4$  half-yearly

$$\text{CI} = P \left[ \left( 1 + \frac{r}{100} \right)^n - 1 \right]$$

$$= 10000 \left[ \left( 1 + \frac{10}{100} \right)^4 - 1 \right] = 10000 \left[ \left( \frac{11}{10} \right)^4 - 1 \right]$$

$$= 10000 \left[ \frac{11 \times 11 \times 11 \times 11 - 10 \times 10 \times 10 \times 10}{10 \times 10 \times 10 \times 10} \right]$$

$$= 10000 \left[ \frac{14641 - 10000}{10000} \right] = 10000 \left[ \frac{4641}{10000} \right] = ₹ 4641$$

$$28. (e) \text{Required difference} = P \left( \frac{R}{100} \right)^2 = 985 \left( \frac{14}{100} \right)^2$$

$$= 985 \times \frac{196}{10000} = 19.306$$

29. (a) Let the sum be ₹  $x$ .

$$\text{Then, } \frac{x \times 4 \times 4}{100} - 57 = x \left\{ \left( 1 + \frac{5}{100} \right)^3 - 1 \right\}$$

$$\text{or, } \frac{4x}{25} - 57 = x \left( \frac{1261}{8000} \right)$$

$$\text{or, } x \left[ \frac{4}{25} - \frac{1261}{8000} \right] = 57$$

$$\text{or, } x \left[ \frac{1280 - 1261}{8000} \right] = 57$$

$$\therefore x = \frac{57 \times 8000}{19} = ₹ 24000$$

30. (d) Difference in amounts =  $2977.54 - 2809 = ₹ 168.54$

Now, we see that ₹ 168.54 is the interest on ₹ 2809 in one year (it is either simple or compound interest because both are the same for a year).

$$\text{Hence, rate of interest} = \frac{168.54 \times 100}{2809} = 6\%$$

**SPEED TEST 17**

Now, for the original sum,

$$2809 = x \left(1 + \frac{6}{100}\right)^2$$

$$\text{or, } 2809 = x \left(\frac{53}{50}\right)^2$$

$$\therefore x = \frac{2809 \times 50 \times 50}{53 \times 53} = ₹ 2500$$

31. (c) Difference in interest =  $236.25 - 225 = ₹ 11.25$   
 This difference is the simple interest over ₹ 225 for one year.

$$\text{Hence, rate of interest} = \frac{11.25 \times 100}{225 \times 1} = 5\%$$

Now, since any particular number of years is not mentioned, we cannot find the sum.

32. (a)  $10000 = x \left(1 + \frac{25}{100}\right)^3$   
 $\therefore \frac{10000 \times 4 \times 4 \times 4}{5 \times 5 \times 5} = ₹ 5120$

33. (b)  $6632.55 = 6250 \left(1 + \frac{2}{100}\right)^t$   
 or,  $\frac{6632.55}{625000} = \left(\frac{51}{50}\right)^t$   
 or,  $\frac{663255}{625000} = \left(\frac{51}{50}\right)^t$   
 or,  $\frac{132651}{125000} = \left(\frac{51}{50}\right)^t = \left(\frac{51}{50}\right)^t \quad \therefore t = 3$

Hence, the time is  $\frac{t}{2} = \frac{3}{2}$

34. (a) The general formula for such question is :

$$A = P \left(1 + \frac{r_1}{100}\right) \left(1 + \frac{r_2}{100}\right) \left(1 + \frac{r_3}{100}\right) \dots$$

where A = Amount, P = Principal and  $r_1, r_2, r_3$  are the rates of interest for different years.

$$2249.52 = P \left(1 + \frac{3}{100}\right) \left(1 + \frac{4}{100}\right) \left(1 + \frac{5}{100}\right)$$

$$\text{or, } 2249.52 = P(1.03)(1.04)(1.05)$$

$$\therefore P = \frac{2249.52}{1.03 \times 1.04 \times 1.05} = ₹ 2000$$

35. (a) Whenever the relationship between CI and SI is asked for 3 years of time, we use the formula:

$$SI = \frac{rt}{100 \left[ \left(1 + \frac{r}{100}\right)^r - 1 \right]} \times CI$$

$$150 = \frac{5 \times 3}{100 \left[ \left(1 + \frac{r}{100}\right)^3 - 1 \right]} \times CI$$

$$CI = \frac{150 \times 100 \left[ \frac{9261 - 8000}{8000} \right]}{5 \times 3}$$

$$= \frac{150 \times 100 \times 1261}{5 \times 3 \times 8000} = \frac{1261}{8} = ₹ 157.62$$

1. (c) Let the age of father and son be  $15x$  years and  $x$  years respectively.

$$\text{Now, according to the question, } \frac{15x + x}{2} = 16$$

$$\text{or, } x = \frac{16 \times 2}{16} = 2 \text{ years}$$

Hence age of the son = 2 years

2. (b) Average age = 28.5  
 $\therefore$  Total age =  $28.5 \times 2 = 57$

$$\therefore \text{Daughter's age} = \frac{5}{19} \times 57 = 15 \text{ years}$$

3. (a) Let Sudha's and Neeta's present ages be  $6x$  and  $7x$  years respectively.

According to the question.

$$\frac{6x - 5}{7x - 5} = \frac{5}{6}$$

$$\Rightarrow 36x - 30 = 35x - 25$$

$$\Rightarrow x = 5$$

$$\therefore \text{Sudha's present age} = 6 \times 5 = 30 \text{ years}$$

4. (a) Required average age =  $\left(\frac{15 \times 36 + 12 \times 16}{36 + 12}\right)$  years

$$= \left(\frac{540 + 192}{48}\right) \text{ years} = \left(\frac{732}{48}\right) \text{ years} = 15.25 \text{ years.}$$

5. (a) Let the ages of Swati and Khyati two years ago be  $5x$  and  $7x$  years respectively.

According to the question,

$$\frac{5x + 4}{7x + 4} = \frac{7}{9}$$

$$\Rightarrow 49x + 28 = 45x + 36$$

$$\Rightarrow 4x = 8 \Rightarrow x = 2$$

$$\therefore \text{Khyati's present age} = 7x + 2 = 7 \times 2 + 2 = 16 \text{ years}$$

6. (b) **Shortcut method :**

$$\text{Son's age} = \frac{5(9-1)}{(9-4)} = 8 \text{ yrs}$$

$$\therefore \text{Father's age} = 4 \times 8 = 32 \text{ yrs}$$

7. (b) **Shortcut method :**

$$\text{Son's age} = \frac{5(7-1) + 5(3-1)}{7-3} = 10 \text{ yrs}$$

From the first relationship of ages, if F is the age of the father then  $F + 5 = 3(10 + 5)$

$$\therefore F = 40 \text{ yrs}$$

8. (c) **Shortcut method :**

$$\text{Daughter's age} = \frac{10(4-1) + 10(2-1)}{4-2} = 20 \text{ yrs}$$

9. (e) 10 yrs ago, A was  $\frac{1}{2}$  of B's age.

AT present, A is  $\frac{3}{4}$  of B's age.

$$10 \left(\frac{1}{2} - 1\right)$$

$$\therefore \text{B's age} = \frac{10 \left(\frac{1}{2} - 1\right)}{\frac{1}{2} - \frac{3}{4}} = 20 \text{ yrs}$$

$$\text{A's age} = \frac{3}{4} \text{ of } 20 = 15 \text{ yrs}$$

10. (b) Let the age of the daughter be  $x$  yrs.

Then, the age of the mother is  $(50 - x)$  yrs.

$$5 \text{ yrs ago, } 7(x - 5) = 50 - x - 5$$

$$\text{or, } 8x = 50 - 5 + 35 = 80$$

$$\therefore x = 10$$

Therefore, daughter's age = 10 yrs  
 and mother's age = 40 yrs

11. (c) Let the ratio of proportionality be  $x$ , then  
 $4x \times x = 196$  or,  $4x^2 = 196$  or,  $x = 7$   
 Thus, Father's age = 28 yrs, Son's age = 7 yrs  
 After 5 yrs, Father's age = 33 yrs.  
 Son's age = 12 yrs  
 $\therefore$  Ratio = 33 : 12 = 11 : 4
12. (b) Difference in ratios = 8  
 Then  $8 \equiv 24 \therefore 1 \equiv 3$   
 i.e., value of 1 in ratio is equivalent to 3 yrs  
 Thus, Rita's age =  $3 \times 3 = 9$  yrs  
 Mother's age =  $11 \times 3 = 33$  yrs.  
 After 3 years, the ratio = 12 : 36 = 1 : 3
13. (c) Let the present age be  $x$  yrs. Then  
 125% of  $(x - 10) = x$ ; and  $83\frac{1}{3}\%$  of  $(x + 10) = x$   
 $\therefore$  125% of  $(x - 10) = 83\frac{1}{3}\%$  of  $(x + 10)$   
 $\frac{5}{4}(x - 10) = \frac{5}{6}(x + 10)$   
 or,  $\frac{5}{4}x - \frac{5}{4} \times 10 = \frac{5}{6}x + \frac{5}{6} \times 10$   
 or,  $\frac{5x}{12} = \frac{250}{12} \therefore x = 50$  yrs.
14. (b) Let the father's present age be  $x$  and son's age be  $x_1$  and  $x_2$ .  
 Now,  $x = 3(x_1 + x_2)$  .....(i)  
 Also,  $x + 5 = 2(x_1 + 5 + x_2 + 5)$   
 $x + 5 = 2(x_1 + x_2 + 10)$  .....(ii)  
 Putting value of  $(x_1 + x_2) = \frac{x}{3}$  from (i) in equation (ii)  
 $x + 5 = 2\left(\frac{x}{3} + 10\right) = 45$
15. (a) Let the present ages of P and Q be  $3x$  and  $4x$  respectively.  
 After 4 years  
 $4x - 3x = 5$   
 $\therefore x = 5$   
 $\therefore$  P's present age =  $3x = 3 \times 5 = 15$  years
16. (c) Let the present ages of Rama and Shyama be  $4x$  and  $5x$  years respectively,  
 $\frac{4x + 5}{5x + 5} = \frac{5}{6}$   
 $\Rightarrow 25x + 25 = 24x + 30$   
 $\Rightarrow x = 30 - 25 = 5$   
 $\therefore$  Rama's present age =  $4 \times 5 = 20$  years
17. (d) Let the mother's age be  $y$  years.  
 $\therefore$  The age of father =  $(y + 9)$  years  
 The age of son =  $\frac{y}{2}$  years  
 The age of daughter =  $\left(\frac{y}{2} - 7\right)$  years  
 Now according to the given condition,  
 $(y + 9) = 3\left(\frac{y}{2} - 7\right)$   
 $\Rightarrow y + 9 = \frac{3y - 42}{2}$   
 $\Rightarrow 2y + 18 = 3y - 42$   
 $\Rightarrow y = 60$  years
18. (d) Suppose age of Ram = R  
 his son's age = S  
 and his father's age = F  
 According to question,  $S = \frac{R}{3}$  and  $R = F \times \frac{2}{5}$   
 $\therefore F = \frac{5R}{2}$  and  $\frac{R + S + F}{3} = 46$   
 $R + S + F = 46 \times 3$
- $R + \frac{R}{3} + \frac{5R}{2} = 138$   
 $R = 36$   
 $S = \frac{36}{3} = 12$   
 $F = \frac{5 \times 36}{2} = 90$
19. (c) Let the ages of Abhay and his father 10 years ago be  $x$  and  $5x$  years respectively. Then,  
 Abhay's age after 6 years =  $(x + 10) + 6 = (x + 16)$  years.  
 Father's age after 6 years =  $(5x + 10) + 6 = (5x + 16)$  years.  
 $\therefore (x + 16) = \frac{3}{7}(5x + 16) \Leftrightarrow 7(x + 16) = 3(5x + 16)$   
 $\Leftrightarrow 7x + 112 = 15x + 48$   
 $\Leftrightarrow 8x = 64 \Leftrightarrow x = 8$ .  
 Hence, Abhay's father's present age =  $(5x + 10) = 50$  years.  
 Let their present ages be  $4x$ ,  $7x$  and  $9x$  years respectively.  
 Then,  $(4x - 8) + (7x - 8) + (9x - 8) = 56 \Leftrightarrow 20x = 80 \Leftrightarrow x = 4$ .  
 $\therefore$  Their present ages are 16 yrs, 28 yrs. and 36 yrs. respectively.
21. (d) 16 years ago, let T =  $x$  years and G =  $8x$  years  
 After 8 years from now, T =  $(x + 16 + 8)$  years and  
 G =  $(8x + 16 + 8)$  years.  
 $\therefore 8x + 24 = 3(x + 24) \Leftrightarrow 5x = 48$ .
- 8 years ago,  $\frac{T}{G} = \frac{x + 8}{8x + 8} = \frac{\frac{48}{5} + 8}{8 \times \frac{48}{5} + 8} = \frac{88}{424} = \frac{11}{53}$
22. (d)  $R - Q = R - T \Rightarrow Q = T$ . Also,  $R + T = 50$   
 $\Rightarrow R + Q = 50$   
 So,  $(R - Q)$  cannot be determined.
23. (e) Let the ages of father and son be  $x$  and  $(45 - x)$  years respectively.  
 Then,  $(x - 5)(45 - x - 5) = 34$   
 $\Leftrightarrow (x - 5)(40 - x) = 34 \Leftrightarrow x^2 - 45x + 234 = 0$   
 $\Leftrightarrow (x - 39)(x - 6) = 0 \Leftrightarrow x = 39$  or  $x = 6$ .  
 $\therefore$  Father's age = 39 years and son's age = 6 years
24. (a) Let the ages of children be  $x$ ,  $(x + 3)$ ,  $(x + 6)$  and  $(x + 12)$  years.  
 Then,  $x + (x + 3) + (x + 6) + (x + 9) + (x + 12) = 50$   
 $\Leftrightarrow 5x = 20 \Leftrightarrow x = 4$ .  
 $\therefore$  Age of the youngest child =  $x = 4$  years.
25. (b) Anup's age =  $(5 - 2)$  years = 3 years. Let Gagan's age be  $x$  years.  
 Then,  $\frac{x - 6}{18} = 3 \Leftrightarrow x - 6 = 54 \Leftrightarrow x = 60$ .
26. (c) Let the school ages of Neelam and Shaan be  $5x$  and  $6x$  respectively. Then,  
 $\frac{\frac{1}{3} \times 5x}{\frac{1}{2} \times 6x} = \frac{5}{9} \Leftrightarrow \left(\frac{1}{3} \times 9 \times 5x\right) = \left(\frac{5}{2} \times 6x\right) \Leftrightarrow 15 = 15$ .  
 Thus, Shaan's age cannot be determined.
27. (d) Let C's age be  $x$  years. Then, B's age =  $2x$  years. A's age =  $(2x + 2)$  years.  
 $\therefore (2x + 2) = 2x + x = 27 \Leftrightarrow 5x = 25 \Leftrightarrow x = 5$ .  
 Hence, B's age =  $2x = 10$  years.
28. (d) Let the present ages of the father and son be  $2x$  and  $x$  years respectively.  
 Then,  $(2x - 18) = 3(x - 18) \Leftrightarrow x = 36$ .  
 $\therefore$  Required sum =  $(2x + x) = 3x = 108$  years.
29. (d) Let the ages of Preeti and Sonal 1 year ago be  $4x$  and  $x$  years respectively.  
 Then,  $[(4x + 1) + 6] - [(x + 1) + 6] = 9 \Leftrightarrow 3x = 9 \Leftrightarrow x = 3$ .  
 $\therefore$  Required ratio =  $(4x + 1) : (x + 1) = 13 : 4$ .

30. (a) Let the present age of the father be 'x' and that of the son be 'y'. Then  $\frac{x}{y} = \frac{8}{3}$   
 $\therefore 3x = 8y$  ... (i)  
 Further,  $\frac{x+12}{y+12} = \frac{2}{1} \therefore x+12 = 2y+24$   
 $\therefore x - 2y = 12$  ... (ii)  
 From eqn (i) and (ii),  $x = 48, y = 18$   
 $\therefore$  sum = 66 yrs.

**SPEED TEST 18**

1. (c) Let  $m = \log_5 \sqrt[3]{5}$ , then  $5^m = \sqrt[3]{5} = (5)^{\frac{1}{3}}$   
 So,  $m = \frac{1}{3}$ . Thus,  $\log_5 \sqrt[3]{5} = \frac{1}{3}$ .
2. (d)  $\log_8 x + \log_8 \frac{1}{6} = \frac{1}{3}$   
 or  $\log_8 \left(x \times \frac{1}{6}\right) = \frac{1}{3}$  or  $\log_8 \left(\frac{x}{6}\right) = \frac{1}{3}$   
 or  $\frac{x}{6} = (8)^{1/3} \quad \{\because \log_a b = x \Leftrightarrow (a)x = b\}$   
 or  $\frac{x}{6} = (2^3)^{1/3}$  or  $x = 12$
3. (b)  $\frac{1}{2} \log_{10} 25 - 2 \log_{10} 3 + \log_{10} 18$   
 $= \log_{10} (25)^{1/2} - \log_{10} (3)^2 + \log_{10} 18$   
 $= \log_{10} 5 - \log_{10} 9 + \log_{10} (9 \times 2)$   
 $= \log_{10} 5 - \log_{10} 9 + \log_{10} 9 + \log_{10} 2$   
 $= \log_{10} 5 + \log_{10} 2 = \log_{10} (5 \times 2)$   
 $= \log_{10} 10 = 1$
4. (d) Using,  $\log_{a^k} m = \frac{1}{k} \log_a m$   
 $\frac{\log_8 17}{\log_9 23} = \frac{\log_{(2\sqrt{2})^2} 17}{\log_{3^2} 23} = \frac{\frac{1}{2} \log_{2\sqrt{2}} 17}{\frac{1}{2} \log_3 23} = \frac{\log_{2\sqrt{2}} 17}{\log_3 23}$   
 Hence,  $\frac{\log_8 17}{\log_9 23} - \frac{\log_{2\sqrt{2}} 17}{\log_3 23} = \frac{\log_{2\sqrt{2}} 17}{\log_3 23} - \frac{\log_{2\sqrt{2}} 17}{\log_3 23} = 0$
5. (d) Given expression =  $\frac{1}{\log_{xyz} x} + \frac{1}{\log_{xyz} y} + \frac{1}{\log_{xyz} z}$   
 $= \frac{\log_{xy} xy + \log_{yz} yz + \log_{zx} zx}{\log_{xyz} xyz} = \frac{\log x^2 y^2 z^2}{\log xyz}$   
 $= \frac{2 \log xyz}{\log xyz} = 2$
6. (b)  $abc = \frac{\log 12}{\log 24} \cdot \frac{\log 24}{\log 36} \cdot \frac{\log 36}{\log 48} = \frac{\log 12}{\log 48}$   
 $\therefore 1 + abc = \frac{\log 48 + \log 12}{\log 48} = \frac{\log(48 \cdot 12)}{\log 48}$   
 $= \frac{\log 24^2}{\log 48} = 2 \cdot \frac{\log 24}{\log 48} = 2bc$
7. (c) Let  $x = 2^{56}$   
 $\Rightarrow \log x = 56 \log 2 = 56 \times 0.30103 = 16.85$   
 $\therefore$  Number of digits in  $2^{56} = 17$
8. (c)  $A = \log_2 \log_2 \log_4 (4)^4 + 2 \log_{\sqrt{2}} (\sqrt{2})^2$   
 $= \log_2 \log_2 4 + 2 \times 2 \quad \because \log_a a = 1$   
 $= \log_2 \log_2 (2)^2 + 4 = \log_2 2 + 4 = 1 + 4 = 5$

9. (b) Let  $\log_{10} x - \log_{10} \sqrt{x} = 2 \log_x 10$   
 $\Rightarrow \frac{1}{2} \log_{10} x = 2 \log_x 10 \Rightarrow \log_{10} x = \log_x 10^4$   
 $\Rightarrow \frac{\log_{10} x}{\log_x 10} = 4 \Rightarrow (\log_{10} x)^2 = 4$   
 $\Rightarrow \log_{10} x = \pm 2 \Rightarrow x = 10^2$  or  $10^{-2}$
10. (c)  $\log_6 216\sqrt{6} = \log_6 (6)^3 (6)^{1/2}$   
 $= \log_6 (6)^{7/2} = \frac{7}{2} \log_6 6 = \frac{7}{2} \quad (\because \log_a a = 1)$
11. (b)  $\log_7 \log_5 (\sqrt{x} + 5 + \sqrt{x}) = 0$   
 use  $\log_a x = b \Rightarrow a^b = x$   
 $\therefore \log_5 (\sqrt{x} + 5 + \sqrt{x}) = 7^0 = 1$   
 $\sqrt{x} + 5 + \sqrt{x} = 5^1 = 5 \Rightarrow 2\sqrt{x} = 0 \therefore x = 0$
11. (c)  $\log_a b = \frac{1}{2}, \log_b c = \frac{1}{3}$  and  $\log_c a = \frac{k}{5}$   
 $\Rightarrow \frac{\log b}{\log a} = \frac{1}{2}, \frac{\log c}{\log b} = \frac{1}{3}, \frac{\log a}{\log c} = \frac{k}{5}$   
 $\Rightarrow \frac{1}{2} \times \frac{1}{3} \times \frac{k}{5} = 1 \Rightarrow k = 30$
12. (c)  $\log_a (ab) = x$   
 $\Rightarrow \frac{\log ab}{\log a} = x \Rightarrow \frac{\log b}{\log a} = x - 1 \Rightarrow \frac{\log a}{\log b} = \frac{1}{x - 1}$   
 Now,  $\log_b (ab) = \frac{\log ab}{\log b} = \frac{\log a + \log b}{\log b}$   
 $= \frac{\log a}{\log b} + 1 = \frac{1}{x - 1} + 1 = \frac{1 + x - 1}{x - 1} = \frac{x}{x - 1}$
13. (d)  $\log_8 x + \log_8 \frac{1}{6} = \frac{1}{3}$   
 $\Rightarrow \log_8 \left(x \times \frac{1}{6}\right) = \frac{1}{3} \Rightarrow \log_8 \left(\frac{x}{6}\right) = \frac{1}{3}$   
 $\Rightarrow (8)^{1/3} = \frac{x}{6} \quad [\because \text{if } \log_a y = x, \text{ then } (a)^x = y]$   
 $\Rightarrow (2^3)^{1/3} = \frac{x}{6} \Rightarrow x = 12$
14. (d)  $[\log_{10} (5 \log_{10} 100)]^2 = [\log_{10} (5 \log_{10} 10^2)]^2$   
 $= [\log_{10} (10 \log_{10} 10)]^2$   
 $= [\log_{10} 10]^2 \quad [\because \log_{10} 10 = 1] = 1^2 = 1$
15. (c)  $\frac{1}{3} \log_{10} 125 - 2 \log_{10} 4 + \log_{10} 32 + \log_{10} 1$   
 $= \frac{1}{3} \log_{10} (5)^3 - 2 \log_{10} (2)^2 + \log_{10} (2)^5 + 0$   
 $= \log_{10} 5 - 4 \log_{10} 2 + 5 \log_{10} 2$   
 $= \log_{10} 5 + \log_{10} 2 = \log_{10} 10 = 1$
16. (b)  $\frac{\log_{13} (10)}{\log_{169} (10)} = \frac{\log_{13} (10)}{\log_{13^2} (10)} \quad (\because \log_{a^b} c = \frac{1}{b} \log_a c)$   
 $= \frac{\log_{13} 10}{2} = \frac{1}{2} \log_{13} 10 = \frac{1}{2}$

17. (a)  $2 \log\left(\frac{5}{8}\right) + \log\left(\frac{128}{125}\right) + \log\left(\frac{5}{2}\right)$   
 $= 2 \log 5 - 2 \log 8 + \log 128 - \log 125 + \log 5 - \log 2$   
 $= 2 \log 5 - 2 \log 2^3 + \log 2^7 - \log 5^3 + \log 5 - \log 2$   
 $= (2 \log 5 - 6 \log 2) + (7 \log 2 - 3 \log 5) + \log 5 - \log 2$   
 $= 3 \log 5 - 3 \log 5 - 7 \log 2 + 7 \log 2 = 0$

18. (b)  $\log_{100} 0.1 = \log_{10^2} \left(\frac{1}{10}\right) = \frac{1}{2} \log_{10} \left(\frac{1}{10}\right)$   
 $= \frac{1}{2} \log_{10} (10)^{-1} = -\frac{1}{2} \log_{10} 10 = -\frac{1}{2}$

19. (b)  $\left(\log_{\frac{1}{2}} 2\right) \left(\log_{\frac{1}{3}} 3\right) \left(\log_{\frac{1}{4}} 4\right) \dots \left(\log_{\frac{1}{1000}} 1000\right)$   
 $= \left(\frac{\log 2}{\log \frac{1}{2}}\right) \left(\frac{\log 3}{\log \frac{1}{3}}\right) \left(\frac{\log 4}{\log \frac{1}{4}}\right) \dots \left(\frac{\log 1000}{\log \frac{1}{1000}}\right) \left(\because \log_b a = \frac{\log a}{\log b}\right)$   
 $= \left(\frac{\log 2}{-\log 2}\right) \left(\frac{\log 3}{-\log 3}\right) \left(\frac{\log 4}{-\log 4}\right) \dots \left(\frac{\log 1000}{-\log 1000}\right)$   
 $= (-1) \times (-1) \times (-1) \times \dots \times (-1)$   
 $(\because \text{number of terms is odd}) = -1$

**SPEED TEST 19**

1. (e)  $x + y = 23$  and  $xy = 126$  (Given)  
 Now  $x^2 + y^2 = (x + y)^2 - 2xy$   
 $= (23)^2 - 2 \times 126 = 529 - 252$   
 $\Rightarrow x^2 + y^2 = 277$
2. (e)  $7x - 5y = 20$  ... (i)  
 $12x + 5y = 75$  ... (ii)  
 Adding both the equations,  
 $19x = 95$  or,  $x = \frac{95}{19} = 5$   
 From equation (i),  
 $7 \times 5 - 5y = 20$  or,  $5y = 35 - 20$   
 or,  $y = \frac{15}{5} = 3 \therefore xy = 5 \times 3 = 15$
3. (d) Let the length and breadth of the rectangle be  $3x$  and  $2x$  respectively.  
 $\therefore 2(3x + 2x) = 40 \Rightarrow 10x = 40$   
 $\Rightarrow x = \frac{40}{10} = 4 \therefore \text{Area of rectangle} = 3x \times 2x$   
 $= 6x^2 = (6 \times 4^2) \text{ cm}^2 = 96 \text{ cm}^2$
4. (d)  $2x + 3y = 87$   
 $3x - 3y = 48$   


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 $5x = 135$   
 $\therefore x = \frac{135}{5} = 27$
5. (c) Sukhvinder's monthly income =  $\frac{2.34}{12}$   
 Jassi's monthly income =  $\frac{3}{2} \times \frac{2.34}{12} = \frac{1}{8} \times 2.34$  lakh  
 Ganesh's monthly income =  $2 \times \frac{1}{8} \times 2.34 = \text{Rs. } 58500$
6. (e) Number of sweets given to all students =  $30 \times \frac{30 \times 20}{100} = 180$   
 Number of sweets given to two teachers =  $2 \times \frac{30 \times 30}{100} = 18$   
 $\therefore \text{Required number of sweets} = 180 + 18 = 198$

7. (d)  $A = x^2 - y^2 = (x + y)(x - y) = 10(x - y)$   
 $B = 20$   
 Now, it is not possible to compare  $A$  and  $B$ , as the value of  $x$  and  $y$  is not known.

8. (b)  $2x + y = x + 2y$   
 $x = y$   
 Now,  $\frac{x^2}{y^2} = \frac{x^2}{x^2} = 1$

9. (c) No of women =  $\frac{1}{3}(108) = 36$   
 $\therefore$  No of unmarried women = No of women - No of married women =  $36 - 9 = 27$

10. (b) Let the total no of boys be  $n$ .  
 Now, No of boys above 160 cm height = 18  
 $\frac{3}{4}n = 18$   
 $n = 24$   
 Also, let total no of students be  $N$ .  
 Then,  $n = \frac{2}{3}N = 36$   
 $n = \frac{3}{2}(24) = 36$   
 $\therefore$  Number of girls =  $N - n = 36 - 24 = 12$

11. (a)  $T + R = ₹ 525$  ... (1)  
 $\frac{3}{2}T + 2R = 850$  ... (2)

Performing (1)  $\times$  (2), we get  $T = 400$   
 $\therefore R = 525 - 400 = ₹ 125$

12. (c)  $H + G = 81$  ... (1)  
 $2H + 4G = 234$   
 or  $H + 2G = 117$  ... (2)  
 $(2) - (1) \Rightarrow G = 36$

13. (a)  $x - y = 3$  ... (i)  
 $x^2 - y^2 = 63$   
 $\Rightarrow (x + y)(x - y) = 63$   
 $\Rightarrow (x + y) \times 3 = 63 \Rightarrow (x + y) = \frac{63}{3} = 21$   
 Hence,  $x + y = 21$  ... (ii)

Solving (i) and (ii), we get  
 $x = 12$  and  $y = 9$   
 $\therefore$  larger no. = 12

14. (c)  $10x + y - 10y - x = 9$   
 $\Rightarrow 9(x - y) = 9 \Rightarrow x - y = 1$

15. (e) Let the number of parrots be  $p$  and the number of tigers be  $t$ .  
 Then  
 $p + t = 858$  ... (i)  
 $2p + 4t = 1846$  ... (ii)  
 After rearranging equation (ii), we get  
 $p + 2t = 923$  ... (iii)  
 Solving (i) & (ii), we get  
 $t = 65$  &  $p = 793$

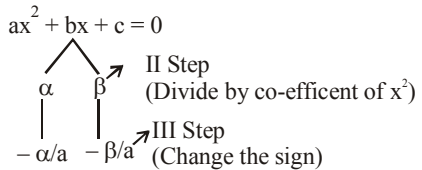
16. (e) Train fare from Agra to Aligarh for one person  
 $= \frac{3}{4} \times 2 \times 420 = 630$   
 Then required sum =  $3 \times 420 + 4 \times 630$   
 $= 1260 + 2520 = ₹ 3780$

17. (b) Let Rs.  $x$  be the fare of city B from city A and Rs.  $y$  be the fare of city C from city A.  
 Then,  $2x + 3y = 77$  ... (i) and  
 $3x + 2y = 73$  ... (ii)  
 Multiplying (i) by 3 and (ii) by 2 and subtracting, we get:  $5y = 85$  or  $y = 17$ .  
 Putting  $y = 17$  in (i), we get:  $x = 13$ .

18. (a) Clearly, the required number would be such that it leaves a remainder of 1 when divided by 2, 3 or 4 and no remainder when divided by 5. Such a number is 25.

19. (c) Clearly, the black cards are either clubs or spades while the red cards are either diamonds or hearts.  
 Let the number of spades be  $x$ . Then, number of clubs =  $(7 - x)$ .  
 Number of diamonds =  $2 \times$  number of spades =  $2x$ ;  
 Number of hearts =  $2 \times$  number of diamonds =  $4x$ .  
 Total number of cards =  $x + 2x + 4x + 7 - x - 6x + 7$ .  
**Therefore  $6x + 7 = 13 \Leftrightarrow 6x = 6 \Leftrightarrow x = 1$ .**  
 Hence, number of clubs =  $(7 - x) = 6$ .
20. (c) Let there be  $(x + 1)$  members. Then,  
 Father's share =  $\frac{1}{4}$ , share of each other member =  $\frac{3}{4x}$ .  
 $\therefore 3\left(\frac{3}{4x}\right) = \frac{1}{4} \Leftrightarrow 4x = 36 \Leftrightarrow x = 9$   
 Hence, total number of family member = 10.

**SPEED TEST 20**



1. (c)  $x = -3, -4$   
 $y = -4, -5$   
 $\therefore x \geq y$

2-6 : **Note:** Let the quadratic equation be  $ax^2 + b + c = 0$ .  
 To find roots of this equation quickly, we find two factors of 'b' such that their sum is equal to b and their product is equal to the product of the coefficient of  $x^2$  and the constant term 'c'.  
 Let two such factors be  $\alpha$  and  $\beta$ .  
 The  $\alpha + \beta = b$  and  $\alpha \beta = ca$   
 In the second step, we divide these factors by the coefficient of  $x^2$ , ie be 'a'.  
 In the next step, we change the signs of the outcome. These are the roots of the equation.

2. (c)  $x^2 + 13x + 42 = 0$        $y^2 + 19y + 90 = 0$
- 
3. (a)  $x^2 + 15x + 56 = 0$        $y^2 - 23y + 132 = 0$
- 
4. (e)  $x^2 + 7x + 12 = 0$        $y^2 + 6y + 8 = 0$
- 
5. (b)  $x^2 - 22x + 120 = 0$        $y^2 - 26y + 168 = 0$
- 
6. (d)  $x^2 + 12x + 32 = 0$        $y^2 + 17y + 72 = 0$
- 

7. (d) I.  $x^2 - x - 12 = 0$       II.  $y^2 + 5y + 6 = 0$
- 
- $x = 4, -3$        $y = -2, -3$

**Step I:** Split the middle term in such a way that its sum equals to the coefficient of the middle term and its product equals to the product of the constant term and the coefficient of highest power.

**Step II:** Divide each split term by co-efficient of highest power and change the sign. These are the roots of the given quadratic equation.

8. (a) I.  $x^2 - 8x + 15 = 0$       II.  $y^2 - 3y + 2 = 0$
- 
- $x = 5, 3$        $y = 2, 1$
9. (c)  $x^2 = 144; x = \pm 12$   
 $y = \sqrt{169} = 13$
10. (b)  $x = \sqrt{121} = 11, y^2 = 121, y = \pm 11$
11. (e)  $x^2 = 15, x = \pm 4$   
 $y^2 + 9y + 20 = 0$
- 
- $y = 5, 4$
12. (e) I.  $\frac{3}{\sqrt{x}} + \frac{4}{\sqrt{x}} = \sqrt{x} \Rightarrow \frac{7}{\sqrt{x}} = \sqrt{x}$   
 $\Rightarrow 7 = \sqrt{x^2} = x \therefore x = 7$   
 II.  $y^2 - \frac{(7)^{5/2}}{\sqrt{y}} = 0 \Rightarrow y^2 = \frac{(7)^{5/2}}{\sqrt{y}}$   
 $\Rightarrow y^2 \times \sqrt{y} = (7)^{5/2} \Rightarrow (y)^{5/2} = (7)^{5/2} \Rightarrow y = 7$
13. (c)  $x^2 + 11x + 30 = 0$        $y^2 + 7y + 12 = 0$
- 
- Ist -6 -5      Ist -4 -3  
 IInd 6 5      IInd 4 3
14. (b) I.  $16x^2 + 20x + 6 = 0$   
 $\Rightarrow 8x^2 + 10x + 3 = 0 \Rightarrow (4x + 3) + (2x + 1) = 0$   
 $\therefore x = -\frac{3}{4}$  or  $-\frac{1}{2}$   
 II.  $10y^2 + 38y + 24 = 0 \Rightarrow 5y^2 + 19y + 12 = 0$   
 $\therefore (y + 3)(5y + 4) = 0$   
 $\therefore y = -3$  or  $-\frac{4}{5}$  Hence,  $x > y$
15. (d) I.  $18x^2 + 18x + 4 = 0 \Rightarrow 9x^2 + 9x + 2 = 0$   
 $\Rightarrow (3x + 2)(3x + 1) = 0$   
 $\therefore x = -\frac{2}{3}$  or  $-\frac{1}{3}$

- II.  $12y^2 + 29y + 14 = 0$   
 $\Rightarrow (3y + 2)(4y + 7) = 0$   
 $\therefore y = -\frac{2}{3}$  or  $-\frac{7}{4}$  Hence,  $x \geq y$
16. (c) I.  $8x^2 + 6x - 5 = 0$   
 $\Rightarrow (4x + 5)(2x - 1) = 0 \therefore x = -\frac{5}{4}$  or  $\frac{1}{2}$
- II.  $12y^2 - 22y + 8 = 0 \Rightarrow 6y^2 - 11y + 4 = 0$   
 $\Rightarrow (2y - 1)(3y - 4) = 0 \therefore y = \frac{1}{2}$  or  $\frac{4}{3}$   
Hence,  $x \leq y$
17. (a) I.  $17x^2 + 48x - 9 = 0$   
 $\Rightarrow (x + 3)(17x - 3) = 0 \Rightarrow x = -3$  or  $\frac{3}{17}$
- II.  $13y^2 - 32y + 12 = 0 \Rightarrow (y - 2)(13y - 6) = 0$   
 $\therefore y = 2$  or  $\frac{6}{13}$  Hence,  $x < y$
18. (a) I.  $\sqrt{25x^2} - 125 = 0 \Rightarrow \sqrt{25x^2} = 125$   
 $\Rightarrow 5x = 125 \therefore x = \frac{125}{5} = 25$
- II.  $\sqrt{361y} + 95 = 0 \Rightarrow 19y = -95$   
 $\Rightarrow y = -5$  Hence,  $x > y$
19. (c) I.  $\frac{5}{7} - \frac{5}{21} = \frac{\sqrt{x}}{42} \Rightarrow \frac{15-5}{21} = \frac{\sqrt{x}}{42}$   
 $\Rightarrow \sqrt{x} = \frac{10}{21} \times 42 = 20 \therefore x = 20 \times 20 = 400$
- II.  $\frac{\sqrt{y}}{4} + \frac{\sqrt{y}}{16} = \frac{250}{\sqrt{y}} \Rightarrow \frac{4\sqrt{y} + \sqrt{y}}{16} = \frac{250}{\sqrt{y}}$   
 $\Rightarrow 5\sqrt{y} \times \sqrt{y} = 250 \times 16 \Rightarrow y = \frac{250 \times 16}{5} = 800$   
Hence,  $y > x$
20. (a) I.  $5x^2 - 18x + 9 = 0$   
 $\Rightarrow 5x^2 - 15x - 3x + 9 = 0 \Rightarrow 5x(x - 3) - 3(x - 3) = 0$   
 $\Rightarrow (5x - 3)(x - 3) \Rightarrow x = \frac{3}{5}$  or  $3$

**SPEED TEST 21**

1. (e)  $\frac{3}{5}, \frac{1}{8}, \frac{8}{11}, \frac{4}{9}, \frac{2}{7}, \frac{5}{7}$  and  $\frac{5}{12}$   
 $\Rightarrow 0.6, 0.125, 0.727, 0.444, 0.285, 0.714$  and  $0.416$   
 $\therefore$  Descending order =  $0.727, 0.714, \textcircled{0.6}, 0.444, 0.416, 0.285, 0.125,$   
 $\therefore$  third fraction =  $\frac{3}{5}$
2. (e)
3. (e)  $\frac{4}{5} = 0.8; \frac{8}{9} = 0.89; \frac{6}{7} = 0.86;$   
 $\frac{1}{3} = 0.33; \frac{3}{8} = 0.375;$   
 $\therefore$  Required sum =  $\frac{1}{3} + \frac{8}{9} = \frac{3+8}{9} = \frac{11}{9} = 1\frac{2}{9}$
4. (e)  $\frac{4}{9} = 0.44; \frac{5}{11} = 0.45; \frac{3}{7} = 0.43; \frac{1}{4} = 0.25; \frac{2}{5} = 0.4$   
 $\therefore$  Required difference =  $\frac{4}{9} - \frac{2}{5} = \frac{20-18}{45} = \frac{2}{45}$
5. (b)
6. (e)
- |               |               |                |                |                |
|---------------|---------------|----------------|----------------|----------------|
| $\frac{3}{7}$ | $\frac{4}{9}$ | $\frac{5}{11}$ | $\frac{7}{12}$ | $\frac{8}{15}$ |
| 0.42          | 0.44          | 0.45           | 0.58           | 0.53           |

7. (e)
- |               |                |               |               |               |
|---------------|----------------|---------------|---------------|---------------|
| $\frac{4}{9}$ | $\frac{5}{14}$ | $\frac{1}{2}$ | $\frac{3}{4}$ | $\frac{2}{3}$ |
| 0.44          | 0.357          | 0.5           | 0.75          | 0.66          |
8. (d)  $\frac{9}{31} = 0.29; \frac{3}{17} = 0.17; \frac{6}{23} = 0.26;$   
 $\frac{4}{11} = 0.36; \frac{7}{25} = 0.28$   
Hence, the largest fraction =  $\frac{4}{11}$
9. (d)  $\frac{3}{7} = 0.42, \frac{4}{9} = 0.44,$   
 $\frac{6}{11} = 0.54, \frac{7}{15} = 0.46$   
Second largest fraction =  $\frac{7}{15}$
10. (a)  $\frac{3}{5} = 0.6; \frac{5}{8} = 0.625; \frac{16}{25} = 0.64$   
 $\frac{4}{5} = 0.8; \frac{9}{16} = 0.5625$   
Clearly,  $\frac{9}{16} < \frac{3}{5} < \frac{5}{8} < \frac{16}{25} < \frac{4}{5}$
11. (c)  $\frac{6}{11} = 0.54; \frac{13}{23} = 0.56; \frac{15}{29} = 0.51;$   
 $\frac{3}{7} = 0.42; \frac{4}{13} = 0.31$   
Clearly,  $\frac{4}{13} < \frac{3}{7} < \frac{15}{29} < \frac{6}{11} < \frac{13}{23}$
12. (a) Decimal equivalent of fractions:  
 $\frac{4}{5} = 0.8; \frac{2}{7} = 0.286;$   
 $\frac{9}{13} = 0.692; \frac{6}{11} = 0.545; \frac{5}{9} = 0.55$   
Clearly,  $\frac{2}{7} < \frac{6}{11} < \frac{5}{9} < \frac{9}{13} < \frac{4}{5}$   
 $\therefore$  Second fraction =  $\frac{6}{11}$
13. (e) Decimal equivalent of each fraction.  
 $\frac{2}{7} = 0.286 \frac{3}{8} = 0.375 \frac{1}{3} = 0.33$   
 $\frac{4}{7} = 0.57$  Clearly,  $\frac{4}{7} > \frac{3}{8} > \frac{1}{3} > \frac{2}{7}$
14. (a)  $\frac{2}{3} = 0.66; \frac{5}{7} = 0.72; \frac{1}{6} = 0.166;$   
 $\frac{3}{8} = 0.37; \frac{5}{11} = 0.45; \frac{2}{7} = 0.28; \frac{3}{5} = 0.60$   
After arranging ascending order then fractions are  
 $\frac{1}{6}, \frac{2}{7}, \frac{3}{8}, \frac{5}{11}, \frac{3}{5}, \frac{2}{5}, \frac{2}{3}, \frac{5}{7}$
15. (a) Decimal equivalent of the fractions:  
 $\frac{7}{8} = 0.875; \frac{5}{7} = 0.7 \frac{2}{3} = 0.67; \frac{3}{5} = 0.6$   
Clearly,  $\frac{7}{8} > \frac{5}{7} > \frac{2}{3} > \frac{3}{5}$
16. (c) Decimal equivalent of each fraction:  
 $\frac{5}{11} = 0.45; \frac{3}{8} = 0.375$   
 $\frac{4}{9} = 0.44; \frac{2}{7} = 0.286 \therefore \frac{2}{7} < \frac{3}{8} < \frac{4}{9} < \frac{5}{11}$
17. (e)  $\frac{4}{9} = 0.44; \frac{2}{7} = 0.285;$   
 $\frac{3}{8} = 0.375; \frac{6}{13} = 0.46; \frac{5}{11} = 0.454$   
Clearly,  $\frac{6}{13} > \frac{5}{11} > \frac{4}{9} > \frac{3}{8} > \frac{2}{7}$

SPEED TEST 22

18. (c)  $\frac{9}{11} = 0.82; \frac{7}{9} = 0.78;$   
 $\frac{5}{6} = 0.83; \frac{4}{5} = 0.8; \frac{11}{13} = 0.85$   
 Clearly,  $\frac{7}{9} < \frac{4}{5} < \frac{9}{11} < \frac{5}{6} < \frac{11}{13}$
19. (b)  $\frac{2}{7} = 0.286; \frac{3}{5} = 0.6; \frac{5}{11} = 0.45; \frac{6}{17} = 0.353$   
 Clearly,  $\frac{2}{7} < \frac{6}{17} < \frac{5}{11} < \frac{3}{5}$
20. (c)  $\frac{5}{7} = 0.714; \frac{9}{11} = 0.82; \frac{3}{5} = 0.6; \frac{7}{9} = 0.78$   
 Clearly,  $\frac{9}{11} > \frac{7}{9} > \frac{5}{7} > \frac{3}{5}$
21. (c)  $5 + \frac{1}{6 + \frac{1}{81}} = 5 + \frac{1}{6 + \frac{10}{81}} = 5 + \frac{1}{\frac{496}{81}} = 5 + \frac{81}{496} = 5\frac{81}{496}$
22. (b)  $2\frac{1}{2} - 3\frac{2}{3} + 1\frac{5}{6} - \frac{2}{3} = 0$
23. (c)  $0.\overline{532}$   
 Numerator = period = 532  
 Denominator = as many nines as the number of digits in the denominator  
 $\therefore \text{Ans} = \frac{532}{999}$
24. (c)  $5.00983 = 5\frac{00983 - 00}{99900} = 5\frac{983}{99900}$
25. (e) 

17.838	38	38
0.007	77	77
310.020	22	22
327.866	38	37

  
 Thus, the answer =  $327.866\overline{38}$
26. (b) 

17.108	68	68
7.984	99	99
9.123	68	69

  
 Thus, the answer =  $9.123\overline{68}$
27. (e)  $27 \times 12 \times 5.526\overline{2} \times 0.\overline{6} = 27 \times 1\frac{2}{9} \times 5\frac{4736}{9000} \times \frac{6}{9}$   
 $= 27 \times \frac{11}{9} \times \frac{49736}{9000} \times \frac{6}{9}$   
 $= \frac{11 \times 49736 \times 2}{9000} = \frac{1094192}{9000} = 121.577$
28. (d) (a)  $0.725$   
 (b)  $0.72\overline{5} = 0.7255\dots$   
 (c)  $0.72\overline{5} = 0.7252525\dots$   
 (d)  $0.72\overline{5} = 0.725725725\dots$   
 Hence, largest number is  $0.72\overline{5}$ .
29. (a) Since, LCM of 3, 8, 10 = 120  
 $\therefore -\frac{7}{10} = -\frac{84}{120}, -\frac{2}{3} = -\frac{80}{120}$  and  $-\frac{5}{8} = -\frac{75}{120}$   
 $\therefore -\frac{84}{120} < -\frac{80}{120} < -\frac{72}{120} \Rightarrow -\frac{7}{10} < -\frac{2}{3} < -\frac{5}{8}$
30. (d)  $\frac{p}{q} = 2.5\overline{2} \dots(i)$   
 $\frac{100p}{q} = 252.5\overline{2} \dots(ii)$   
 On subtracting Eq. (i) from (ii), we get  
 $\frac{99p}{q} = 250 \Rightarrow \frac{p}{q} = \frac{99}{250} = 0.396$

1. (e) Total possible result = n(S)  ${}^{12}C_2 = \frac{12 \times 11}{1 \times 2} = 66$   
 Total number of event = n(E)  ${}^4C_2 = \frac{4 \times 3}{1 \times 2} = 6$   
 $\therefore$  Required probability =  $\frac{n(E)}{n(S)} = \frac{6}{66} = \frac{1}{11}$
2. (b) Total possible result = n(S) =  ${}^{12}C_3$   
 $= \frac{12 \times 11 \times 10}{1 \times 2 \times 3} = 220$  Total number of event = n(E)  
 Except blue marbles, selection of 3 marbles out of 7 marbles  
 $= {}^7C_3 = \frac{7 \times 6 \times 5}{1 \times 2 \times 3} = 35$   
 $\therefore$  Required probability =  $\left(1 - \frac{35}{220}\right) = \left(1 - \frac{7}{44}\right) = \frac{37}{44}$
3. (d) Total possible result = Selection of 3 marbles out of 12  
 $= {}^{12}C_3 = \frac{12 \times 11 \times 10}{1 \times 2 \times 3} = 220$   
 Total number of event n(E) =  ${}^3C_3 + {}^4C_3$   
 n(E) = 1 + 4 = 5  
 Required probability =  $\frac{n(E)}{n(S)} = \frac{5}{220} = \frac{1}{44}$
4. (e) Probability to be a Blue =  $\frac{{}^3C_3}{{}^7C_3}$   
 Probability to be a Red =  $\frac{{}^4C_3}{{}^7C_3}$   
 Required probability =  $\frac{{}^3C_3 + {}^4C_3}{{}^7C_3} = \frac{2}{35}$
5. (e) Total number of caps = 2 + 4 + 5 + 1 = 12  
 Total result n(S) =  ${}^{12}C_2$   
 $n(S) = \frac{12!}{2! \times 12! - 2} = \frac{12!}{2! \times 10!} = \frac{12 \times 11 \times 10!}{2 \times 1 \times 10!} = 66$   
 Favourable result n(E) =  ${}^2C_2 = 1$   
 Required probability p(E) =  $\frac{n(E)}{n(S)} = \frac{1}{66}$
6. (a) Total number of caps = 12  
 Total result n(S) =  ${}^{12}C_4$   
 $n(S) = \frac{12!}{4! \times 12! - 4} = \frac{12 \times 11 \times 10 \times 9 \times 8!}{4 \times 3 \times 2 \times 1 \times 8!} = 5 \times 99$   
 $n(E_1)$  = Out of 5 caps, number of ways to not pick a green cap =  ${}^5C_0$   
 $n(E_2)$  = Out of 7 caps, number of ways to pick 4 caps  
 $= {}^7C_4 = \frac{7!}{4! \times 7! - 4} = \frac{7 \times 6 \times 5 \times 4 \times 3!}{4 \times 3 \times 2 \times 1 \times 3!} = 35$   
 $p(E) = \frac{n(E_1) \times n(E_2)}{n(S)} = \frac{1 \times 35}{5 \times 99} = \frac{7}{99}$
7. (d) Total number of caps = 12  
 $n(S) = {}^{12}C_3 = \frac{12!}{3! \times 12! - 3} = \frac{12 \times 11 \times 10 \times 9!}{3 \times 2 \times 1 \times 9!} = 220$   
 $n(E_1)$  = Out of 4 red caps, number of ways to pick 2 caps =  ${}^4C_2$   
 $= \frac{4!}{2! \times 4! - 2} = \frac{4 \times 3 \times 2 \times 1}{2 \times 1 \times 2 \times 1} = 6$   
 $n(E_2)$  = Out of 5 green caps, number of ways to pick one cap =  ${}^5C_1 = 5$   
 $p(E) = \frac{n(E_1) \times n(E_2)}{n(S)} = \frac{6 \times 5}{220} = \frac{3}{22}$



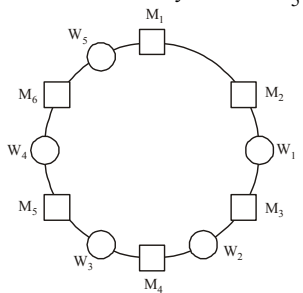
8. (b) Total number of caps = 12  
 $n(S) = {}^{12}C_1 = 12$   
 Out of (2 blue + 1 yellow) caps number of ways to pick one cap  $n(E) = {}^3C_1 = 3$   
 Required probability  $P(E) = \frac{n(E)}{n(S)} = \frac{3}{12} = \frac{1}{4}$
9. (c) Required probability =  $1 - \frac{{}^8C_2}{{}^{12}C_2} = 1 - \frac{28}{66} = \frac{38}{66} = \frac{19}{33}$
10. (b)  $n(S) =$  Number of ways to select 3 marbles out of 7 marbles =  ${}^7C_3$ .  
 $= \frac{7 \times 6 \times 5}{1 \times 2 \times 3} = 35$   
 $n(E) =$  Probability that two are green and one is red =  ${}^4C_2 \times {}^3C_1$   
 $= \frac{4 \times 3}{1 \times 2} \times 3 = 18$  Required probability =  $\frac{n(E)}{n(S)} = \frac{18}{35}$
11. (c) Total number of cards =  $104 = 2 \times 52$   
 and total number of jacks =  $8 = 2 \times 4$   
 $\therefore$  Probability for the jack in first draw =  $\frac{8}{104}$   
 and probability for the jack in second draw =  $\frac{7}{103}$   
 Since both the events are independent events.  
 Hence the probability that both of them are jacks.  
 $= \frac{8}{104} \times \frac{7}{103} = \frac{7}{1339}$
12. (d)  $P(E) =$  Probability of passing in English = 0.6  
 $P(E \cap M) =$  Probability of passing in Maths and English = 0.54  
 $P(M) =$  Probability of passing in Maths  
 Since,  $P(M)$  and  $P(E)$ , both are independent events.  
 So,  $P(E \cap M) = P(E) \times P(M)$   
 $P(M) = \frac{P(E \cap M)}{P(E)} = \frac{0.54}{0.6} = 0.9$   
 $\therefore$  Probability of failing in Maths =  $1 - 0.9 = 0.1 = 10\%$
13. (c) Probability of Head or Tail on the upper side for a coin =  $\frac{1}{2}$   
 $\therefore$  Probability of same side on the upper side for the three coins =  $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \left(\frac{1}{2}\right)^3 = \frac{1}{8}$   
 $\therefore$  angles are  $80^\circ$ ,  $60^\circ$  and  $40^\circ$
14. (c) For 1st student, Probability of selecting any one day as his birthday =  $\frac{365}{365} = 1$  Now, the remaining two students to be selected must have same day as their birthday as for the 1st student.  
 Probability of rest two students, having the same birthday as that of the 1st student =  $\frac{1}{365} \times \frac{1}{365}$   
 Hence, required probability =  $1 \times \frac{1}{(365)^2} = \frac{1}{(365)^2}$
15. (c) Probability of a particle lying in any particular half =  $\frac{1}{2}$   
 $\therefore$  Probability of all 10 particles lying in either 1st half or 2nd half =  $\left(\frac{1}{2}\right)^{10} + \left(\frac{1}{2}\right)^{10} = 2 \left(\frac{1}{2}\right)^{10} = \frac{1}{2^9}$
16. (c) Let E be the event of selecting the three numbers such that their product is odd and S be the sample space.  
 For the product to be odd, 3 numbers chosen must be odd.  
 $\therefore n(E) = {}^5C_3$   
 $n(S) = {}^9C_3$   
 $\therefore P(E) = \frac{n(E)}{n(S)} = \frac{{}^5C_3}{{}^9C_3} = \frac{5}{2}$

17. (c) Suppose three people have been given a, b and c number of items.  
 Then,  $a \times b \times c = 30$   
 Now, There can be 5 cases :  
**Case I :** When one of them is given 30 items and rest two 1 item each.  
 So, number of ways for  $(30 \times 1 \times 1) = \frac{3!}{2!} = 3$   
 (As two of them have same number of items)  
**Case II :** Similarly, number of ways for  $(10 \times 3 \times 1) = 3! = 6$   
**Case III :** Number of ways for  $(15 \times 2 \times 1) = 3! = 6$   
**Case IV :** Number of ways for  $(6 \times 5 \times 1) = 3! = 6$   
**Case V :** Number of ways for  $(5 \times 3 \times 2) = 3! = 6$   
 Here, either of these 5 cases are possible.  
 Hence, total number of ways =  $3 + 6 + 6 + 6 + 6 = 27$
18. (b)  $S = \{1, 2, 3, 4, 5, 6\}$ ;  $n(S) = 6$   
 $E(\text{not divisible by } 3) = \{1, 2, 4, 5\}$ ,  $n(E) = 4$   
 $\therefore P(\text{not divisible by } 3) = \frac{4}{6} = \frac{2}{3}$
19. (b)
20. (b) The 7 different letters of the word ARTICLE can be arranged in  $7!$  ways, i.e.,  $n(S) = 7!$   
 $n(E) = {}^3P_3 \times {}^4P_4 = 3! \times 4! = 6 \times 34$   
 $\therefore P(E) = \frac{6 \times 24}{7!} = \frac{1}{35}$
21. (c) Selection of 1 boy and 3 girls in  ${}^5C_1 \times {}^4C_3 = 5 \times 4 = 20$  ways  
 Selection of 4 girls and no boy in  ${}^5C_0 \times {}^4C_4 = 1 \times 1 = 1$  way  
 $\therefore n(E) =$  total no. of ways = 21  
 Without any restriction, a committee of 4 can be formed from among 4 girls and 5 boys in  ${}^9C_4$   
 $= \frac{9 \times 8 \times 7 \times 6}{4 \times 3 \times 2} = 9 \times 7 \times 2$  ways  
 $\therefore P(E) = \frac{n(E)}{n(S)} = \frac{21}{9 \times 7 \times 2} = \frac{1}{6}$
22. (c) Total no. of balls =  $4 + 3 + 5 = 12$   
 $n(S) = {}^{12}C_2 = \frac{12 \times 11}{2} = 66$   
 $n(E) = {}^4C_2 + {}^3C_2 + {}^5C_2 = \frac{4 \times 3}{2} + \frac{3 \times 2}{2} + \frac{5 \times 4}{2}$   
 $= 6 + 3 + 10 = 19$   
 $\therefore$  Required probability,  $P(E) = \frac{n(E)}{n(S)} = \frac{19}{66}$
23. (b)  $P(\text{At least one good}) = 1 - P(\text{All bad})$   
 $= 1 - \frac{{}^4C_3}{{}^{12}C_3} = 1 - \frac{4}{220} = 1 - \frac{1}{55} = \frac{54}{55}$
24. (b) Total number of balls =  $5 + 4 + 3 = 12$   
 $n(S) = {}^{12}C_3 = \frac{12 \times 11 \times 10}{1 \times 2 \times 3} = 220$   
 i.e., 3 marbles out of 12 marbles can be drawn in 220 ways.  
 If all the three marbles are of the same colour, it can be done in  ${}^5C_3 + {}^4C_3 + {}^3C_3 = 10 + 4 + 1 = 15$  ways  
 Now,  $P(\text{all the 3 marbles of the same colour}) + P(\text{all the 3 marbles are not of the same colour}) = 1$   
 $\therefore P(\text{all the 3 marbles are not of the same colour})$   
 $= 1 - \frac{15}{220} = \frac{205}{220} = \frac{41}{44}$
25. (b)  $P(\text{At least one from Karnataka}) = 1 - P(\text{No one from Karnataka})$   
 $= 1 - \frac{{}^{10}C_4}{{}^{15}C_4} = 1 - \frac{10 \times 9 \times 8 \times 7}{15 \times 14 \times 13 \times 12} = 1 - \frac{2}{13} = \frac{11}{13}$

**SPEED TEST 23**

1. (a) Principal can be appointed in 36 ways.  
 Vice principal can be appointed in the remaining 35 ways.  
 Total number of ways =  $36 \times 35 = 1260$

2. (d) Two possibilities are there :  
 (i) Chemistry part I is available in 8 books with Chemistry part II.  
 or  
 (ii) Chemistry part II is not available in 8 books but Chemistry part I is available.
- Total No. of ways =  $1 \times 1 \times {}^6C_1 + {}^7C_3 = 6 + \frac{7 \times 6 \times 5}{3 \times 2} = 6 + 35 = 41$
3. (c) Required number of ways  
 = ways of selecting 4 objects out of 6 given objects  
 =  ${}^6C_4 = \frac{6 \times 5}{2} = 15$
4. (c) Total no. of unrestricted arrangements =  $(7 - 1)! = 6!$   
 When two particular person always sit together, the total no. of arrangements =  $6! - 2 \times 5!$   
 Required no. of arrangements =  $6! - 2 \times 5!$   
 =  $5!(6 - 2) = 5 \times 4 \times 3 \times 2 \times 4 = 480$ .
5. (c) In MATHEMATICS, the consonants *M* and *T* are repeated two times each.  
 Also the vowel *A* is repeated two times.  
 Since there are four vowels, *A, A, E* and *I*; *A* being repeated, therefore vowels can be arranged in  $\frac{4!}{2} = 12$  ways.  
 Now remaining 7 consonants, with *M, T* being repeated, can be written in  $\frac{7!}{2 \times 2} = 7 \times 6 \times 5 \times 3 \times 2 = 1260$  ways.  
 Now four vowels together can take any of the 8 places as shown below:  
VC VC VC VC VC VC VC V  
 $\therefore$  Total number of ways in which the letters of the word MATHEMATICS can be arranged such that vowels always come together =  $1260 \times 8 \times 12 = 120960$ .
6. (c) There are 8 different letters in the word MATHEMATICS; three letters *M, A* and *T* being repeated.  
 The number of ways in which four letters of the word MATHEMATICS can be arranged =  ${}^8P_4$   
 =  $8 \times 7 \times 6 \times 5 = 1680$
7. (d) Let the four candidates gets the votes *x, y, z* and *w* such that  $x + y + z + w = 51$  ... (i)  
 Here  $x \geq 0, y \geq 0, z \geq 0, w \geq 0$   
 The number of solutions of the above equation in this case is same as the number of ways in which the votes can be given if atleast no two candidates get equal number of votes.  
 (Note : The number of ways in which *n* identical things can be distributed into *r* different groups =  ${}^{n+r-1}C_{r-1}$ )  
 $\therefore$  Total number of solutions of eqn. (i) =  ${}^{5+4-1}C_{4-1} = {}^8C_3 = 56$   
 But in 8 ways the two candidate gets equal votes which are shown below :  
 (2, 2, 1, 0), (2, 2, 0, 1), (0, 2, 2, 1), (1, 2, 2, 0), (0, 1, 2, 2), (1, 0, 2, 2), (2, 0, 1, 2), (2, 1, 0, 2)  
 Hence the required number of ways =  $56 - 8 = 48$
8. (a) 6 men can be sit by 5! ways and on remaining 6 seats, 5 women can sit by  ${}^6P_5$  ways .  
 $\therefore$  Required number of ways =  $5! \times {}^6P_5 = 6! \times 5!$



9. (c) The student can choose 4 questions from first 5 questions or he can also choose 5 questions from the first five questions.  
 $\therefore$  No. of choices available to the student =  ${}^5C_4 \times {}^8C_6 + {}^5C_5 \times {}^8C_5 = 196$ .
10. (c) There are 55 girls and 45 boys in the college.  
 Out of 45 boys, 36 are studying Statistics and 9 are not studying statistics.  
 $\therefore$  The probability that a boy picked up at random is not studying Statistics =  $\frac{9}{45} = \frac{1}{5}$ .
11. (a) No. of ways in which 6 men and 5 women can dine at a round table =  $6! \times 5!$
12. (b) The student can answer by using the following combinations 4 from 5 and 6 from 8 or 5 from 5 and 5 from 8  
 i.e.  ${}^5C_4 \times {}^8C_6 + {}^5C_5 \times {}^8C_5 = \frac{5!}{4!1!} \times \frac{8!}{6!2!} + \frac{5!}{5!0!} \times \frac{8!}{3!5!}$   
 =  $140 + 56 = 196$  Ways
13. (c) Since 2 players are always included  
 $\therefore$  We have to select only 9 players from 20.  
 $\therefore$  No. of ways =  ${}^{20}C_9$ . Also 4 are always excluded. i.e. 9 should be selected from 16 only, i.e.  ${}^{16}C_9$  ways.
14. (c) Number of ways =  $\frac{6!}{2!}$  ( $\because$  T letter comes in two time)  
 =  $\frac{6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 1} = 360$
15. (e) CYCLE whereas C comes two times.  
 So, arrangements are =  $\frac{5!}{2!} = \frac{5 \times 4 \times 3 \times 2}{2} = 60$  ways
16. (e) Required no. of ways =  $\frac{5!}{2!} = 60$  is  
 Total no. of letters in the word is 5; T is repeated twice.
17. (c) The committee of 4 persons is to be so formed that it has at least 1 woman.  
 The different ways that we can choose to form such a committee are:  
 (i) 1w. 3 m in  ${}^4C_1 \times {}^6C_3 = 4 \times \frac{6 \times 5 \times 4}{3 \times 2 \times 1} = 80$   
 (ii) 2w. 2 m in  ${}^4C_2 \times {}^6C_2 = \frac{4 \times 3}{2 \times 1} \times \frac{6 \times 5}{2 \times 1} = 90$   
 (iii) 3w. 1 m in  ${}^4C_3 \times {}^6C_1 = 4 \times 6 = 24$   
 (iv) 4w in  ${}^4C_4 = 1$   
 $\therefore$  Total no. of different ways in which a committee of 4 persons can be formed so that it has at least one woman. =  $80 + 90 + 24 + 1 = 195$
18. (d) The committee of 4 persons is to be so formed that it has at least 2 men. The different ways that we can choose to form such a committee are:  
 (i) 2m. 2w in  ${}^6C_2 \times {}^4C_2 = \frac{6 \times 5}{2 \times 1} \times \frac{3 \times 3}{2 \times 1} = 90$   
 (ii) 3m. 1w in  ${}^6C_3 \times {}^4C_1 = \frac{6 \times 5 \times 4}{3 \times 2 \times 1} \times 4 = 80$   
 (iii) 4m in  ${}^6C_4 = \frac{6 \times 5}{2 \times 1} = 15$   
 $\therefore$  Total no. of different ways in which a committee of 4 persons can be formed so that it has at least 2 men. =  $90 + 80 + 15 = 185$
19. (e) One girl can be chosen in  ${}^4C_1 = 4$  ways and 4 boys can be chosen in  ${}^6C_4 = 15$  ways  
 $\therefore$  Total number of ways =  $4 \times 15 = 60$  ways
20. (a) CORPORATION = 11 letters  
 'O' comes thrice, 'R' twice.  
 $\therefore$  total no. of ways =  $\frac{11!}{3!2!} = 3326400$
21. (b) There are seven letters in the word "COUNTRY" and two vowels O and U. Considering two vowels as one unit, total number of letters will be  $5 + 1 = 6$ . So, number of arrangements =  $6!$   
 Now, the two vowels can be arranged in 2! ways among themselves.  
 $\therefore$  Total number of ways =  $6! \times 2! = 1440$

22. (c) The word PROBLEM consists of 7 distinct letters.  
 $\therefore$  Number of arrangements =  $7!$   
 $= 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 5040$
23. (e) Total possible result =  $n(S)$   
 $= {}^{12}C_2 = \frac{12 \times 11}{1 \times 2} = 66$   
 Total number of event =  $n(E) = {}^4C_2 = \frac{4 \times 3}{1 \times 2} = 6$   
 $\therefore$  Required probability =  $\frac{n(E)}{n(S)} = \frac{6}{66} = \frac{1}{11}$
24. (b) Total possible result =  $n(S) = {}^{12}C_3 = \frac{12 \times 11 \times 10}{1 \times 2 \times 3} = 220$   
 Total number of event =  $n(E)$   
 Except blue marbles, selection of 3 marbles out of 7 marbles  
 $= {}^7C_3 = \frac{7 \times 6 \times 5}{1 \times 2 \times 3} = 35$   
 $\therefore$  Required probability =  $\left(1 - \frac{35}{220}\right) = \left(1 - \frac{7}{44}\right) = \frac{37}{44}$
25. (e) There are 6 letter in the word 'ATTEND' whereas, T comes two times.  
 So, required number of ways =  $\frac{6!}{2!} = \frac{720}{2} = 360$
26. (a) In word 'offices', there are 7 letters and F comes two times.  
 Required number of ways =  $\frac{7!}{2!} = \frac{7 \times 6 \times 5 \times 4 \times 3 \times 2!}{2!} = 2520$
27. (e) ARMOUR = 6 letter whereas R repeated twice  
 $\therefore \frac{6!}{2!} = \frac{6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 1} = 360$
28. (a) Total number of ways to form committee  
 $= {}^5C_2 \times {}^6C_2 \times {}^3C_1 = \frac{5 \times 4}{1 \times 2} \times \frac{6 \times 5}{1 \times 2} \times \frac{3}{1} = 10 \times 15 \times 3 = 450$
29. (d) Total number of ways to form committee  
 $= {}^5C_2 \times {}^6C_0 \times {}^3C_3 + {}^5C_1 \times {}^6C_1 \times {}^3C_3 + {}^5C_0 \times {}^6C_2 \times {}^3C_3$   
 $= 10 + 30 + 15 = 55$
30. (c) Total number of ways to stand boys and girls together  
 $= 4! \times 3! \times 2! = 4 \times 3 \times 2 \times 3 \times 2 \times 2 = 288$

**SPEED TEST 24**

1. (b) No of right angles in one hour = 2  
 $\therefore$  No of right angles in 24 hours =  $24 \times 2 = 48$
2. (a) Hour hand covers an angle of  $360^\circ$  in 12 hours.  
 $\therefore$  Time taken to cover an angle of  $135^\circ$   
 $= \frac{12}{360} \times 135 = 4.5$  h  $\therefore$  Required time =  $3 + 4.5 = 7.5 = 7:30$
3. (d) Angle made by hour hand for 12 hours =  $360^\circ$   
 Angle made by hour hand for 1 hour =  $\frac{360^\circ}{12}$   
 $\therefore$  Angle made by hour hand for 6 hours =  $\frac{360^\circ}{12} \times (6) = 180^\circ$
4. (b) In a year, number of weeks = 52 extra day = 1  
 From 2002 to 2008, there are 6 years.  
 So number of extra days =  $6(1) = 6$   
 While 2004 and 2008 are leap years, having one more extra day apart from the normal extra day.  
 Thus, number of extra days =  $6 + 1 + 1 = 8$   
 Out of these 8 extra days, 7 days form a week and so 1 day remains.  
 Hence, March 1, 2002 is 1 day less than March 1, 2008 i.e., it is Friday.
5. (e) In one hour, hour hand and minute hand are at right angles 2 times.  
 Time = 10 p.m - 1 p.m = 9 hr.  
 $\therefore$  No. of times, when both hands are perpendicular to each other in 9 hr =  $9 \times 2 = 18$
6. (b) Here  $H \times 30 = 4 \times 30 = 120^\circ$ .  
 (Since initially the hour hand is at 4.  $\therefore H = 4$ ).  
 Required angle  $A = 90^\circ$  and since,  $H \times 30 > A^\circ$  so, there will be two timings.

Required time  $T = \frac{2}{11}(H \times 30 \pm A)$  minutes past H.

$\therefore$  One timing =  $\frac{2}{11}(4 \times 30 + 90)$  minutes past 4  
 $= 38 \frac{2}{11}$  minutes past 4. Or 4 : 38 approx.

7. (a) Since, in one hour, two hands of a clock coincide only once, so, there will be value.

Required time  $T = \frac{2}{11}(H \times 30 + A^\circ)$  minutes past H.

Here H = initial position of hour hand = 3

$A^\circ =$  required angle =  $0^\circ$  (Since 3 o'clock)  
 (Since it coincides)

$T = \frac{2}{11}(3 \times 30 + 0)$  minutes past 3

$= 16 \frac{4}{11}$  minutes past 3.

8. (b) At 5 o'clock, the hands are 25 min. spaces apart.  
 To be at right angles and that too between 5.30 and 6, the minute hand has to gain  $(25 + 15) = 40$  min. spaces  
 55 min. spaces are gained in 60 min.

40 min. spaces are gained in  $\left(\frac{60}{55} \times 40\right)$  min. =  $43 \frac{7}{11}$  min.

$\therefore$  Required time =  $43 \frac{7}{11}$  min. past 5

9. (d) At 4 o'clock, the hands of the watch are 20 min. spaces apart.  
 To be in opposite directions, they must be 30 min. spaces apart.  
 $\therefore$  Minute hand will have to gain 50 min. spaces  
 55 min. spaces are gained in 60 min.

50 min. spaces are gained in  $\left(\frac{60}{55} \times 50\right)$  min. or  $54 \frac{6}{11}$  min.

$\therefore$  Required time =  $54 \frac{6}{11}$  min. past 4

10. (a) 55 min. spaces are covered in 60 min.

60 min. spaces are covered in  $\left(\frac{60}{55} \times 60\right)$  min. =  $65 \frac{5}{11}$  min.

Loss in 64 min. =  $\left(65 \frac{5}{11} - 64\right) = \frac{16}{11}$  min.

Loss in 24 hrs. =  $\left(\frac{16}{11} \times \frac{1}{64} \times 24 \times 60\right)$  min =  $32 \frac{8}{11}$  min.

11. (c) 100 years contain 5 odd days.  
 $\therefore$  Last day of 1st century is Friday  
 200 years contain  $(5 \times 2) = 3$  odd days.  
 $\therefore$  Last day of 2nd century is Wednesday.  
 300 years contain  $(5 \times 3) = 15 = 1$  odd day.  
 $\therefore$  Last day of 3rd century is Monday.  
 400 years contain 0 odd day.  
 $\therefore$  Last day of 4th century is Sunday.  
 This cycle is repeated.  
 $\therefore$  Last day of a century cannot be Tuesday or Thursday or Saturday.

12. (a) The century divisible by 400 is a leap year.

$\therefore$  The year 700 is not a leap year.

13. (b) x weeks x days =  $(7x + x)$  days =  $8x$  days

14. (c) On 31st December, 2005 it was Saturday.  
 Number of odd days from the year 2006 to the year 2009  
 $= (1 + 1 + 2 + 1) = 5$  days

$\therefore$  On 31st December 2009, it was Thursday.

Thus, on 1st Jan, 2010 it is Friday.

15. (c) The year 2004 is a leap year. It has 2 odd days.

$\therefore$  The day on 8th Feb, 2004 is 2 days before the day on 8th Feb, 2005. Hence, this day is Sunday.

16. (d) Count the number of odd days from the year 2007 onwards from the year 2007 onwards to get the sum equal to 0 odd day.

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Odd day	1	2	1	1	1	2	1	1	1	2	1

17. (b) Each day of the week is repeated after 7 days  
So, after 63 days, it will be Monday.  
∴ After 61 days, it will be Saturday.
18. (c) 17th June, 1998 = (1997 years + Period from 1.1.1998 to 17.6.1998)  
Odd days in 1600 years = 0  
Odd days in 300 years =  $(5 \times 3) \equiv 1$   
97 years has 24 leap years + 73 ordinary years.  
Number of odd days in 97 years =  $(24 \times 2 + 73) = 121 = 2$  odd days.  
Jan. Feb. March April May June  
 $(31 + 28 + 31 + 30 + 31 + 17) = 168$  days  
= 24 weeks = 0 odd day  
Total number of odd days =  $(0 + 1 + 2 + 0) = 3$   
Given day is Wednesday.
19. (d) No. of days between 21st July, 1947 and 21st July, 1999 = 52 years + 366 days.  
= 13 leap years + 39 ordinary years + 366 days  
=  $(13 \times 2)$  odd days + 39 odd days + 2 odd days  
=  $(26 + 39 + 2)$  odd days = 67 odd days = 4 odd days.  
=  $(7 - 4) = 3$  days before the week day on 21st July, 1999 = Saturday.
20. (b) Next train for N. Delhi leaves at 8:30 p.m. Since time interval between two trains for N. Delhi is 45 minutes. A train for New Delhi has left 15 minutes ago.  
Time of information =  $8:30 - 45 + 15 = 8$  P.M.
21. (b) Time between 1 p.m. on Tuesday to 1 p.m. on Thursday = 48 hrs. The watch gains  $(1 + 2) = 3$  minutes in 48 hrs. it gains 1 min, in 16 hrs.  
Hence, it will show correct time at 5 a.m. on Wednesday.
22. (b) A reverse flow chart will look as follows:  
Desk officer - Friday  $\leftarrow$  Same day  
Senior clerk - Friday  $\leftarrow$  Senior clerk's leave - Thursday  $\leftarrow$  Next day  
Inward clerk - Wednesday  $\leftarrow$
23. (b) Ashish leaves his house at 6:40 AM.  
Ashish reaches Kunal's house at 7:05 AM.  
They finish Breakfast at  $7:05 + 0:15 = 7:20$  AM.  
That's the time when they leave Kunal's house for their office.
24. (b) Anuj reached at = 8 : 15 AM  
Time when the other man came =  $8:15 + 0:30 = 8:45$  AM (who was 40 minutes late)  
∴ scheduled time of meeting =  $8:45 - 0:40 = 8 : 05$  AM
25. (d) First clock will gain  $11 \times 2$  minutes in 11 hrs., and second clock will lose  $11 \times 1$  minutes in 11 hrs.  
Hence difference will be 33 minutes.
26. (d) 1st of month was Tuesday, hence the date on first Saturday was 5th.  
Hence the other Saturdays of the month are 12, 19, 26. Rama met her brother on 26th.
27. (d)  $2\frac{1}{2}$  hrs = 150 min  
∴ Angle covered by hour hand in 1 min =  $\frac{1^\circ}{2}$   
∴ Angle covered by hour hand in  $2\frac{1}{2}$  hrs.  
= 150 min =  $150 \times \frac{1^\circ}{2} = 75^\circ$
28. (c) Total no. of days between 27.3.1995 and 1.11.1994 =  $27 + 28 + 31 + 31 + 29 = 146$   
Now, 146 is not completely divided by 7. It we have one day more then we have 147 days which is completely divided by 7. Thus, the days of the week on 1 Nov, 1994 was Monday. But the day will be Tuesday ( We have 146 days)
29. (a) 16 - 1 - 1997—Thursday.  
Number of normal year between 1997 and 2000 = 2  
We know every year has 1 odd day.  
Now, number of leap year = 1  
Leap year has 2 odd days  
∴ odd days =  $2 + 2 = 4$  ∴ 4 Jan, 2000 was Tuesday.
30. (b) Day is on 28th Feb = Tuesday  
Since, the leap year is excluded  
∴ The day is on 28th March = Tuesday

## SPEED TEST 25

1. (e)  $2\pi r = 88 \therefore r = \frac{88 \times 7}{44} = 14$  m  
∴ Area =  $\pi r^2$ .  
=  $\frac{22}{7} \times 14 \times 14 = 616$  m<sup>2</sup>.  $2\pi r_1 = 220$   $r_1 = \frac{220 \times 7}{2 \times 22} = 35$  m  
∴ Area =  $\pi r_1^2 = \frac{22}{7} \times 35 \times 35 = 3850$  m<sup>2</sup>  
Difference =  $3850 - 616 = 3234$  m<sup>2</sup>.
2. (b)  $2(l + b) = 668 \therefore l + b = 334 \therefore l = (334 - b)$   
Length of a rectangle = Twice the diameter of a circle  
 $334 - b = 2 \times d = 2 \times 2r = 4r \therefore r = \frac{334 - b}{4}$   
Area of square = Circumference of circle  $(2r)^2 = 2\pi r$   
 $484 = \frac{2 \times 22(334 - b)}{7 \times 4} \therefore 334 - b = \frac{484 \times 7 \times 4}{2 \times 22} = 308$   
∴  $b = 334 - 308 = 26$  cm
3. (c) Area of square  $(a)^2 = 196$   
∴  $a = \sqrt{196} = 14$  cm Radius of a circle =  $14 \times 2 = 28$  cm  
∴ Circumference =  $\frac{22}{7} \times 2 \times 28 = 176$  cm  
Now according to question b, = 176 m  
Also  $2(l + b) = 712$   $2(l + 176) = 712$   
 $l + 176 = 356 \therefore l = 356 - 176 \therefore l = 180$  cm  
Area of rectangle =  $l \times b = 240$
4. (d) Either length or breadth should be clear, then answer can be determined.
5. (c) Circumference of smaller circle = 132 m  $2\pi r_1 = 132$   
 $r_1 = \frac{132}{2\pi} = \frac{132 \times 7}{2 \times 22} = 21$  m  
Circumference of larger circle = 176 m  
 $2\pi r_2 = 176$   $r_2 = \frac{176}{2\pi} = \frac{176 \times 7}{2 \times 22} = 28$  m  
Required difference =  $\pi \{(28)^2 - (21)^2\}$   
=  $\frac{22}{7} \{(28 + 21)(28 - 21)\} = \frac{22}{7} \times 49 \times 7 = 1078$  sq m
6. (c) Area of the circle = 39424 sq cm  
 $\pi r^2 = 39424 \Rightarrow \frac{22}{7} \times r^2 = 39424$   
 $\Rightarrow r^2 = \frac{39424 \times 7}{22} \Rightarrow r^2 = 1792 \times 7$   
 $\Rightarrow r = \sqrt{12544} \therefore r = 112$  cm  $4a = r$   $4a = 112$   $a = 28$   
∴ Area of the square =  $a^2 = (28)^2 = 784$  sq cm
7. (c) Suppose the length of the field is  $x$  m.  
So, the breadth of the field will be  $\frac{3x}{4}$  m.  
  
 $\Rightarrow x \times \frac{3x}{4} = 300 \therefore x^2 = \frac{300 \times 4}{3} = 400$   
 $x = \sqrt{400} \therefore x = 20$  ∴ Area of the garden  
=  $\{(20 + 3)(15 + 3)\} - 300 = \{(23)(18)\} - 300$   
= 114 square metre
8. (a) Let the length and breadth of the rectangle be  $x$  and  $y$ .  
Then, its area =  $xy$  New length =  $x \left( \frac{160}{100} \right) = \frac{8x}{5}$

As the area remains the same, the new breadth of the rectangle  
 $= \frac{xy}{8x} = \frac{5y}{8}$   
 $\frac{5y}{8}$

$\therefore$  decrease in breadth  $= y - \frac{5y}{8} = \frac{3y}{8}$

$\therefore$  % decrease in breadth  $= \frac{3y \times 100}{8 \times y} = \frac{75}{2} = 37\frac{1}{2}\%$

9. (a) By the theorem :

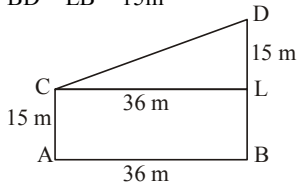
% increase in its area  $= 2 \times 5 + \frac{5^2}{100} = 10 + 0.25 = 10.25\%$

10. (a) Required % increase  $= 2 \times 2 + \frac{2^2}{100} = 4 + 0.04 = 4.04\%$

11. (b) From the figure, it is required to find the length CD.

We have CA = LB = 15m

$\therefore$  LD = BD - LB = 15m



$\therefore$  CD  $= \sqrt{CL^2 + DL^2} = \sqrt{36^2 + 15^2} = \sqrt{1521} = 39$  cm

12. (d) Total area = Area of square + 4 (Area of a semi-circle)  
 $= 2^2 + 4 \left( \frac{1}{2} \pi r^2 \right) = (4 + 2\pi) \text{ m}^2$  [radius  $= \frac{2}{2} = 1$ ]

13. (d) Area of the square = 22 cm<sup>2</sup>

$\therefore$  Perimeter of the square =  $4\sqrt{22}$  m

Now, this perimeter is the circumference of the circle.

$\therefore$  circumference of the circle  $= 2\pi r = 4\sqrt{22}$

$\therefore r = \frac{2\sqrt{22}}{\pi}$   $\therefore$  area of the circle  $= \pi r^2 = \pi \left( \frac{2\sqrt{22}}{\pi} \right)^2$

$= \frac{\pi \times 4 \times 22}{\pi^2} = \frac{4 \times 22}{\pi} = \frac{4 \times 22 \times 7}{22} = 28 \text{ cm}^2$

14. (b) Such area = Area of semicircle - Area of such largest triangle

$= \frac{\pi}{2} r^2 - r^2 = r^2 \left( \frac{\pi}{2} - 1 \right) = 14^2 \times \frac{(22-14)}{14} = 112 \text{ cm}^2$

15. (b) In any quadrilateral,

Area of the quadrilateral

$= \frac{1}{2} \times \text{any diagonal} \times (\text{sum of perpendiculars drawn on diagonal from two vertices})$

$= \frac{1}{2} \times D \times (P_1 + P_2)$

$= \frac{1}{2} \times 23 \times (17 + 7) = 12 \times 23 = 276 \text{ sq cm}$

16. (a) Let the radius of the sphere be r cm and side of the cube be x cm. Then, diagonal of cube = Diameter of sphere or,

$\sqrt{3}x = 2r$  or,  $x = \frac{2r}{\sqrt{3}}$

Ratio of volumes = Vol. of cube : Vol. of sphere

$= x^3 : \frac{4}{3} \pi r^3 = \left( \frac{2r}{\sqrt{3}} \right)^3 : \frac{4}{3} \pi r^3 = \frac{8}{3\sqrt{3}} : \frac{4}{3} \pi = 2 : \sqrt{3}\pi$

17. (b) By the formula, we have for cubes

ratio of sides = (ratio of volumes)<sup>1/3</sup>  
 and ratio of surface areas = [ratio of volumes]<sup>2/3</sup>

$\therefore$  ratio of sides  $= (8 : 125)^{1/3} \left( \frac{8}{125} \right)^{1/3} = \frac{2}{5} = 2 : 5$

and ratio of surface areas

$= (8 : 125)^{2/3} \left( \frac{8}{125} \right)^{2/3} = \frac{4}{25} = 4 : 25$

18. (b) Length of the wire = circumference of the circle

$= 2\pi \times 42 = \frac{2 \times 22 \times 42}{7} = 264$  cm

Now, perimeter of the rectangle = 264 cm.

Since, perimeter includes double the length and breadth, while finding the sides we divide by double the sum of ratio

Therefore, length  $= \frac{264}{2(6+5)} \times 6 = 72$  cm

and breadth  $= \frac{264}{2(6+5)} \times 5 = 60$  cm

19. (b) Edge of the cube  $= \sqrt[3]{343} = 7$  cm

$\therefore$  Radius of cone = 3.5 cm

height = 7 cm volume of cone  $= \frac{1}{3} \pi r^2 h$

$= \frac{1}{3} \times \frac{22}{7} \times 3.5 \times 3.5 \times 7 = \frac{1}{3} \times 22 \times 12.25 \approx 90$  cc

20. (a) Let the final length of the side of the smaller square be a.

Now,  $a + 10 + 7 = 19$

$a = 19 - 17 = 2$

$\therefore$  Area of the smaller square  $= (2)^2 = 4$

$\therefore$  Decrease in the area of the smaller square  $= 16 - 4 = 12$  sq. units.

21. (c) Let the breadth be b.

Then, length = b + 13 Perimeter = 50 = 2(l + b)

$2(b + 13 + b) = 50$   $b = 6$  m  $l = 6 + 13 = 19$  m

$\therefore$  Area = length  $\times$  breadth = 19 (6) = 114 m<sup>2</sup>

22. (c) Let the radius of hemispherical bowl = r

$\therefore$  Volume of hemispherical bowl  $= \frac{2}{3} \pi r^3$

Let the height of cylindrical vessel = h

$r = h \left( 1 + \frac{50}{100} \right)$   $h = \frac{2}{3} r$

Volume of cylindrical vessel  $= \pi r^2 (2r/3) = \frac{2}{3} \pi r^3$

Hence, volume of the beverage in the cylindrical vessel

$= \frac{(2/3)\pi r^3}{(2/3)\pi r^3} \times 100\% = 100\%$

23. (d) Let the angles be 4x, 3x and 2x.

$4x + 3x + 2x = 180^\circ$   $x = 20^\circ$

$\therefore$  angles are 80°, 60° and 40°.

24. (c) Let the maximum no of small pieces of cake be n.

Now,  $n(5 \times 5 \times 10) = 5 \times 30 \times 30$

$n = \frac{5 \times 30 \times 30}{5 \times 5 \times 10} = 18$

25. (a) Let r and h be the radius and height of cylinder respectively.

Since the cylinder is made by rolling 100 cm side.

$\therefore h = 50$  cm  $= \frac{1}{2} m$  and  $2\pi r = 100$  cm  $\Rightarrow r = \frac{1}{2\pi}$  m

$\therefore$  Curved surface area  $= 2\pi r h = 2\pi \times \frac{1}{2\pi} \times \frac{1}{2} = \frac{1}{2} m^2$

Cost of painting = ₹ 50 per m<sup>2</sup>

$\therefore$  Total cost of painting  $= \frac{1}{2} \times 50 = ₹ 25$

**SPEED TEST 26**

1. (e) Carpenter X = 2 days

Carpenter Y = 4 days

Total number of days by both X and Y  $= \frac{2 \times 4}{2 + 4} = 1\frac{1}{3}$  days

2. (a) Total number of days that carpenter Z will take to make one

piece each of all four items together

$= 3 + 2 + 12 + 15 = 32$  days

3. (c) Carpenter X makes a table in = 3 days  
 Carpenter Y makes a table in = 6 days  
 Carpenter Z makes a table in = 2 days  
 Total time taken by X, Y and Z  

$$= \frac{3 \times 6 \times 2}{3 \times 6 + 6 \times 2 + 3 \times 2} = \frac{3 \times 6 \times 2}{18 + 12 + 6} = \frac{3 \times 6 \times 2}{36} = 1 \text{ days}$$
4. (d) Suppose the expenditure of company A in year 2007 was ₹ x lakh.  

$$\therefore 40 = \frac{1.5}{x} \times 100 \quad 40x = 150 \quad x = \frac{150}{40} = 3.75 \text{ lakh}$$
5. (d) Data insufficient.
6. (a) Suppose in 2004, expenditure by company A and B each was ₹ one lakh.  
 For company A  

$$\therefore 35 = \frac{I_1 - I}{I} \times 100 \Rightarrow 135I = 100I_1 \quad \dots (i)$$
  
 For company B  $40 = \frac{I_2 - I}{I} \times 100$   

$$\Rightarrow 140I = 100I_2 \quad \dots (ii)$$
  
 Equations (i) and (ii)  $\frac{I_1}{I_2} = \frac{135}{140} = \frac{27}{28} = 27 : 28$
7. (e) Average percentage profit earned by company B over the years.  

$$= \frac{40 + 45 + 40 + 35 + 30 + 45}{6} = \frac{235}{6} = 39\frac{1}{6}\%$$
8. (c) If in year 2008, income of each company was x lakhs then for company A  

$$50 = \frac{x - E_1}{E_1} \times 100 \quad 150E_1 = 100x \quad \dots (i)$$
  

$$30 = \frac{x - E_2}{E_2} \times 100 \quad 130E_2 = 100x \quad \dots (ii)$$
  
 From equations (i) and (ii)  $\frac{E_1}{E_2} = \frac{130}{150} = 13 : 15$
9. (c)  $\frac{(2.5 + 3 + 3.5)1000}{3} = 3000$
10. (d) Total number in 2002 = 0.5 + 1 + 1.5 = 3 × 1000 = 3,000  
 Total number in 2003 = 1 + 2 + 2.5 = 5.5 × 1000 = 5,500  
 Total number in 2004 = 1.5 + 2.5 + 3 = 7 × 1000 = 7,000  
 Total number in 2005 = 2.5 + 3 + 3.5 = 9 × 1000 = 9,000  
 Total number in 2006 = 2.5 + 3 + 3.5 = 9 × 1000 = 9,000  
 Total number in 2007 = 2.5 + 3 + 3.5 = 9 × 1000 = 9,000  
 From graph it is clear that number is same in 2005, 2006 and 2007.
11. (a) In 2004, B + C = 2.5 + 3 = 5.5 × 1000 = 5500  
 In 2007, B + C = 3.5 + 3 = 6.5 × 1000 = 6500  
 Required percentage =  $\frac{5500}{6500} \times 100 = 84.61\% \approx 85\%$
12. (d)  $(1 + 2 + 2.5) - 3 = 2.5 \times 1000 = 2500$
13. (b)  $\frac{(1 + 2 + 1.5 + 2.5 + 3 + 2.5) \times 1000}{6} = 2083 \approx 2090$
14. (a) Percent increase in exports of Company C from 2004 to 2008. =  $\frac{(750 - 500) \times 100}{500} = 50\%$
15. (e) Total exports of Company A = 350 + 500 + 400 + 600 + 550 + 400 + 500 = 3300  
 Total exports of Company B = 500 + 400 + 600 + 800 + 900 + 700 + 700 = 4600  

$$\therefore \text{Required percentage} = \frac{3300 \times 100}{4600} = 71.73 \approx 72 \text{ (approx)}$$
16. (b) Export in the year 2003 = 400 thousand tonne  
 Export in the year 2004 = 600 thousand tonne  
 Required percentage =  $\frac{(600 - 400) \times 100}{400} = \frac{200 \times 100}{400} = 50\%$   

$$\therefore \text{Per cent rise in exports from the previous year was the maximum in 2004.}$$

17. (c) Average exports of Company B  

$$= \frac{500 + 400 + 600 + 800 + 900 + 700 + 700}{7} = \frac{4600}{7} = 657.14$$
18. (d) Total exports of the three companies in the year 2003 = 500 + 400 + 550 = 1450  
 Total exports of the three companies in the year 2006 = 550 + 900 + 600 = 2050  
 Required ratio = 1450 : 2050 = 29 : 41
19. (d) Income of company A in the year 2005 = ₹ 1354300  
 Profit of company A in the year 2005 = ₹ 600000  
 Required expenditure = 1354300 - 600000 = ₹ 754300
20. (e) Expenditure of company B in the year 2006 = 2211430  
 Profit of company B in the year 2006 = 400000  
 Required income = 2211430 + 400000 = ₹ 2611430
21. (c) Required average profit =  $\frac{(3 + 5 + 4 + 5 + 6 + 6)}{6}$  lakh  

$$= \frac{29}{6} \text{ lakh} = 483333 \approx 483000 \text{ (approx.)}$$
22. (a) Profit made by company A in the year 2002 = 5 lakh  
 Profit made by company A, B and C in the years 2002 = 5 + 3 + 8 = 16 lakh  
 Required percentage =  $\frac{5}{16} \times 100 = 31.25\%$
23. (b) Required percentage increase  

$$= \frac{8 - 7}{7} \times 100 = 14.28\% \approx 14\% \text{ (approx.)}$$
24. (d) Total value of the quantity sold for item D  

$$= \frac{40 \times 150}{100} \times \frac{12.5 \times 90}{100} \times 100 = 60 \times 11.25 \times 100 = ₹ 67500$$
25. (e) Average price per kg. of items A, B and C  

$$= \frac{(17.5 + 10 + 7.5)}{3} = \frac{35}{3} = ₹ 11.667 \approx 10.50 \text{ (approx)}$$
26. (a) Total value of quantity sold for item E = 15 × 25 × 100 = 37500  
 Total value of quantity sold for item F = 10 × 35 × 100 = 35000  
 Required ratio = 37500 : 35000 = 15 : 14
27. (e) Total value of the quantity sold for item C = 45 × 100 × 7.50 = 33750  
 Total value of the quantity sold for item E = 22.5 × 100 × 15 = 33750  

$$\therefore \text{Required percentage} = \frac{33750}{33750} \times 100 = 100\%$$
28. (d) Required price  

$$= 20 \times 100 \times \frac{120}{100} \times \frac{17.5 \times 120}{100} = 2400 \times 21 = ₹ 50400$$
29. (b) Profit earned by Company B in 2006 is 65% of investment or 812500.  

$$\therefore \text{Income} = \frac{812500}{65} \times 165 = 2062500$$
30. (c) Let the amount invested by Company A and B in the year 2005 be ₹x each. Income of A in 2005 = 1.70x  
 Income of B in 2005 = 1.55x  
 Ratio =  $\frac{A}{B} = \frac{1.70x}{1.55x} = \frac{34}{31}$

**SPEED TEST 27**

1. (c) Number of students in school Q in 2007 = 8000 and in year 2006 = 5500  
 Increase = 8000 - 5500 = 2500  

$$\% \text{ increase} = \frac{2500}{5500} \times 100 \approx 45\%$$
2. (b) Ratio =  $\frac{\text{Student qualified from School P in 2005}}{\text{Student qualified from School Q in 2008}}$   

$$= \frac{85}{90} = 17 : 18$$

3. (a) Students qualified in 2005 from both the schools together =  $(85 + 60) \times 100 = 145 \times 100 = 14500$   
 Total number of students qualified from school over all the years together =  $(60 + 55 + 80 + 90 + 75 + 85) \times 100 = 445 \times 100 = 44500$   
 Difference =  $44500 - 14500 = 30000$
4. (e) Total number of students, who qualified in the exam from school P over all the years together =  $(85 + 80 + 95 + 65 + 40 + 90) \times 100 = 455 \times 100 = 45500$   
 Total number of the students, who qualified in the exam from both the schools together in the 2006 and 2007 years together. =  $(80 + 55 + 95 + 80) \times 100 = 310 \times 100 = 31000$   
 Required percentage =  $\frac{45500}{31000} \times 100 \approx 147\%$
5. (b) Total number of students, who qualified in the exam over all the years from both the schools together =  $(85 + 60 + 80 + 55 + 95 + 80 + 65 + 90 + 40 + 75 + 90 + 85) \times 100 = 900 \times 100 = 90000$   
 $\therefore$  Required number of males =  $90000 \times \frac{60}{100} = 54000$   
 [Since females are 40%]
6. (e) Required number of people =  $25 + 15 = 40$  thousand
7. (a) Required percentage =  $\frac{10}{55} \times 100 = 18.18 \approx 18$  (approx.)
8. (b) Required ratio =  $15 : 10 = 3 : 2$
9. (d) Required percentage =  $\frac{55}{60} \times 100 = 91.666 = 91.67$
10. (e) Average number of people using mobile service M =  $\left( \frac{15 + 10 + 25 + 20 + 25 + 15}{6} \right)$  thousand  
 =  $\frac{110}{6}$  thousand =  $18333 \frac{1}{3}$
11. (c)  $\frac{(15 + 7.5 + 15 + 30 + 17.5) \times 1000}{5} = 17000$
12. (e) 2006 =  $10 + 7.5 + 15 = 32.5 \times 1000 = 32500$   
 2008 =  $25 + 30 + 20 = 75 \times 1000 = 75000$   
 Total production =  $32500 + 75000 = 107500$
13. (a)  $\frac{22.5}{25} = \frac{9}{10} = 9 : 10$
14. (a)  $(25 + 30) - 15 = 40 \times 1000 = 40000$
15. (d)  $15 : 30 : 15 = 1 : 2 : 2$
16. (d) Required percentage =  $\frac{31}{15} \times 100 = 206.67 \approx 207$  (approx.)
17. (c)  $A = 35000 \times \frac{18}{100} \times \frac{3}{10} = 1890$   
 $B = 35000 \times \frac{22}{100} \times \frac{11}{20} = 4235$   
 $C = 35000 \times \frac{31}{100} \times \frac{3}{5} = 6510$   
 $D = 35000 \times \frac{15}{100} \times \frac{2}{5} = 2100$   
 $E = 35000 \times \frac{14}{100} \times \frac{1}{4} = 1225$   
 Total number of males in all the organizations =  $1890 + 4235 + 6510 + 2100 + 1225 = 15960$
18. (b) Total number of males in organization A and C =  $35000 \left( \frac{18}{100} \times \frac{3}{10} + \frac{31}{100} \times \frac{3}{5} \right)$   
 =  $\frac{35000}{10000} (540 + 1860) = 3.5 \times 2400 = 8400$
19. (a) Number of females in organization B =  $\frac{35000 \times 22 \times 9}{100 \times 20} = 3465$   
 Number of females in organization E =  $\frac{35000 \times 14 \times 3}{100 \times 4} = 3675$   
 Required difference =  $3675 - 3465 = 210$

20. (e) Number of females in organization D =  $35000 \times \frac{15}{100} \times \frac{60}{100} = 3150$
21. (d) Total number of students studying in college H =  $51.2 + 40 + 36.5 = 127.7$  thousand  
 Total number of students studying in college K. =  $30 + 56 + 25 = 111$  thousand  
 Required difference =  $(127.7 - 111)$  thousand =  $16.7$  thousand =  $16700$
22. (b) Total number of students studying in all the colleges together =  $[(51.2 + 40 + 36.5) + (65 + 50 + 33) + (44 + 30 + 60) + (30 + 56 + 25)]$  thousand  
 $(127.7 + 148 + 134 + 111) = 520.7$  thousand =  $520700$
23. (c) Number of students from the faculty of science from college H and I together =  $40 + 50 = 90$   
 Number of students from the faculty of science from college J and K together =  $30 + 56 = 86$   
 Required ratio =  $\frac{90}{86} = \frac{45}{43} = 45 : 43$
24. (a) Number of students from the faculty of science from college I =  $50$   
 Total number of students from college I =  $65 + 50 + 33 = 148$   
 Required percentage =  $\frac{50}{148} \times 100 = 33.78\% \approx 34\%$  (approx.)
25. (e) Average number of students from the faculty of commerce from all the colleges together. =  $\frac{(36.5 + 33 + 60 + 25)}{4}$  thousand  
 =  $\frac{154.4}{4}$  thousand =  $38.625$  thousand =  $38625$
26. (d) Total number of students studying B.Sc. in all the colleges together =  $350 + 325 + 300 + 375 + 425 = 1775$
27. (c) Total number of students studying B.Sc. in the colleges C and E together =  $300 + 425 = 725$   
 Total number of students studying B. A. in the colleges A and B together =  $275 + 300 = 575$   
 $\therefore$  Required ratio =  $\frac{725}{575} = 29 : 23$
28. (a) Total number of students studying B.Sc. in all the colleges together =  $350 + 325 + 300 + 375 + 425 = 1775$   
 Total number of students studying B.A. in all the colleges together =  $275 + 300 + 325 + 450 + 325 = 1675$   
 Total number of students studying B.com in all the colleges together =  $425 + 475 + 325 + 425 + 225 = 1875$   
 $\therefore$  Required ratio = B.Sc. : B.A. : B.Com. =  $1775 : 1675 : 1875 = 71 : 67 : 75$
29. (e) Number of students studying B.Com. in college C =  $325$   
 Number of students studying B.Com. in all the colleges together =  $\frac{325 \times 100}{1875} = 17$  (approx.)
30. (b) Number of students studying B.A. in college B =  $300$   
 Total number of students studying B.A., B.Sc. and B.Com. in college B. =  $300 + 325 + 475 = 1100$   
 $\therefore$  Required percentage =  $\frac{300 \times 100}{1100} = 27.27$

**SPEED TEST 28**

1. (a) Required percentage =  $\frac{2000 \times \left( 1 - \frac{5}{7} \right) \times \frac{14}{100}}{2000 \times \frac{7}{100}} \times 100 = \frac{2000 \times \frac{2}{7} \times \frac{14}{100}}{140} \times 100$   
 =  $\frac{80}{140} \times 100 \approx 57\%$

2. (d) Total number of teachers who teach English and History together =  $2000 \times \frac{(7+27)}{100} = 680$   
Total number of teachers who teach Mathematics and Biology together =  $2000 \times \frac{(14+12)}{100} = 520$   
Required difference =  $680 - 520 = 160$
3. (e) Total number of Biology and History teachers =  $\left(2000 \times \frac{12}{100} \times \frac{100+40}{100}\right) + \left(2000 \times \frac{27}{100} \times \frac{100-20}{100}\right)$   
=  $\left(2000 \times \frac{12}{100} \times \frac{140}{100}\right) + \left(2000 \times \frac{27}{100} \times \frac{80}{100}\right)$   
=  $336 + 432 = 768$
4. (b) Required average =  $\frac{2000 \times (25+27+12)}{3} = \frac{1280}{3} \approx 420$
5. (d) Required ratio =  $\frac{12 \times 2000}{15 \times 2000} = \frac{12}{15} = 4:3$
6. (b) Number of boys in management =  $3500 \times \frac{16}{100} - 1500 \times \frac{12}{100} = 560 - 180 = 380$   
Number of boys in IT =  $3500 \times \frac{20}{100} - 1500 \times \frac{18}{100} = 700 - 270 = 430$   
 $\therefore$  Total number of boys in both =  $380 + 430 = 810$
7. (c) Number of girls in Art =  $1500 \times \frac{38}{100} = 570$   
Number of boys in Science =  $3500 \times \frac{22}{100} - 1500 \times \frac{11}{100} = 770 - 165 = 605$   
 $\therefore$  Required ratio =  $570 : 605 = 114 : 121$
8. (d) Total number of girls in Science and Commerce together =  $1500 \times \frac{(21+11)}{100} = 480$
9. (a) Number of girls in Science =  $1500 \times \frac{11}{100} = 165$   
20% girls from Science merged into Management then the number of students.  
=  $3500 \times \frac{16}{100} + 165 \times \frac{20}{100} = 560 + 33 = 593$
10. (e) Total number of girls in Arts, Science and Commerce together =  $1500 \times \frac{(38+11+21)}{100} = 1050$   
Required percentage =  $\frac{1050 \times 100}{3500} = 30\%$
11. (d) Average number of players who play football and rugby together =  $\frac{4200 \times \frac{17+13}{100}}{2} = 630$
12. (a) Female players who plays lawn tennis =  $2000 \times \frac{22}{100} = 440$   
Male players who plays rugby =  $4200 \times \frac{13}{100} - 2000 \times \frac{10}{100} = 546 - 200 = 346$   
Difference =  $440 - 346 = 94$
13. (c) Female players who plays cricket =  $2000 \times \frac{40}{100} = 800$   
Male players who plays hockey =  $4200 \times \frac{10}{100} - 2000 \times \frac{15}{100} = 420 - 300 = 120$   
Ratio =  $\frac{800}{120} = 20:3$
14. (b) Number of male players who plays football, cricket and lawn tennis =  $4200 \times \frac{17+35+25}{100} - 2000 \times \frac{13+40+22}{100}$   
=  $3234 - 1500 = 1734$
15. (a) Male players who plays rugby =  $4200 \times \frac{13}{100} - 2000 \times \frac{10}{100} = 546 - 200 = 346$   
Total number of players play lawn tennis =  $4200 \times \frac{25}{100} = 1050$   
Required percentage =  $\frac{346}{1050} \times 100 \approx 33\%$
16. (b) Number of promoted employees in HR department =  $1200 \times 0.11 = 132$   
Number of working employees in HR department =  $3600 \times 0.12 = 432$   
So, required percentage =  $\frac{132}{432} \times 100 = 30.56$
17. (d) Number of promoted employees in all departments = 1200  
Number of working employees in all departments = 3600  
So, required percentage =  $\frac{1200}{3600} \times 100 = 33$
18. (c) Number of working employees in production and marketing =  $3600 \times (0.35 + 0.18) = 1908$   
Number of male employees in production and marketing =  $2040 \times (0.50 + 0.15) = 1326$   
So, the number of female employees in production and marketing =  $1908 - 1326 = 582$
19. (e) Number of promoted employees in IT department =  $1200 \times 0.26 = 312$   
Number of promoted male employees in HR department = 156  
Number of working male employees in IT department =  $2040 \times 0.20 = 408$   
So, required percentage =  $\frac{156}{408} \times 100 \approx 38$
20. (a) Number of working employees in accounts department =  $3600 \times (0.20) = 720$   
Number of male employees in accounts department =  $2040 \times (0.05) = 102$   
So, number of working females in accounts department =  $720 - 120 = 618$
21. (e) Number of candidates selected from agriculture discipline =  $7390 \times \frac{7}{100} = 517.3$   
Number of candidates selected from Engineering discipline =  $7390 \times \frac{11}{100} = 812.9$   
Required difference =  $812.9 - 517.3 = 295.6 \approx 296$  (approx.)



22. (c) Science  $\Rightarrow \frac{25780 \times 28}{100} - \frac{7390 \times 32}{100}$   
 $= 7218 - 2365 = 4853$   
 Engineering  
 $\Rightarrow \frac{25780 \times 16}{100} - \frac{7390 \times 11}{100} = 4124 - 813 = 3311$   
 Commerce  $\Rightarrow \frac{25780 \times 18}{100} - \frac{7390 \times 16}{100}$   
 $= 4640 - 1182 = 3458$   
 Management  $\Rightarrow \frac{25780 \times 12}{100} - \frac{7390 \times 20}{100}$   
 $= 3093 - 1478 = 1615$   
 Hence, the difference is maximum in science discipline.

23. (b) Required percentage =  $\frac{24}{16} \times 100 = 150$

24. (a) Total number of candidates selected from commerce and agriculture discipline.

$$= 7390 \text{ of } 23\% = \frac{23 \times 7390}{100} = 1699.70 \approx 1700 \text{ (approx.)}$$

25. (b) Required ratio =  $\frac{25780 \times 12}{100} : \frac{7390 \times 11}{100} = 3094 : 813$

26. (d) Number of working men in Marketing department

$$= 1800 \times \frac{18}{100} \times \frac{7}{715} = 189$$

27. (b)  $\frac{1800 \times \frac{28}{100} \times \frac{11}{11+1}}{1800 \times \frac{28}{100}} \times 100 = \frac{462}{504} \times 100 = 91.67\%$

28. (c)  $\frac{1800 \times \frac{17}{100} \times \frac{2}{2+7}}{1800 \times \frac{17}{100}} = \frac{68}{306} = \frac{2}{9} = 2 : 9$

29. (a)  $\frac{1800 \times \frac{14}{100} \times \frac{3}{4}}{1800 \times \frac{14}{100}} = \frac{189}{252} = \frac{3}{4} = 3 : 4$

30. (e)  $\frac{1800 \times \frac{23}{100} \times \frac{4}{9}}{1800} \times 100 = 10\% \text{ (approx.)}$

### SPEED TEST 29

1. (e) Required difference =  $680 - 258 = 422$

2. (b) Required percentage =  $\frac{550 - 430}{430} \times 100 \approx 27\%$

3. (b) Required average =  $\frac{160 + 708 + 550 + 586}{4} = 501$

4. (a) Number of flights cancelled by airline R in 2010 due to technical fault =  $\frac{880 \times 60}{100} = 528$

5. (e) Required percentage =  $\frac{(600 + 546)}{365} \times 100$

$$= \frac{1146}{365} \times 100 = 314 \text{ (approx.)}$$

6. (b) Total number of soldiers retired from Air Force in the years 2006, 2007 and 2008 =  $2.9 + 5.4 + 4.2 = 12.5$

Number of soldiers retired from Army in the year 2009

=  $8.4$  Difference =  $12.5 - 8.4 = 4.1$  thousands =  $4100$

7. (c) Total number of soldiers retired from BSF in the years 2005 and 2006 =  $5.1 + 3.7 = 8.8$

Total number of soldiers retired from Navy over all the years together

=  $1.6 + 1.9 + 2.4 + 2.8 + 1.5 + 3.5 = 13.7$

Required per cent =  $\frac{8.8}{13.7} \times 100 \approx 64\%$

8. (a) Total number of soldiers retired in the year 2007

=  $(5.4 + 7.2 + 2.8 + 2.7 + 5.2) \times 1000$

=  $23300 \therefore \text{Average} = \frac{23300}{5} = 4660$

9. (e)

10. (d) Required ratio =  $\frac{5.2}{1.2} = 13 : 3$

11. (a) Required percentage =  $\frac{980 \times \frac{80}{100}}{2200 \times \frac{74}{100}} \times 100$

$$= \frac{784}{1628} \times 100 \approx 48\%$$

12. (d) Required ratio =  $\frac{1500 \times \frac{14}{100}}{1200 \times \frac{28}{100}} = \frac{210}{336} = 5 : 8$

13. (e) Required average =  $\frac{1500 + 3000 + 1200}{3} = 1900$

14. (c) Required difference

$$= \left( 2200 \times \frac{74}{100} + 3000 \times \frac{93}{100} \right) - \left( \frac{2200 \times 26}{100} + \frac{3000 \times 17}{100} \right)$$

$$= (1628 + 2490) - (572 + 510) = 4118 - 1082 = 3036$$

15. (b) Total number of candidates qualifying in

bank K, L and M =  $\frac{980 \times 20}{100} + \frac{1200 \times 28}{100} + \frac{2500 \times 21}{100}$

=  $196 + 336 + 525 = 1057$

16. (e)  $(9.65 + 2.75 + 5.42) \times 1000 = 17820$

17. (b)  $\left( \frac{7.50 + 8.55 + 11.40 + 17.80 + 9}{5} \right) 1000 = 10850$

Hence, the difference is maximum in science discipline.

18. (a) Monthly expenditure of A

=  $12.5 + 7.5 + 6.52 + 3.3 + 4.72 = 34.54$

Monthly expenditure of B

=  $16 + 8.55 + 8.38 + 2.75 + 5.86 = 41.54$

Monthly expenditure of C

=  $13.8 + 11.4 + 12.6 + 6.3 + 9.3 = 53.4$

Monthly expenditure of D

=  $9.65 + 17.8 + 9.95 + 8.4 + 7.85 = 53.65$

Monthly expenditure of E

=  $14.5 + 9 + 10.25 + 3.9 + 5.42 = 43.07$

19. (a) Monthly expenditure of C on children's education

=  $12.60 \times 1000 = 12600$

Yearly expenditure after increased by 5%

$$= \left( 12600 \times \frac{105}{100} \right) \times 12 = 158760$$

20. (d)  $\frac{4.72}{8.40} = 59 : 105$

SPEED TEST 30

21. (d) Marks obtained by C (in percentage)  

$$100 \times \frac{75}{100} + 100 \times \frac{56}{100} + 150 \times \frac{72}{100}$$

$$+ 60 \times \frac{75}{100} + 150 \times \frac{75}{100} + 40 \times \frac{80}{100}$$

$$= \frac{75 + 56 + 108 + 45 + 112.5 + 32}{6}$$

$$= \frac{428.5}{6} = 71.41\% \approx 71\%$$
22. (a) Marks obtained by B in Maths and English  
 $= 100 \times \frac{88}{100} + 150 \times \frac{80}{100} = 88 + 132 = 220$   
 Marks obtained by F in maths and english  
 $= 100 \times \frac{85}{100} + 150 \times \frac{74}{100} = 88 + 111 = 196$   
 Difference =  $220 - 196 = 24$
23. (c) Marks obtained by E in Geography =  $40 \times \frac{75}{100} = 30$   
 Marks obtained by E in Hindi =  $100 \times \frac{60}{100} = 60$   
 $60 \times x\% = 30 \Rightarrow x = 50\%$
24. (b) Marks obtained by D in History =  $60 \times \frac{80}{100} = 48$   
 and Geography  $40 \times \frac{62}{100} = 24.8$   
 Total marks obtained  $48 + 24.8 = 72.8$   
 Total marks =  $60 + 40 = 100$   
 Percentage marks =  $\frac{72.8}{100} \times 100 = 72.8\%$
25. (e) Average marks of all students in Science  

$$150 \times \frac{82}{100} + 150 \times \frac{85}{100} + 150 \times \frac{72}{100} +$$

$$150 \times \frac{80}{100} + 150 \times \frac{68}{100} + 150 \times \frac{90}{100}$$

$$= \frac{150 \left( \frac{82}{100} + \frac{85}{100} + \frac{72}{100} + \frac{80}{100} + \frac{68}{100} + \frac{90}{100} \right)}{6}$$

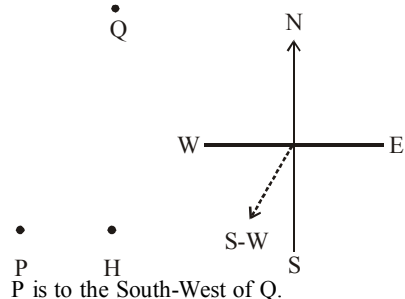
$$= \frac{477 \times 150}{600} = 119.25$$
26. (d) Total amount earned by store C through the sales of M and O type products together  
 $= (57 \times 5.6 + 48 \times 50)$  thousand  
 $= (319.2 + 2400)$  thousand  
 $= 27.192$  lakh
27. (e) Number of L type product sold by store F = 48  
 Number of L type product sold by store E = 40  
 $\therefore$  Required percentage =  $\frac{48}{40} \times 100 = 120$
28. (a) Required difference  
 $= (60 \times 75 - 44 \times 15)$  thousand  
 $= (4500 - 660)$  thousand  
 $= 38.4$  lakh
29. (e) Required ratio =  $(61 + 54) : (54 + 48) = 115 : 102$
30. (b) Required average  

$$= \left( \frac{16 + 15 + 14.5 + 15.6 + 18.2 + 14.9}{6} \right)$$
 thousand  

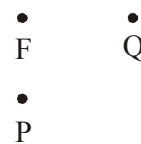
$$= \left( \frac{94.2}{6} \right)$$
 thousand = ₹ 15700

1. (c) Age of C = Total age - age of (A + B + D + E)  
 $=$  Total age -  $2 \times$  Average ages of (A + B) -  $2 \times$  Average ages of (D + E)

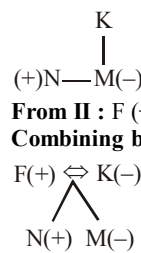
2. (c) **From I**



**From II**



3. (e) **From I :**



4. (e) **Statement II:**

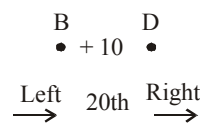
Rani's age = x yrs.  
 $\Rightarrow 2x + x = 72 \Rightarrow 3x = 72 \Rightarrow x = 24$  yrs.  
 Using this with **Statement I**, we get

Age of Nidhi = 3 times younger than Rani's age =  $\frac{24}{3} = 8$  yrs.  
 $\therefore$  Both statements I and II are Sufficient.

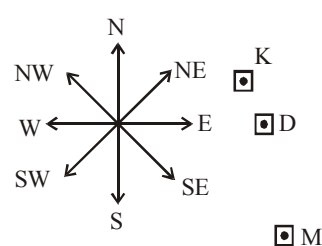
5. (a)

6. (e) Since the ages of none of them is given, no conclusion can be drawn through both the statements.

7. (d) **From both the statements:**



8. (e) **From both the statements:**



Clearly, Town M is towards South-East direction of Town K.  
 9. (d) From both the statements K, M and T are siblings of P.

10. (c) **From I.** M  
P T  
Thus, it can be found that M is to the north-west of T. So, I alone is sufficient to answer the question.

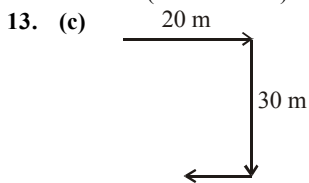
**From II.** M K  
T  
Thus, it can be deduced that M is to the north-west of T. So, II alone is also sufficient to answer the question. Thus, the answer can be found by using either of the statements alone.

11. (e) **From I.** It is clear that K, D and R are siblings while K and D are females. But no relation can be found between D and M.

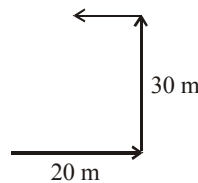
**From II.** It can be found that R's father is certainly the father of K and D as well. Since M is married to R's father, it means M is the mother of R.

Thus, after combining I and II, we can definitely say that M is the mother of D. So, both statements I and II are required to answer.

12. (e) D's position = 15th from right  
∴ R's position = (15 - 10 =) 5th from right  
= (40 - 5 + 1 =) 36th from left

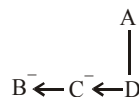


D was facing East when he started his journey, from statement I.

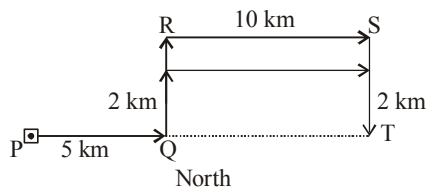


D was facing East when he started his journey, from statement II.

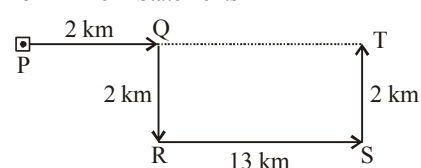
14. (d) From statement I and II.



15. (e) From Statement I



Required distance = PT = PQ + QT = (5 + 10) km  
= 15 km From Statements II



Require distance = PT = PQ + QT = (2 + 13) km = 15 km

16. (e) From the both statements

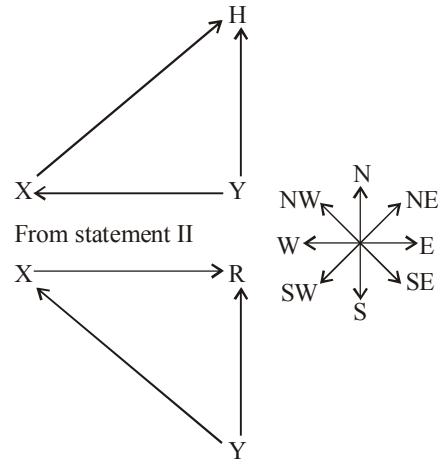


There are 21 students between R and S.

17. (d) From the the statements

Suneeta has two children. However, she may have more sons.

18. (c) From Statement I



19. (e)

20. (a)

**SPEED TEST 31**

1. (b) **From I:** Na Si La Lo= you may go now ... (i)  
Ne Si Na Pe = he may go there ... (ii)  
From (i) and (ii), Na Si = may go ... (iii)  
Using (iii) in (ii), Ne Pe = he there  
Hence Pe = he or there  
**From II:** Ki se Pe Bo = come there and see ... (i)  
Se Ni Bo Ki = come here and see ... (ii)  
From (i) and (ii), Ki Se Bo = come and see ... (iii)  
Using (iii) in (i), Pe = there
2. (a) **From I:** N is the 2nd youngest. Q, O and M are older than N. Hence, the remaining person P is the youngest.
3. (e) 'to', which is not common between the two codes, stands for 'walks'.
4. (e) **From I:** Divya was born in July or August.  
**From II:** She was born in April, May, June or July  
**From I & II both:** She was born in July.
5. (e) From I and the statement we get the code for 'red'. Using II, we get the code for 'roses' and 'lovely'. Using both together, the only word remaining in the statement is 'those' and so its code can be easily found.
6. (d) Statement I gives us the two tallest persons. Hence it is not sufficient.  
From II, either D or F is the shortest. Hence II is also not sufficient.
7. (a) **Statement I**  
you must see = la pa ni ... (i)  
did you see = jo ni pa ... (ii)  
From (i) and (ii), you see = pa ni ... (iii)  
Using (iii) in (i), we get must = la.  
Hence I alone is sufficient.  
But II is not even remotely connected with 'must'.
8. (e) **From I:** Arti's birthday falls on Thu, Fri or Sat.  
**From II:** It falls on Sat, Sun or Mon.  
Combining I and II, it falls on Sat.
9. (d) **From I:** he is sure = ja ha ma  
**From II:** is she sure = ka ja ma  
Combining the two, we get is sure = ja ma  
Hence, sure = ja or ma

10. (b) **From I:** P is the oldest and Q second oldest.  
**From II:** R is the youngest and S second youngest.
11. (a) **From I:** Saurav visited Delhi on Wednesday.  
**From II:** He visited on Tue, Wed or Thu.
12. (b) From Statement II : Arun left for London on Friday – 2 = Wednesday
13. (e) From both the Statements :  
 new good clother  $\Rightarrow$  539  
 good clothes are costly  $\Rightarrow$  9673  
 From (i) and (ii), code for 'new' is '5':
14. (d) **From I.** Possible dates of brithday of Mohan's mother are 13th, 14th, 15th, 16th or 17th of July.  
**From II.** Possible dates of birthday of Mohan's mother are 16th, 17th or 18th of July.  
 Thus, II alone is also not sufficient to answer the question. Now, even after combining I and III, it is found that Mohan's mother's brithday is either on 16th or 17th July.  
 Thus, the answer cannot be found even after combining both the statements. Hence, option (d) follows.
15. (b) **From I.** go near the tree  $\rightarrow$  sa na pa ta  
 Thus, code for 'near' cannot be found.  
**From II.** tree is near home  $\rightarrow$  ja pa da sa  
 Again,code for 'near' cannot be found.  
 After combining I and II, it is found that the code for 'nera' can be either 'sa' or 'pa'.  
 Thus, the answer cannot be fond even after combining both the statements.
16. (b) **From I.**  $- > D > - - -$  is obtained if all of them are arranged in descending order of the marks scored.  
 But we cannot say who among them scored the lowest marks.  
**From II.** It is clear that E has scored the lowest marks.  
 Thus, II alone is sufficient to answer to the question.
17. (d) jump and **play**  $\rightarrow$  3 5 7.  
**Play** for now  $\rightarrow$  5 9 8.  
 Cannot find the code for 'jump'
18. (b) **From I:** P is the shortest and T second shortes. Of rest, we don't know.  
**From II:** R is the tallest and S the second tallest.
19. (e) From both the statements Meena's birthday may be on 28th.
20. (d) From both the statements  
 sa ka **ho**  $\rightarrow$  water satisfies thirst  
 be **ho** na  $\rightarrow$  **water** is blue  
 The meaning of 'be' is either 'blue' or 'is'.
21. (b) From statement I  
 P, S, T  $>$  R  $>$  Q  
 From statement II  
 P  $>$  S  $>$  Q, R, T
22. (e) From both the statements  
 boy is **brave**  $\rightarrow$  ha **ka** to  
**brave** and clever  $\rightarrow$  na pe **ka**
23. (e) From statement I  
 Rank of Shamika from the bottom = 21st  
 $\therefore$  Total number of chidren = 13 + 21 - 1 = 33  
 From statement II  
 Rank of Rajesh from the bottom = 18th  
 $\therefore$  Total number of children = 16 + 18 - 1 = 33
24. (d) From both the statements  $T > R, \leftarrow \frac{V}{P}$
25. (c) From statement I  
 buy **your** own book  $\rightarrow$  **ta** na pi la  
 do try your best  $\rightarrow$  sa jo **ta** be  
 From statement II  
 please submit **your** reports  $\rightarrow$  ka si do **ta**  
**your** house is grand  $\rightarrow$  fi **ta** go hi

26. (d) From both the statements  
 when **you** will **come**  $\rightarrow$  do na **pa** ka  
 can **you come** back  $\rightarrow$  sa **pa** ka ho
27. (a) From statements I  
 W's birthday was on 14th March.
28. (a) **From statements I :**  
 never **do this**  $\rightarrow$  pa **da** na  
**do this** again  $\rightarrow$  na **ka** **da**  
 $\therefore$  never  $\Rightarrow$  pa
29. (d) **From both the statements :**  
 S  $>$  Q, R  $>$  P, T
30. (d) No answer can be found even with the data in Statements I and II together.

**SPEED TEST 32**

1. (d)  $?$  =  $\frac{58^2 \times 48^2}{2152.96} = \frac{4 \times 29^2 \times 9 \times 16^2}{29 \times 29 \times 2.56}$   
 $= \frac{36 \times 16^2}{2.56} = 36 \times 100 = 3600$   
**Note:** For the above question, we should use the approach of approximation. We see that  $48^2$  is approximately 2300, so if we consider  $48^2$  divided by 2152.96 equal to 1 then the approximate value of ? is  $58^2 \approx 3400$ . And the nearest value in given choices is 3600. So our answer should be (d).
2. (c)  $?$  =  $7432 \div 92.4 \times 18.25 = 80 \times 18.5 = 1480$
3. (a)  $\sqrt[3]{?} = 99 \times 21 - 1968 = 111 \therefore ? = (111)^3 = 1367631$
4. (e)  $9634 \times \frac{3}{8} \div ? = 28.902 \quad ? = \frac{3612.75}{28.902} = 125$
5. (b)
6. (a) Approx value =  $5555 \div 50 = 111.1 \approx 110$
7. (a) Approx value =  $(18)^3 = 5832 \approx 5830$
8. (e)  $\Rightarrow 95^? = 95^{3.7} \div 95^{1.0}$   
 $\Rightarrow 95^? = 95^{3.7-1} = 95^{2.7} \Rightarrow ? = 2.7$
9. (b)  $?$  =  $\sqrt{10000} + \frac{3}{5} \times 1892 = 100 + 1135.2 = 1235.2 \approx 1230$
10. (c)  $\approx \frac{0.0004}{0.0001} \times 36 = 4 \times 36 = 144 \approx 145$
11. (c) Total number of obese men in 2007 =  $66000 \times 35\% = 23100$   
 Total number of obese women in 2007 =  $54000 \times 35\% = 13500$   
 Total number of obese children in 2007 =  $16000 \times 12.5\% = 2000$   
 Required average =  $(32100 + 13500 + 2000) \div 3 = 38600 \div 3 \approx 12867$
12. (b) Required percentage =  $\frac{78000 \times 37.5\%}{78000 \times 62.5\%} \times 100 = 60\%$
13. (d) Required ratio =  $\frac{60000 \times 20\%}{70000 \times 27.5\%} = 48 : 77$
14. (a) No. of obese women in 2006 =  $20\%$  of 60000 = 12000  
 Number of obese children in 2006 =  $25\%$  of 12000 = 3000  
 Number of obese men in 2006 =  $32.5\%$  of 63000 = 20475  
 Required difference =  $20475 - (12000 + 3000) = 20475 - 15000 = 5475$

15. (d) Number of children not suffering from obesity in 2005 = 90% of 21000 = 18900  
Total of these two equals of 31650.

16. (c) 3 girls can be seated in a row in 3! ways. Now, in the 4 gaps 4 boys can be seated in 4! ways. Hence, the number of ways in which no two boys sit adjacent to each other.  
= 3! + 4! = 6 × 24 = 144

17. (b) Let the amount invested in scheme A be ₹ x.

$$\therefore \frac{x \times 12 \times 2}{100} = 3600 \Rightarrow x = \frac{3600 \times 100}{24} = ₹ 15000$$

Total investment = ₹ 35,000

$$\therefore \text{Amount invested in scheme B} = ₹ (35000 - 15000) = ₹ 20000$$

$$\therefore C.I = P \left[ \left( 1 + \frac{R}{100} \right)^T - 1 \right] = 2000 \left[ 1 + \frac{10^2}{100} - 1 \right] = 20000 (1.21 - 1) = 2000 \times 0.21 = ₹ 4200$$

18. (b) In 36 days 12 men can do 1 complete work.

In 36 days 12 women can do  $\frac{3}{4}$ th of the work.

Since time and the no. of persons is the same in both cases.

1 woman's daily work =  $\frac{3}{4}$ th of 1 man's daily work

8 women's daily work =  $\frac{3}{4} \times 8 = 6$  men's daily work

(10 men + 8 womens daily work) = (10 men + 6 men) = 16 men's daily work

12 men can do the work in 36 days

$\therefore$  16 men can do the work in  $36 \times \frac{12}{16} = 27$  days.

19. (c) Mixture : 2 kg of rice at ₹15/kg + 3 kg of rice at ₹.13/kg.

Total weight = 2 + 3 = 5 kg

Total cost price = (2 × 15) + (3 × 13) = 30 + 39 = ₹ 69

Cost price per kg of the mixture =  $\frac{69}{5} = ₹ 13.80$

Selling price to get  $33\frac{1}{3}\%$  profit

$$= \frac{100 + 33\frac{1}{3}}{100} \times ₹ 13.80 = \frac{400}{3 \times 100} \times ₹ 13.80$$

$$= \frac{4}{3} \times ₹ 13.80 = ₹ 18.40$$

20. (d) Total Time = 6 hours

Speed of the boat in still water = 4 km/hr.

Let the distance between M and N be D.

and the speed of the stream be x.

$$D \left[ \frac{1}{4+x} + \frac{1}{4-x} \right] = 6 \text{ or } D \left[ \frac{4-x+4+x}{(x+x)(4-x)} \right] = 6$$

$$D \left[ \frac{8}{4^2 - x^2} \right] = 6 \text{ or } \frac{8D}{16 - x^2} = 6$$

$$D = \frac{6}{8} (16 - x^2) = \frac{3}{4} (16 - x^2)$$

Since the speed of the stream (x) is not given, the distance D cannot be determined.

21. (a) Ratio =  $12 \times \frac{7}{12} : 6 \times \frac{2}{3} = 7 : 4$

22. (c) 4% of 2500 = 100

23. (d) Ratio =  $\left( 16 \times \frac{5}{8} + 15 \times \frac{7}{5} \right) : \left( 16 \times \frac{3}{8} + 15 \times \frac{8}{15} \right) = 17 : 14$

24. (d)  $\frac{3}{8} \times 16 \times 25 = 150$

25. (b)  $2500 \times \frac{11}{100} \left[ \frac{6}{11} - \frac{5}{11} \right]$

(26-30): Distribution of officers in different categories is as follows:

Pub.	Pub.	Pri.	Pri.	Pub.
R <sub>u</sub>	U <sub>r</sub>	R <sub>u</sub>	U <sub>r</sub>	(R <sub>u</sub> + U <sub>r</sub> )
450	3750	300	1800	3600
Pub. + Pri (R <sub>u</sub> )		Pub. + Pri (U <sub>r</sub> )		
600		2250		

26. (b)

27. (d) Total number of candidates.  
= 450 + 3750 + 3600 + 600 + 2250 = 10650

28. (b) Reqd ratio  $\frac{450}{300} = \frac{3}{2}$

Required ratio = 300 + 450 = 2 : 3

29. (c) Required number of candidates working in Private Sector Banks in Urban Areas only  
= 1800 + 2250 = 4050

30. (e) Number of candidate having no prior experience of working in banking sector  
= 15000 - (450 + 3750 + 300 + 1800 + 3600 + 600 + 2250)  
= 15000 - 12750 = 2250

31. (a)  $SI = P \left[ \left( 1 + \frac{r}{100} \right)^t - 1 \right]$

$$594.5 = 5800 \left[ \left( 1 + \frac{r}{100} \right)^2 - 1 \right]$$

$$\Rightarrow \frac{594.5}{5800} + 1 = \left( 1 + \frac{r}{100} \right)^2$$

$$\Rightarrow \frac{6394.5}{5800} = \left( 1 + \frac{r}{100} \right)^2 \Rightarrow \frac{r}{100}$$

$$= 1.05 - 1 \Rightarrow \frac{r}{100} = 0.05 \Rightarrow r = 5\%$$

32. (c) The original fraction

$$= \frac{25}{51} \times \frac{(350+100)}{150+100} = \frac{25}{51} \times \frac{45}{25} = \frac{15}{17}$$

33. (d) Required number of ways =  $\frac{7!}{2!} = 2520$

34. (b) Required per cent profit

$$= \frac{348000 - 2500}{250000} \times 100 = \frac{98000}{250000} \times 100 = 39.2\%$$

35. (e) Let the number of parrots be p and the number of tigers be t.

Then p + t = 858 ... (i)

2p + 4t = 1846 ... (ii)

After rearranging equation (ii), we get

p + 2t = 923 ... (iii)

Solving (i) & (iii) we get t = 65 & p = 793

36. (e) Sale<sub>A-1992</sub> = 80000 × 0.75 = 60000,

Sale<sub>A-1993</sub> = 90000 × 0.64 = 57600  $\therefore$  % rise = 4%

37. (c) % rise =  $\frac{84 - 65}{65} \times 100 = \frac{1900}{65} = 29.23\%$

38. (b)  $\text{Sale}_{A-1994} = 81000 \times 0.84 = 68040,$   
 $\text{Sale}_{A-1993} = 90000 \times 0.64 = 57600$   
 $\therefore \text{Reqd \%} = \frac{(68040 - 57600)}{57600} \times 100 = 18.125\%$

39. (b)  $\text{Sale}_{B-1995} = 72000 \times 0.72 = 51840$  Profit<sub>A-1993</sub> = 90000  
 $\therefore \text{Reqd \%} = \frac{51840}{90000} \times 100 = 57.6\%$

40. (d)  $\text{Avg}_A = \frac{64 + 60 + 80 + 90 + 81 + 48}{6}$   
 $= \frac{423}{6} = 70.5$  thousand = 70500  
 $\text{Sale}_B = 96000 \times 0.7 = 67200 \therefore \text{Ratio} = \frac{705}{672} = \frac{235}{224}$

41. (c) Let the fraction be  $\frac{x}{y}$   
 After the respective increase in N<sup>r</sup> and D<sup>r</sup>,  
 $\frac{\frac{6}{5}x}{\frac{5}{4}y} = \frac{6}{5} \times \frac{4}{5} \times \frac{x}{y} = \frac{24x}{25y} \therefore \frac{24x}{25y} = \frac{3}{5}$   
 $\Rightarrow \frac{x}{y} = \frac{3}{5} \times \frac{25}{24} = \frac{5}{8} \therefore \text{Original fraction} = \frac{5}{8}$

42. (d) Total weight of the mixture = 40 + 25 = 65 kg  
 Total cost price of wheat = ₹ (40 × 12.50 + 25 × 15.10)  
 = ₹ (500 + 377.50) = ₹ 877.50  
 Total selling price of wheat  
 = ₹  $\frac{877.50 \times 110}{100} = ₹ 965.25$   
 $\therefore \text{SP per kg} = ₹ \frac{965.25}{65} = ₹ 14.85$

43. (a) A team of 5 children, consisting of at least two girls can be formed in following ways :

- I. Selecting 2 girls out of 4 and 3 boys out of 5. This can be done in  ${}^4C_2 \times {}^5C_3$  ways.
- II. Selecting 3 girls out of 4 and 2 boys out of 5. This can be done in  ${}^4C_3 \times {}^5C_2$  ways.
- III. Selecting 4 girls out of 4 and 1 boy out of 5. This can be done in  ${}^4C_4 \times {}^5C_1$  ways.

Since the team is formed in each case, therefore, by the fundamental principle of addition, the total number of ways of forming the team.

$$= {}^4C_2 \times {}^5C_3 + {}^4C_3 \times {}^5C_2 + {}^4C_4 + {}^5C_1$$

$$= \frac{4 \times 3}{1 \times 2} \times \frac{5 \times 4 \times 3}{1 \times 2 \times 3} + \frac{4 \times 3 \times 2}{1 \times 2 \times 3} \times \frac{5 \times 4}{1 \times 2} + 1 \times 5$$

$$= 60 + 40 + 5 = 105$$

44. (b)  $\text{SI} = \frac{15000 \times 9 \times 2}{100} = ₹ 2700$   
 $\text{CI} = 12000 \left[ \left( 1 + \frac{8}{100} \right)^2 - 1 \right] = 12000 \left[ \left( \frac{27}{25} \right)^2 - 1 \right]$   
 $= 12000 \left[ \frac{729 - 625}{625} \right] = 12000 \times \frac{104}{625} = ₹ 1996.8$   
 $\therefore \text{Total earned interest} = ₹ (2700 + 1996.8) = ₹ 4696.8$

45. (c) Total equivalent capital of A for 1 month  
 = 5x × 12 + 8x × 12 = ₹ 156x  
 Total equivalent capital of B for 1 month  
 = 6x × 24 = ₹ 144x  
 Total equivalent capital of C for 1 month  
 = 8x × 12 + 4x × 112 = ₹ 144x  
 $\therefore \text{Required ratio} = A : B : C$   
 = 156x : 144x : 144x = 13 : 12 : 12

46. (d) We need equivalence between one day's work of man and woman.  
 From statement I, we can get 1 man's 1 day's work.  
 From statement II or III, we can get 1 woman's 1 day's work.  
 Hence, we can establish relation between man's and woman's work and get the required answer.

47. (e) When a train crosses a pole, then Speed of train  
 $= \frac{\text{Length of train}}{\text{Time taken}}$   
 When a train crosses a platform, then Speed of train  
 $= \frac{\text{Length of platform and train}}{\text{Time}}$

Clearly, statement II and either I or III supplement the required data to determine the speed of train.

48. (e) Area of the square = (side)<sup>2</sup> =  $\frac{1}{2}(\text{diagonal})^2$   
 Again, Perimeter = 4 × side  
 Clearly, from any one of the three statements we can determine area of the square.

49. (c) Let the number be 10x + y.  
 From statement I, (10y + x) - (10x + y) = 18  
 $\Rightarrow 9(y - x) = 18 \Rightarrow y - x = 2 \dots \text{(i)}$   
 From statement II, x + y = 14  $\dots \text{(ii)}$   
 From statement III, y - x = 2  $\dots \text{(iii)}$   
 Clearly, statement II and either I or III can supplement the data to know x and y and hence the number.

50. (b) From statement I, we do not know the principal.  
 From statement II, data are incomplete. i.e. principal is unknown.  
 From statement III, we get the required data i.e.  
 If principal be ₹ x, Interest = ₹ x Time = 5 years,  

$$\text{Rate} = \frac{\text{Interest} \times 100}{\text{Principal} \times \text{time}}$$

**SPEED TEST 33**

1. (e)  $2 \xrightarrow{-3} 3 \xrightarrow{+4} \#$   
 $O \xrightarrow{-3} I \xrightarrow{+4} C$   
 $K \xrightarrow{-3} O \xrightarrow{+4} 5$   
 $\# \xrightarrow{-3} P \xrightarrow{+4} I$   
 $B \xrightarrow{-2} \$ \xrightarrow{+3} <$
2. (a)  $P \xrightarrow{+3} \# \xrightarrow{+3} 7 \xrightarrow{+3} @ \xrightarrow{+3} D$   
 $R \xrightarrow{+3} L \xrightarrow{+3} I \xrightarrow{+3} O \xrightarrow{+3} K$   
 $J \xrightarrow{+3} 3 \xrightarrow{+3} 2 \xrightarrow{+3} N \xrightarrow{+3} C$
3. (c) 11th to the left of 16th from left means 5th from the left. But the sequence has been reversed. Therefore, required element will be 5th from right in the original sequence.  
 5th from right  $\Rightarrow$  B
4. (c) 

Consonant	Number	Symbol
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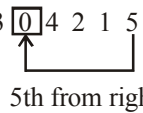
  
 Such combinations are  

R3P	N7O	K5D	Q4
-----	-----	-----	----
5. (e) 

Number	Symbol	Consonant
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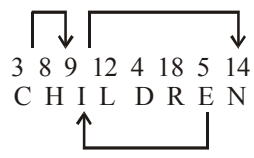
  
 There is no such combination.
6. (e) 

1	2	3	4	5	6	7	8	9	10
O	U	T	R	A	G	E	O	U	S

  
 Meaningful words  $\Rightarrow$  EAST, SEAT
7. (d) New sequence  
 $9\ 7\ 6\ 8\ 3\ \boxed{0}\ 4\ 2\ 1\ 5$   
  
 5th from right
8. (c) Arrangement according to english alphabet  

C	E	I	N	P	R
P	R	I	N	C	E
9. (a) 

3	8	9	12	4	18	5	14
C	H	I	L	D	R	E	N

  

10. (b) 

7	6	4	5	2	8
8	7	6	5	4	2
11. (b) 

D	A	N	G	E	R	O	U	S
-1	+1	-1	-1	+1	-1	+1	+1	-1
C	B	M	F	F	Q	P	V	R
12. (c) 

A	D	J	E	C	T	I	V	E
+1	-1	-1	+1	-1	-1	+1	-1	+1
B	C	I	F	B	S	J	U	F
13. (b)  $489 \Rightarrow 489$ ;  $541 \Rightarrow 145$   
 $654 \Rightarrow 456$ ;  $953 \Rightarrow 359$   
 $783 \Rightarrow 378$   
 Lowest number  $\Rightarrow 145 \Rightarrow 541$

14. (b)  $489 - 5 \Rightarrow 484$ ;  $541 - 5 \Rightarrow 536$   
 $654 - 5 \Rightarrow 649$ ;  $953 - 5 \Rightarrow 948$   
 $783 - 5 \Rightarrow 778$   
 Second highest number = 778  
 Highest number = 948  
 $7 - 4 = 3$
15. (d)  $489 \Rightarrow 849$ ;  $541 \Rightarrow 451$   
 $654 \Rightarrow 564$ ;  $953 \Rightarrow 593$   
 $783 \Rightarrow 873 = 593 \Rightarrow 953$   
 Third highest number = 593  $\Rightarrow$  953
16. (a)  $489 + 1 = 490$ ;  $541 + 1 = 542$   
 $654 + 1 = 655$ ;  $953 + 1 = 954$   
 $783 + 1 = 784$   
 $5 - 4 = 1$
17. (c)  $489 \Rightarrow 984$ ;  $541 \Rightarrow 145$   
 $654 \Rightarrow 456$ ;  $953 \Rightarrow 359$   
 $783 \Rightarrow 387$   
 Second highest number = 456  $\Rightarrow$  654
18. (b) TRAIL
19. (a) Find the corresponding letters from the right.
20. (e) The first letter follows +1, +2, +3, +4,..... The second follows +2, +3, +4, +5, .....
21. (b) Move two letters backward in the alphabetical series for each corresponding letter.
22. (b) C O N T A G I O U S  
 G I O U S C O N T A
23. (b)  $5\ 2\ 6\ 3\ 1\ 8\ 7 \rightarrow 6\ 1\ 5\ 4\ 2\ 7\ 8 \rightarrow 1\ 2\ 4\ 5\ 6\ 7\ 8$
24. (d) 

S	E	A	R	C	H	E	S
---	---	---	---	---	---	---	---
25. (e) 169, 196, and 961 which are the squares of 13, 14 and 31 respectively. Of these, 14 is ruled out because it is even. We are still left with two such numbers — 13 and 31.
26. (a)  $R_1 = 15\ 8\ 21$   
 $= 7\ 21\ [Apply\ Rule\ (v)]$   
 $= 28\ [Apply\ Rule\ (i)]$   
 Hence p  $= R_1 = 28$   
 Now,  $R_2 = p\ 3\ 27$   
 $= 28\ 3\ 27$   
 $= 31\ 27\ [Apply\ Rule\ (ii)]$   
 $= 58\ [Apply\ Rule\ (i)]$
27. (e)  $m = R_1 = 12\ 64\ 17$   
 $= 52\ 17\ [Apply\ Rule\ (iii)]$   
 $= 69\ [Apply\ Rule\ (ii)]$   
 Now,  $R_2 = 20\ m\ 16$   
 $= 20\ 69\ 16$   
 $= 89\ 16\ [Apply\ Rule\ (ii)]$   
 $= 73\ [Apply\ Rule\ (v)]$
28. (b)  $r = R_1 = 85\ 17\ 35$   
 $= 5\ 35\ [Apply\ Rule\ (iv)]$   
 $= 40\ [Apply\ Rule\ (i)]$   
 Now,  $R_2 = 16\ 19\ r$   
 $= 16\ 19\ 40$   
 $= 35\ 40\ [Apply\ Rule\ (ii)]$   
 $= -5\ [Apply\ Rule\ (v)]$
29. (c)  $d = R_1 = 24\ 15\ 3$   
 $= 39\ 3\ [Apply\ Rule\ (ii)]$   
 $= 13\ [Apply\ Rule\ (iv)]$   
 Now,  $R_2 = d\ 6\ 15$   
 $= 13\ 6\ 15$   
 $= 7\ 15\ [Apply\ Rule\ (v)]$   
 $= 22\ [Apply\ Rule\ (i)]$

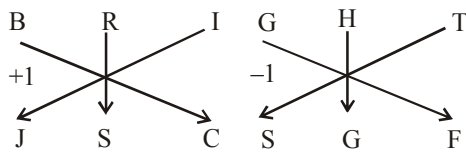
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30. (d)  $h = R_1 = 28 \quad 49 \quad 15$   
 $= 21 \quad 15$  [Apply Rule (iii)]  
 $= 36$  [Apply Rule (i)]  
 Now,  $R_2 = h \quad 3 \quad 12$   
 $= 36 \quad 3 \quad 12$   
 $= 39 \quad 12$  [Apply Rule (ii)]  
 $= 27$  [Apply Rule (v)]

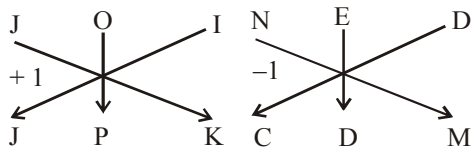
17. (d) First term =  $3^2 + 3$ .  
 Second term =  $4^2 + 4$   
 Third term =  $5^2 + 5$   
 $\therefore$  Fourth term =  $6^2 + 6$
18. (c) First term =  $2^2 - 1$   
 Second term =  $3^2 + 1$   
 Third term =  $3^2 - 1$   
 $\therefore$  Fourth term =  $4^2 + 1$
19. (c) First term =  $3^2 - 1$ .  
 Second term =  $3^3 + 1$   
 Third term =  $4^2 - 1$   
 $\therefore$  Fourth term =  $4^3 + 1$

**SPEED TEST 34**

1. (a) A square is a two-dimensional figure consisting of sides whereas a cube is a three-dimensional figure. Similarly, circle is a two-dimensional figure and a sphere is a three-dimensional figure.



Similarly,



2. (e) [See diagrams above]
3. (a) The second number is the product of the digits of the first.
4. (d) The first is found in the form of the second.
5. (c) In first term, two letters are missing between first two letters while last two are continuous but in second term first two letters are continuous and two letters are missing between last two letters.
6. (a) The third letter of second term is the next letter according to alphabet to the third letter of first term.
7. (a) The letters of each group are in reverse order.
8. (d) First two letters of the first term are in reverse order in the second term and so are the next two letters.
9. (b) Fifth and third letters of the first term are first and second letters of the second term and first two letters of the first term are third and fourth letters of the second term.
10. (a) There is a gap of one letter between third and fourth, fourth and first, and first and second letters of each group.
11. (a) The letters in first and second terms are in reverse order of alphabet.
12. (e) There is a gap of one letter between each corresponding letters of 'QYGO' and 'SAIQ'
13. (d) There is a gap of three letters between each corresponding letters of 'YAWC' and 'UESG'.
14. (c) There is a gap of two letters between the two consecutive letters of each term.
15. (e) First, Second, and third each term is one more than the square of prime number. Hence the fourth term =  $(19)^2 + 1$
16. (a) First term =  $(6)^2 + 6$ .  
 Second term =  $(7)^2 + 7$   
 Third term =  $(10)^2 + 10$   
 $\therefore$  Fourth term =  $(11)^2 + 11$

20. (b) First term =  $2^3$ .  
 Second term =  $3^2$   
 Third term =  $4^3$   
 $\therefore$  Fourth term =  $5^2$
21. (d) Second term =  $4 \times$  First term  
 $\therefore$  Fourth term =  $4 \times$  Third term
22. (a) Second term =  $(\text{First term})^2 - 1$   
 $\therefore$  Fourth term =  $(\text{Third term})^2 - 1$
23. (e) Second term =  $(\text{First term})^3$   
 $\therefore$  Fourth term =  $(\text{Third term})^3$ .
24. (a) Second term = First term +  $1/8$  First term.  
 $\therefore$  Fourth term = Third term +  $1/8$  Third term.
25. (e)
26. (c) 1 and 4 are what happens after a disease. 5 is its symptom but not a definite one. 2 is a probable cause.
27. (c) The first is the force fighting on/in the second.
28. (e) More of a test of your English.
29. (c) Secretly is the opposite of openly, and silently is the opposite of noisily. Choices a and b are clearly not the opposites of silently. (Choice d) means the same thing as silently.
30. (b) A spring forms or has the shape of a coil, and a ring forms a loop.

**SPEED TEST 35**

1. (a)  $H \xrightarrow{+2} J \xrightarrow{-3} G$   
 $P \xrightarrow{+1} Q \xrightarrow{-3} N$   
 $D \xrightarrow{+1} E \xrightarrow{-3} B$   
 $T \xrightarrow{+1} U \xrightarrow{-3} R$   
 $K \xrightarrow{+1} L \xrightarrow{-3} I$
2. (e) Lotus is grown in water (Mud).
3. (b)
- |   |   |   |   |   |      |   |   |
|---|---|---|---|---|------|---|---|
| P | R | O | B | L | E    | M |   |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓    | ↓ |   |
| 2 | 9 | 4 | 8 | 3 | 7    | 5 |   |
| B | O | R | E | M | O    | E | P |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓    | ↓ | ↓ |
| 8 | 4 | 9 | 7 | 5 | 9(4) | 7 | 2 |
| L | B | O | R | O | M    | E | P |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓    | ↓ | ↓ |
| 3 | 8 | 4 | 9 | 4 | 5    | 7 | 2 |
| E | R | O | L |   |      |   |   |
| ↓ | ↓ | ↓ | ↓ |   |      |   |   |
| 7 | 9 | 4 | 3 |   |      |   |   |

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4. (e)  
 5. (d) River is a water body.  
 6. (d) Except 255 all other numbers are one more than perfect square.  
 $50 = (7)^2 + 1, 65 = (8)^2 + 1;$   
 $170 = (13)^2 + 1, 290 = (27)^2 + 1$   
 But,  $255 = (16)^2 - 1$   
 7. (e) The number 49 is a perfect square of a natural number.  
 8. (e) Except Brinjal, all others grow underground.  
 9. (d) All others are parts of a car.  
 10. (c) Except 529, all others are perfect squares of even numbers. The number 529 is a perfect square of an odd number.  
 $196 = 14 \times 14; 256 = 16 \times 16$   
 $529 = 23 \times 23; 576 = 24 \times 24$   
 $324 = 18 \times 18$   
 11. (a)  $R \xrightarrow{-2} P \xrightarrow{-2} N$   
 $W \xrightarrow{-4} S \xrightarrow{+2} U$   
 $H \xrightarrow{-4} D \xrightarrow{+2} F$   
 $L \xrightarrow{-4} H \xrightarrow{+2} J$   
 $Q \xrightarrow{-4} M \xrightarrow{+2} O$   
 12. (b) The number 441 is a multiple of 3  
 13. (e)  $P \xrightarrow{-3} M; E \xrightarrow{-3} B;$   
 $T \xrightarrow{-3} Q; I \xrightarrow{-3} F;$   
 $V \xrightarrow{+3} Y$   
 14. (d)  $115 = 5 \times 23;$   
 $85 = 5 \times 17;$   
 $95 = 5 \times 19;$   
 $155 = 5 \times 31;$   
 But,  $75 = 5 \times 15$   
 One factor of 75 is not a Prime Number.  
 15. (e) Except number 345, all other numbers are product of 23 and a Prime Number.  
 $115 = 23 \times 5;$   
 $161 = 23 \times 7$   
 $253 = 23 \times 11;$   
 $391 = 23 \times 17$   
 But  $345 = 23 \times 15.$   
 The number 15 is not a Prime Number.  
 16. (c)  $O \xrightarrow{-2} M \xrightarrow{+4} Q$   
 $H \xrightarrow{-2} F \xrightarrow{+4} J$   
 $T \xrightarrow{-4} P \xrightarrow{+2} R$   
 $T \xrightarrow{-2} R \xrightarrow{+4} V$   
 $V \xrightarrow{-2} T \xrightarrow{+4} X$   
 17. (c) In all others, 1st letter - 1 = 2nd letter, and 2nd letter - 2 = 3rd letter.  
 18. (a) Except Diabetes, all others are infectious diseases.

19. (a) Except Mustard, all others are grains. Mustard is an oilseed.  
 20. (d) All the numbers are multiples of 5. But 25 is a perfect square.  
 21. (d) All others are synonyms  
 22. (c) All others are synonyms  
 23. (d) In each pair if first letter is m<sup>th</sup> from the beginning of alphabet the second letter is m<sup>th</sup> from end.  
 24. (e) In all others,  
 1st letter + 1 = 4th letter.  
 4th letter + 1 = 2nd letter  
 and 2nd letter + 2 = 3rd letter  
 25. (c) In all others  
 4th letter + 1 = 1st letter  
 1st letter + 2 = 2nd letter  
 2nd letter + 1 = 3rd letter.  
 26. (b) All others are synonyms.  
 27. (d) All others are synonyms.  
 28. (a) All others imply 'UP'.  
 29. (c) 'Large' is an adjective whereas others are noun.  
 30. (d) All others are negative.

**SPEED TEST 36**

1. (a)  $1050 \quad 420 \quad 168 \quad 67.2 \quad 26.88 \quad 10.752$   
 $\div 2.5 \quad \div 2.5 \quad \div 2.5 \quad \div 2.5 \quad \div 2.5$   
 $0 \quad 6 \quad 24 \quad 60 \quad 120 \quad 210 \quad ?$   
 2. (e)  $+6 \quad +18 \quad +36 \quad +60 \quad +90 \quad +126$   
 $+12 \quad +18 \quad +24 \quad +30 \quad +36$   
 $\therefore ? = 210 + 126 = 336$   
 3. (a) The pattern of the series is :  
 $19 - 15 = 4 = 2^2$   
 $83 - 19 = 64 = 4^3$   
 $119 - 83 = 36 = 6^2$   
 $631 - 119 = 512 = 8^3$   
 $\therefore ? = 631 + 10^2 = 631 + 100 = 731$   
 4. (c) The pattern of the series is :  
 $19 + 1 \times 7 = 19 + 7 = 26$   
 $26 + 2 \times 7 = 26 + 14 = 40$   
 $40 + 4 \times 7 = 40 + 28 = 68$   
 $68 + 8 \times 7 = 68 + 56 = 124$   
 $124 + 16 \times 7 = 124 + 112 = 236$   
 5. (d) The pattern of the number series is as given below:  
 $11 \times 1 - 1 = 10$   
 $10 \times 2 - 2 = 18$   
 $18 \times 3 - 3 = 51$   
 $51 \times 4 - 4 = 200$   
 $200 \times 5 - 5 = 995$   
 $\therefore ? = d$   
 6. (b) The pattern of the number series is as given below:  
 $14 + 10 = 24$   
 $24 + 19 (= 10 + 9) = 43$   
 $43 + 28 (= 19 + 9) = 71$   
 $71 + 37 (= 28 + 9) = 108$   
 $108 + 46 (= 37 + 9) = 154$

7. (e) The pattern of the number series is as given below:  
 $144 + 29 = 173$   
 $173 - 33 = 140$   
 $140 + 29 = 169$   
 $169 - 33 = 136$   
 $136 + 29 = 165$

8. (a) The pattern of the number series is as given below:  
 $\frac{656}{2} + 24 = 328 + 24 = 352$   
 $\frac{352}{2} + 24 = 176 + 24 = 200$   
 $\frac{200}{2} + 24 = 100 + 24 = 124$   
 $\frac{124}{2} + 24 = 62 + 24 = 86$   
 $\frac{86}{2} + 24 = 43 + 24 = 67$

9. (b) The pattern of the number series is as given below:  
 $12 \times 4 - 30 = 48 - 30 = 18$   
 $18 \times 4 - 36 = 72 - 36 = 36$   
 $36 \times 4 - 42 = 144 - 42 = 102$   
 $102 \times 4 - 48 = 408 - 48 = 360$   
 $360 \times 4 - 54 = 1440 - 54 = 1386$

10. (c)  $71 \quad 78 \quad 99 \quad 134 \quad 183 \quad 246$   
 $\quad \quad \quad + (7 \times 1) \quad + (7 \times 3) \quad + (7 \times 5) \quad + (7 \times 7) \quad + (7 \times 9)$

11. (b)  $342 \quad 337.5 \quad 328.5 \quad 315 \quad 297 \quad 274.5$   
 $\quad \quad \quad - (4.5 \times 1) \quad - (4.5 \times 2) \quad - (4.5 \times 3) \quad - (4.5 \times 4) \quad - (4.5 \times 5)$

12. (c)  $161 \quad 164 \quad 179 \quad 242 \quad 497 \quad 1520$   
 $\quad \quad \quad +3 \quad +15 \quad +63 \quad +255 \quad +1023$   
 $\quad \quad \quad (3 \times 4) + 3 \quad (15 \times 4) + 3 \quad (63 \times 4) + 3 \quad (255 \times 4) + 3$

13. (d)  $3601 \quad 3602 \quad 1803 \quad 604 \quad 154 \quad 36 \quad 12$   
 $\quad \quad \quad \div 1 + 1 \quad \div 2 + 2 \quad \div 3 + 3 \quad \div 4 + 4 \quad \div 5 + 5 \quad \div 6 + 6$

14. (a)  $4 \quad 12 \quad 42 \quad 196 \quad 1005 \quad 6066 \quad 42511$   
 $\quad \quad \quad \times 2 + (2)^2 \quad \times 3 + (3)^2 \quad \times 4 + (4)^2 \quad \times 5 + (5)^2 \quad \times 6 + (6)^2 \quad \times 7 + (7)^2$

15. (e)  $32 \quad 16 \quad 24 \quad 65 \quad 210 \quad 945 \quad 5197.5$   
 $\quad \quad \quad \times 0.5 \quad \times 1.5 \quad \times 2.5 \quad \times 3.5 \quad \times 4.5 \quad \times 5.5$

16. (d) The pattern of number series is as follows:  
 $7 \times 2 - 2 = 12$   
 $12 \times 4 - (2 + 6) = 48 - 8 = 40$   
 $40 \times 6 - (8 + 10) = 240 - 18 = 222$   
 $222 \times 8 - (18 + 14) = 1776 - 32 = 1744 \neq 1742$   
 $1744 \times 10 - (32 + 18) = 17440 - 50 = 17390$

17. (c) The pattern of number series is as follows:  
 $6 \times 7 + 7^2 = 42 + 49 = 91$   
 $91 \times 6 + 6^2 = 546 + 36 = 582 \neq 584$   
 $582 \times 5 + 5^2 = 2910 + 25 = 2935$   
 $2935 \times 4 + 4^2 = 11740 + 16 = 11756$   
 $11756 \times 3 + 3^2 = 35268 + 9 = 35277$

18. (e) The pattern of number series is as follows:  
 $9050 - 15^3 = 9050 - 3375 = 5675$   
 $5675 - 13^3 = 5675 - 2197 = 3478$   
 $3478 - 11^3 = 3478 - 1331 = 2147$   
 $2147 - 9^3 = 2147 - 729 = 1418$   
 $1418 - 7^3 = 1418 - 343 = 1075 \neq 1077$

19. (b) The pattern of number series is as follows:  
 $8424 \div 2 = 4212$   
 $4212 \div 2 = 2106$   
 $2106 \div 2 = 1053 \neq 1051$   
 $1053 \div 2 = 526.5$   
 $526.5 \div 2 = 263.25$   
 $263.25 \div 2 = 131.625$

20. (a) The series is  $-200, -100, -50, -25, -12.5, -6.25, \dots$

21. (c) The series is  $\times 1.5, \times 2, \times 1.5, \times 2, \times 1.5, \times 2, \dots$

22. (e) The given series is  $\div 2 - 6$   
 Reqd no. =  $50 \div 2 - 6 = 25 - 6 = 19$

23. (d)  $(1015 + 1) \div 2 = 508$ ;  
 $(508 + 2) \div 2 = 255$ ;  $(255 + 3) \div 2 = 129$ ;  
 $(129 + 4) \div 2 = 66.5$ ;  $(66.5 + 5) \div 2 = 35.75$ ;  
 $(35.75 + 6) \div 2 = 20.875$

24. (b) The series is  $(354 + 6) \div 2 = 180$   
 $(180 + 12) \div 3 = 64$   
 $(64 + 20) \div 4 = 21$   
 $(21 + 30) \div 5 = 10.2$   
 $(10.2 + 42) \div 6 = 8.7$

25. (a) The series is  $\times 4, \div 8, \times 12, \div 16, \times 20$

26. (d) The series is  $-1.1, -2.2, -4.4, -8.8, -17.6$

27. (e) The series is  $+11^2, +12^2, +13^2, +14^2, +15^2$

28. (d) The series is abcbc, bcaca, cabab.

29. (a) The series is abccb, bcaac, cabba.

30. (b) The series is abcac, bcaba, cabca.

**SPEED TEST 37**

1. (d)  $3601 \quad 3602 \quad 1803 \quad 604 \quad 154 \quad 36 \quad 12$   
 $\quad \quad \quad \div 1 + 1 \quad \div 2 + 2 \quad \div 3 + 3 \quad \div 4 + 4 \quad \div 5 + 5 \quad \div 6 + 6$   
 154 is written in place of 155.

2. (a)  $4 \quad 12 \quad 42 \quad 196 \quad 1005 \quad 6066 \quad 42511$   
 $\quad \quad \quad \times 2 + (2)^2 \quad \times 3 + (3)^2 \quad \times 4 + (4)^2 \quad \times 5 + (5)^2 \quad \times 6 + (6)^2 \quad \times 7 + (7)^2$   
 42 is written in place of 45.

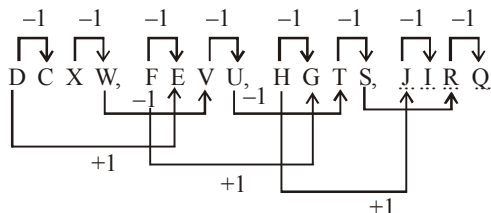
3. (a)  $2 \quad 8 \quad 12 \quad 20 \quad 30 \quad 42 \quad 56$   
 $\quad \quad \quad + 4 \quad + 6 \quad + 8 \quad + 10 \quad + 12 \quad + 14$   
 8 is written in place of 6.

4. (e)  $32 \quad 16 \quad 24 \quad 65 \quad 210 \quad 945 \quad 5197.5$   
 $\quad \quad \quad \times 0.5 \quad \times 1.5 \quad \times 2.5 \quad \times 3.5 \quad \times 4.5 \quad \times 5.5$   
 65 is written in place of 60.

5. (d)  $7 \quad 13 \quad 25 \quad 49 \quad 97 \quad 194 \quad 385$   
 $\quad \quad \quad + 6 \quad + 12 \quad + 24 \quad + 48 \quad + 96 \quad + 192$   
 194 is written in place of 193

6. (d) The given series is  $\times 1.5 + 1.5, \times 2.5 + 2.5, \times 3.5 + 3.5, \times 4.5 + 4.5, \times 5.5 + 5.5$ .
7. (b) The series is  $(15-6) \times 1 = 9, (9-5) \times 2 = 8, (8-4) \times 3 = 12, (12-3) \times 4 = 36, (36-2) \times 5 = 170$ .  
Similarly, for the question row,  
 $a = (19-6) \times 1 = 13, b = (13-5) \times 2 = 16$
8. (a) The series is  $\times 1 - 1, \times 2 - 2, \times 3 - 3, \times 4 - 4, \times 5 - 5$ .
9. (e) The series is  $\times 2 + 2^2, \times 3 + 3^2, \times 4 + 4^2, \times 5 + 5^2, \times 6 + 6^2$ .
10. (c) The series is  $\times 1 + 1, \times 2 + 2, \times 3 + 3, \times 4 + 4, \times 5 + 5$ .
11. (b)  $3 + 3^2, 5 + 5^2, 7 + 7^2$ .
12. (a)  $9^2 + 10, (19)^2 + 20, (29)^2 + 30$
13. (e)  $100 \times 1.1, 200 \times 2.2, 300 \times 3.3, 400 \times 4.4$
14. (b)  $+ 1^2 - 0^2, + 3^2 - 2^2, + 5^2 - 4^2, + 7^2 - 6^2$ .
15. (e)  $\times 3 + 1, \times 3 + 3, \times 3 + 5, \times 3 + 7, \dots$
16. (d) Series is  $-99, -89, -79, -69, -59$ .
17. (a) Series is  $\times 1 + 11, \times 2 + 21, \times 3 + 31, \times 4 + 41$ .
18. (b) Series is  $+ 11^2, + 10^2, + 9^2, + 8^2$ .
19. (e) Series is  $\times 9 + 9, \times 8 + 8, \times 7 + 7, \times 6 + 6$ .
20. (a) Series is  $+91, +81, +71, +61$ .
21. (d) The series is *abcab, bcabc, cabca*.
22. (c) First two letters of each term are in reverse order. Similarly third and fourth letters are also in reverse order. Besides this, second letter of the second term is the next letter after the first letter of the first term.

**Second Method -**



23. (e) The letters are in reverse order while one letter is missing between two consecutive letters.
24. (b) There is a gap of one letter between two consecutive letters. Besides, this the letters are capital and lower respectively.
25. (b)  $m \underline{m} \underline{1} \underline{1}$   
 $m \underline{m} \underline{1} \underline{1}$   
 $m \underline{m} \underline{1} \underline{1}$
26. (b) The series is based on following pattern:  
 $8 \times 1 - 2 = 6$   
 $6 \times 2 - 3 = 9$   
 $9 \times 3 - 4 = 23$   
 $23 \times 4 - 5 = 87$   
 $87 \times 5 - 6 = 429$   
Similarly, the new series is as follows:  
 $6 \times 1 - 2 = 4 \dots (1)$   
 $4 \times 2 - 3 = 5 \dots (2)$   
 $5 \times 3 - 4 = 11 \dots (3)$   
 $11 \times 4 - 5 = 39 \dots (4)$   
 $39 \times 5 - 6 = 189 \dots (5)$   
Therefore, the number 11 will come in place of (3)
27. (d) The series is based on following pattern:  
 $2 \times 1 + 1^2 = 3$   
 $3 \times 2 + 2^2 = 10$   
 $10 \times 3 + 3^2 = 39$   
 $39 \times 4 + 4^2 = 172$   
 $172 \times 5 + 5^2 = 885$   
Similarly, the new series is as follows:  
 $1 \times 1 + 1^2 = 2 \dots (1)$

$$2 \times 2 + 2^2 = 8 \dots (2)$$

$$8 \times 3 + 3^2 = 33 \dots (3)$$

Therefore, the number 8 will come in place of (2).

28. (b) The series is based on the following pattern:

$$5 \times 1 + 2 = 7$$

$$7 \times 2 - 4 = 10$$

$$10 \times 3 + 6 = 36$$

$$36 \times 4 - 8 = 136$$

$$136 \times 5 + 10 = 690$$

Similarly, the new series is as follows:

$$2 \times 1 + 2 = 4 \dots (1)$$

$$4 \times 2 - 4 = 4 \dots (2)$$

$$4 \times 3 + 6 = 18 \dots (3)$$

$$18 \times 4 - 8 = 64 \dots (4)$$

$$64 \times 5 + 10 = 330 \dots (5)$$

Therefore, the number 330 will come in place of (5).

29. (c) 22
30. (e) The series is based on following pattern:

$$8 \times 0.5 = 4,$$

$$4 \times 1.5 = 6,$$

$$6 \times 2.5 = 15,$$

$$15 \times 3.5 = 52.6,$$

$$52.5 \times 4.5 = 236.25$$

Similarly,

$$4 \times 0.5 = 2 \dots (1)$$

$$2 \times 1.5 = 3 \dots (2)$$

$$3 \times 2.5 = 7.5 \dots (3)$$

$$7.5 \times 3.5 = 26.25 \dots (4)$$

Therefore, the number 26.25 will come in place of (4).

**SPEED TEST 38**

1. (c) As  
E N G L I S H  
|+1|-1|+1|-1|+1|-1|+1  
F M H K J R I  
Similarly,  
O C T O B E R  
|+1|-1|+1|-1|+1|-1|+1  
P B U N C D S
2. (c) 'Aeroplane' can fly and 'aeroplane' is called 'bulldozer'.
3. (d) te da ka ni  $\rightarrow$  intelligence is in genes  $\dots (1)$   
se po lo ni  $\rightarrow$  genes are not responsible  $\dots (2)$   
ba da fu te  $\rightarrow$  intelligence is through experience  $\dots (3)$   
From (1) and (2), ni  $\rightarrow$  genes  
From (1) and (3), da and te  $\rightarrow$  intelligence and is  
 $\therefore$  ka  $\rightarrow$  in
4. (c)                      5. (a)                      6. (e)
7. (b)                      8. (d)
9. (a) As,  
M O D E and D E A F  
 $\downarrow \downarrow \downarrow \downarrow \quad \downarrow \downarrow \downarrow \downarrow$   
# 8 % 6                      % 6 7 \$  
Similarly,  
F O A M  
 $\downarrow \downarrow \downarrow \downarrow$   
\$ 8 7 #

10. (a)  $9 \times 7 - 85 \div 17 + 15$  (apply BODMAS)  
 $= 63 - 5 + 15 = 78 - 5 = 73$

11. (c)

A	D	G	I	L	T
3	6	8	2	4	5

D I G I T A L  
 $6 + 2 + 8 + 2 + 5 + 3 + 4 = 30$

12. (e) W E A K      W H E N  
 $\downarrow \downarrow \downarrow \downarrow$        $\downarrow \downarrow \downarrow \downarrow$   
 5 % 9 \$      5 \* % 7

Therefore,  
 H A N K  
 $\downarrow \downarrow \downarrow \downarrow$   
 \* 9 7 \$

13. (e) As  

B	R	I
$\swarrow$	$\downarrow$	$\searrow$
J	S	C

G	H	T
$\swarrow$	$\downarrow$	$\searrow$
S	G	F

  
 Similarly,  

J	O	I
$\swarrow$	$\downarrow$	$\searrow$
J	P	K

N	E	D
$\swarrow$	$\downarrow$	$\searrow$
C	D	M

14. (a) B O A R D  
 $\downarrow \downarrow \downarrow \downarrow \downarrow$   
 5 1 3 2 4  
 and  
 S I D E  
 $\downarrow \downarrow \downarrow \downarrow$   
 9 6 4 7  
 Therefore,  
 B A S E  
 $\downarrow \downarrow \downarrow \downarrow$   
 5 3 9 7

15. (e)  $24 T 16 Q 32 P 8 R 4 = ?$   
 $\Rightarrow ? = 24 + 16 - 32 \div 8 \times 4$   
 $\Rightarrow ? = 24 + 16 - 4 \times 4 = 24$

16. (c) As,  

O	R	G	A	N	I	S	E
+1	+1	+1	+1	-1	-1	-1	-1
P	S	H	B	M	H	R	D

After reversing the order, we can get the given code as given below:  
 BHSPDRHM

Similarly,  

D	E	S	T	I	N	E	D
+1	+1	+1	+1	-1	-1	-1	-1
E	F	T	U	H	M	D	C

After reversing the order, we have the required code as given below:  
 UTFECDMH

17. (b) As,  

J	O	U	R	N	E	Y
$\swarrow$	$\downarrow$	$\searrow$	$\downarrow$	$\swarrow$	$\downarrow$	$\searrow$
T	N	I	S	Z	F	O

Therefore,  

B	O	N	D	I	N	G
$\swarrow$	$\downarrow$	$\searrow$	$\downarrow$	$\swarrow$	$\downarrow$	$\searrow$
M	N	A	E	H	O	J

- 18. (d) Conditions (ii) applies.
- 19. (e) Conditions (iii) applies.
- 20. (a) No condition applies.
- 21. (c) Condition (i) applies.
- 22. (a) Conditions (i) and (iii) apply.
- 23. (c) As,

T	E	R	M	I	N	A	L
$\swarrow$	$\downarrow$	$\searrow$	$\downarrow$	$\swarrow$	$\downarrow$	$\searrow$	$\downarrow$
N	S	F	U	M	B	O	J

and

T	O	W	E	R	S
$\swarrow$	$\downarrow$	$\searrow$	$\swarrow$	$\downarrow$	$\searrow$
X	P	U	T	S	F

Similarly,  
 So,

M	A	T	E
$\swarrow$	$\downarrow$	$\searrow$	$\downarrow$
B	N	F	U

- 24. (b) how can you go = ja da ka pa ... (i)  
 can you come here = na ka sa ja ... (ii)  
 come and go = ra pa sa ... (iii)  
 From (i) and (ii), can you = ja ka ... (v)  
 From (ii) and (iii), come = sa ... (vi)  
 Using (v) and (vi) in (ii), we get here = na.

25. (a)

THR	I	VES
$\downarrow$	$\downarrow$	$\downarrow$
RHT	I	SEV
$\downarrow$	$\downarrow$	$\downarrow$
SIU	H	RDU
Similarly		
SOU	L	FUL
$\downarrow$	$\downarrow$	$\downarrow$
UOS	L	LUF
$\downarrow$	$\downarrow$	$\downarrow$
VPT	K	KTE

- 26. (c) how many goals scored = 5 3 9 7 ... (i)
- many more matches = 9 8 2 ... (ii)
- he scored five = 1 6 3 ... (iii)
- From (i) and (ii), many = 9 ... (iv)
- From (i) and (iii), scored = 3 ... (v)
- Using (iv) and (v) in (i), we get goals = 5 or 7.

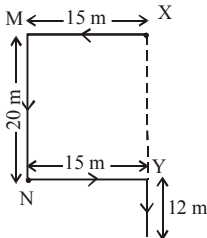
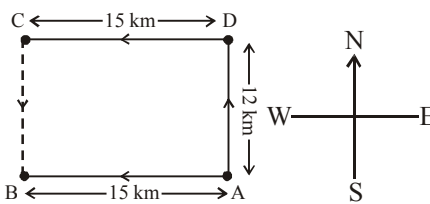
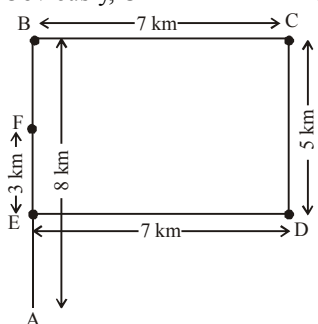
27. (e)  $\begin{matrix} \text{BUI} & \text{L} & \text{DER} \\ \downarrow & \downarrow & \downarrow \\ \text{IUB} & \text{L} & \text{RED} \\ \downarrow +1 & \downarrow -1 & \downarrow +1 \\ \text{JVC} & \text{K} & \text{SFE} \end{matrix}$   
 Similarly,  
 $\begin{matrix} \text{SEA} & \text{L} & \text{ING} \\ \downarrow & \downarrow & \downarrow \\ \text{AES} & \text{L} & \text{GNI} \\ \downarrow +1 & \downarrow -1 & \downarrow +1 \\ \text{BFT} & \text{K} & \text{HOJ} \end{matrix}$

28. (c) First write the first three letters in reverse order and then the next two in reverse order.

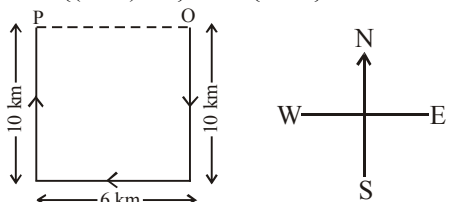
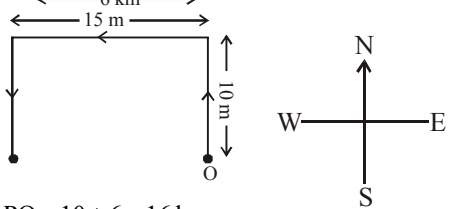
29. (b)  $\begin{matrix} \text{MAJO} & \text{RITY} \\ \downarrow & \downarrow \\ \text{OJAM} & \text{YTIR} \\ \downarrow +1 & \downarrow -1 \\ \text{PKBN} & \text{XSHQ} \end{matrix}$   
 Similarly,  
 $\begin{matrix} \text{SANC} & \text{TION} \\ \downarrow & \downarrow \\ \text{CNAS} & \text{NOIT} \\ \downarrow +1 & \downarrow -1 \\ \text{DOBT} & \text{MNHS} \end{matrix}$

30. (b) Each corresponding letter moves five places forward in the alphabet.

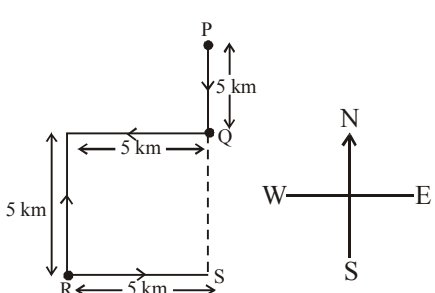
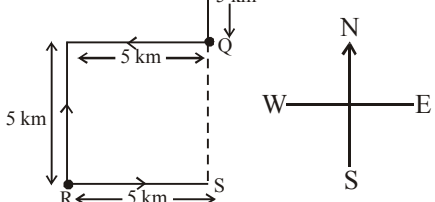
**SPEED TEST 39**

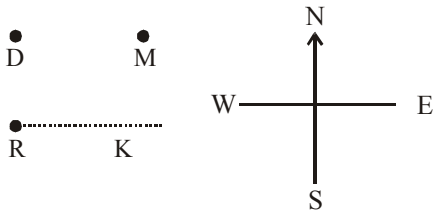
1. (c) 
- $XZ = XY + YZ = MN + YZ = 20\text{ m} + 12\text{ m} = 32\text{ m}$
2. (d) 
- Obviously,  $CB = AD = 12\text{ km}$  and B is south of C.
3. (b) 

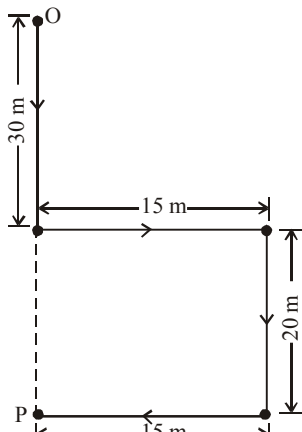
$$\begin{aligned} BF &= AB - (AE + EF) \\ &= AB - \{(AB - CD) + EF\} \\ &= 8 - \{(8 - 5) + 3\} = 8 - \{3 + 3\} = 8 - 6 = 2\text{ km} \end{aligned}$$

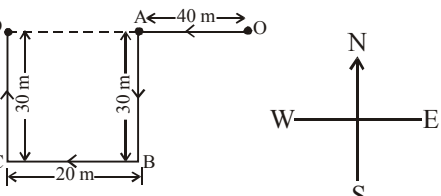
4. (b) 
5. (a) 

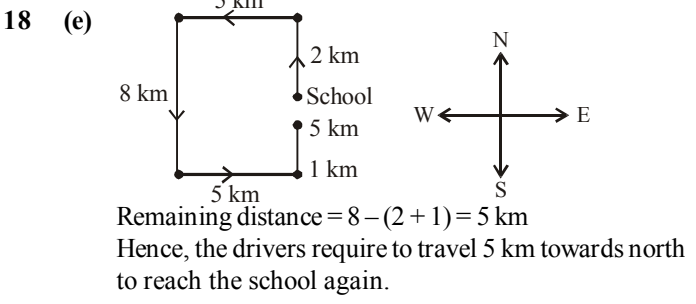
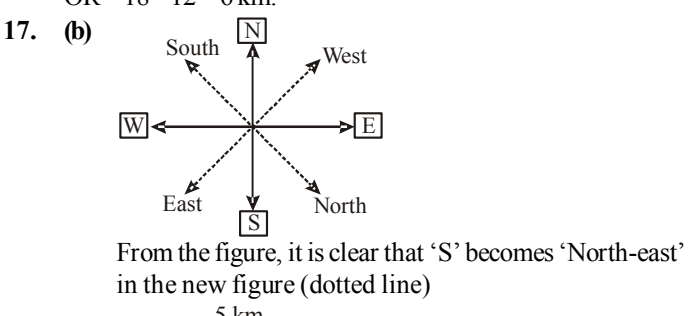
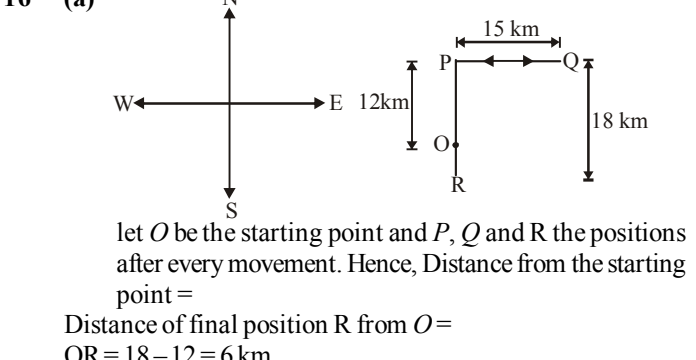
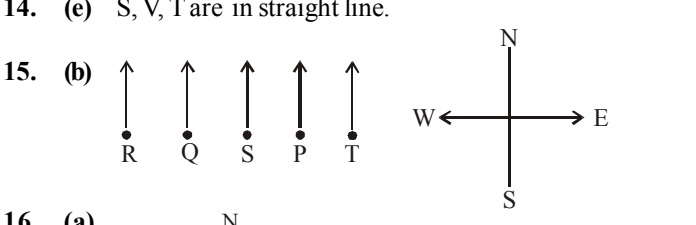
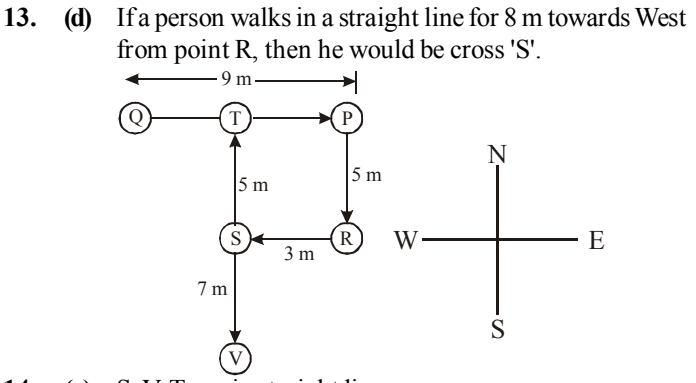
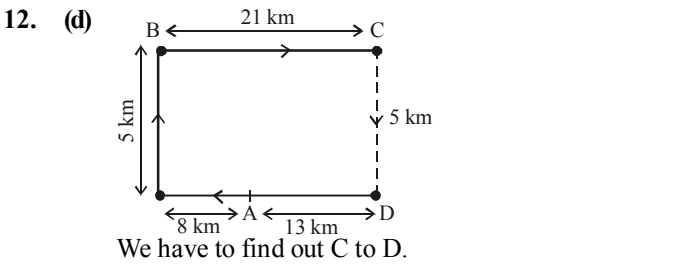
6. (a)  $PQ = 10 + 6 = 16\text{ km}$

7. (d) 
8. (a) 
- Obviously, Q lies North of S.

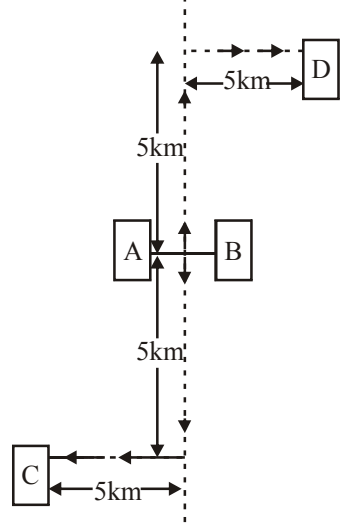
9. (d) 

10. (b) 
- $OP = 30\text{ m} + 20\text{ m} = 50\text{ m}$

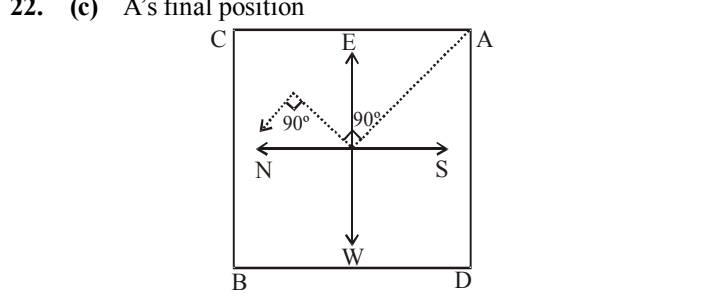
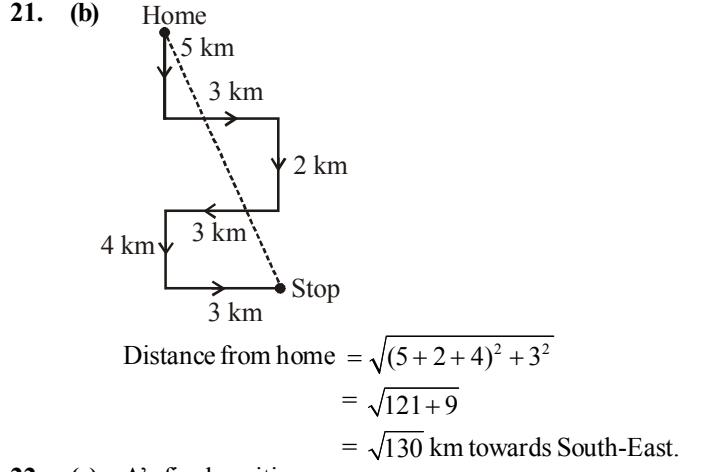
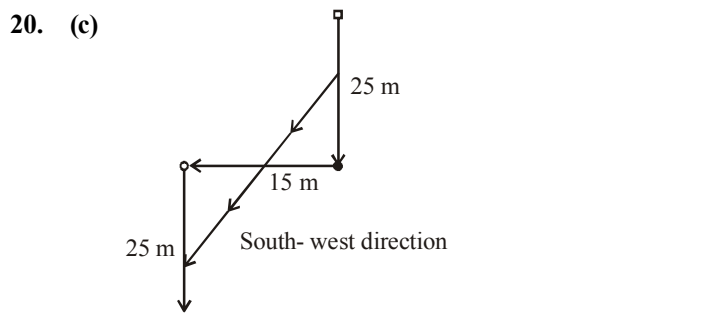
11. (b) 
- $OD = OA + AD = OA + BC = 40\text{ m} + 20\text{ m} = 60\text{ m}$

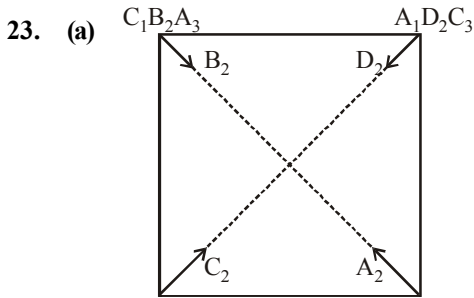


19. (c) Given information diagrammatically can be shown as follows :

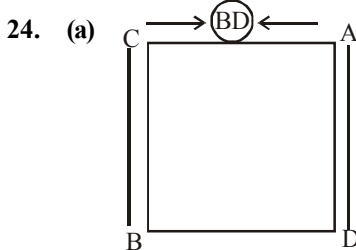


From the above diagram, it is clear that the houses of C and D are less than 20 km apart.

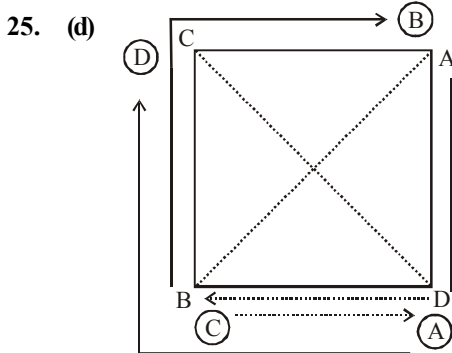




Hence final configuration of AD BC has now CBDA.  
[Where,  
A<sub>1</sub>B<sub>1</sub>C<sub>1</sub> and D<sub>1</sub> are original position of A, B, C & D  
A<sub>2</sub>B<sub>2</sub>C<sub>2</sub> and D<sub>2</sub> are position after 1st movement of A, B, C and D.  
A<sub>3</sub>, B<sub>3</sub>, C<sub>3</sub> and D<sub>3</sub> are final position.]



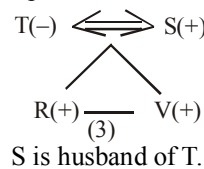
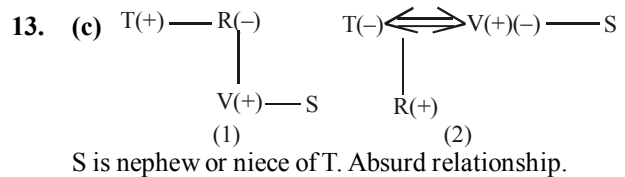
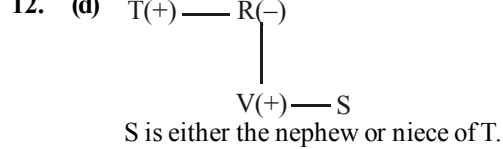
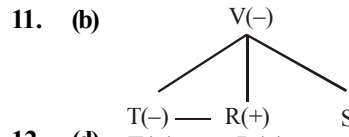
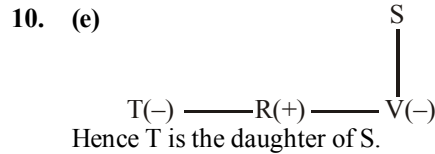
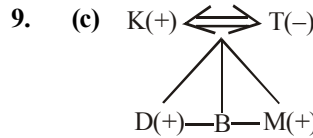
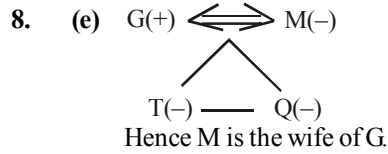
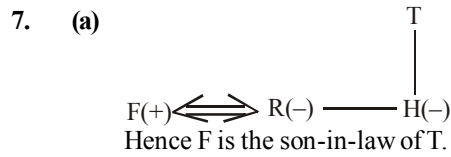
Hence B and D are at the mid point between A and C.



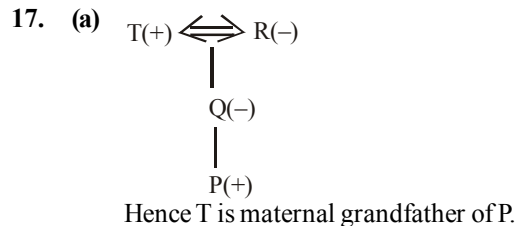
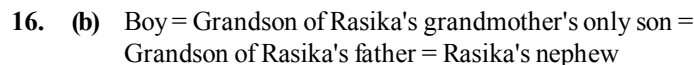
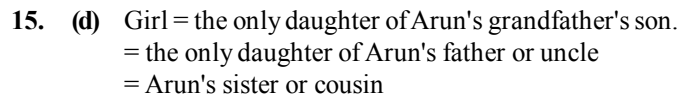
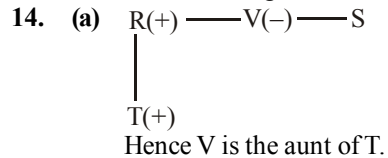
**SPEED TEST 40**

1. (e) Boy = son of Urmila's grandfather's only daughter = son of Urmila's paternal aunt = Urmila's cousin  
Hence, Urmila is also the boy's cousin.
2. (d) M is maternal uncle of T.  
⇒ M is sister of K, who is mother of T  
⇒ M ÷ K - T
3. (a) Grandfather = father of father = +, +
4. (e) It is possible that Ashok is married, that he has no child, etc.
5. (b)
 

Hence H is brother of F.
6. (e) If N is the mother, then N must be a female. Hence all the choices are ruled out.



We need not go further.



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17. (d) Neeta is 22nd from the top and Kalyan is  $22 + 5 = 27$ th from the top and 36th from the bottom who passed the examination. Therefore, total number of students who passed the examination.  
 $= 27 + 36 - 1 = 72$

Therefore, total number of students in the class

$$= \frac{72}{4} \times 5 = 90$$

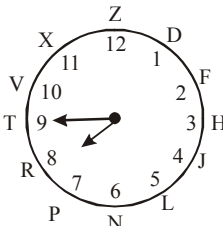
18. (d)  $B > C > D, A, E$

19. (e)



There are five boys between D and R.

20. (c) According to question



$$19.45 = 07.45$$

21. (d) In order to solve this question, we must know the position of either Ravina or Mohini from both the ends.

22. (a) There may be many assumptions and hence many sets of answers.

23. (c) According to Pratap his mother's birthday may be on 20th, 21st or 22nd April  
 According to Pratap's sister their mother's birthday may be from 1st April to 21st April.  
 Common Dates  $\Rightarrow$  20th and 21st

24. (a)  $O \xrightarrow{+1} G$        $E \xrightarrow{+1} N$   
 $D \xrightarrow{-1} F$        $B \xrightarrow{-1} P$   
 Similarly,

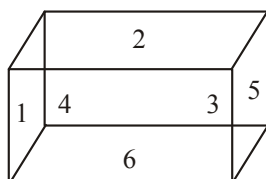
$A \xrightarrow{+1} K$        $L \xrightarrow{-1} D$

25. (d)  $T \xrightarrow{+1} J \xrightarrow{+2} N \xrightarrow{+3} A \xrightarrow{+4} G$   
 $E \xrightarrow{+2} U \xrightarrow{+3} K \xrightarrow{+4} R \xrightarrow{+5} H$

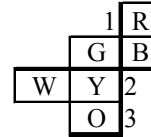
**SPEED TEST 42**

1. (d) 1 is correct as it clearly shows that 1 and 5 are the top and bottom. 2 and 6 are on the sides of 4. So 2 is opposite 6. 2 is correct on the same lines. 3 is opposite 4. 3 is correct as I & IV clearly tells that 4 is opposite 3. All the three statements regarding the figure given in the question are correct. Hence, the answer is (d).

2. (a) As it is clear from the figure that face 2 is adjacent to face 3.



3. (a)



G – O  
 R – W  
 B – Y

4. (a) B & K can't opposite to A

M & K " " to H

B & P " " to H

From above statements

H can't be opposite to B, K, M, P

Thus H will in opposite of A.

(Qs. 5-8). Since, there are 64 smaller cubes of equal size, therefore,  $n =$  no. of divisions on the face of undivided cube = 4

5. (c) no. of cubes with no face coloured =  $(n - 2)^3 = (4 - 2)^3 = 8$

6. (d) no. of cubes with one face painted =  $(n - 2)^2 \times 6 = (4 - 2)^2 \times 6 = 24$

7. (a) Number of cubes with two red opposite faces = 0 (none of the cubes can have its opposite faces coloured)

8. (c) Number of cubes with three faces coloured =  $4(\text{cubes at top corners}) + 4(\text{cubes at bottom corners}) = 8$

9. (d)

10. (d) From figure, 6 is opposite 4

1 is opposite 2

3 is opposite 5

11. (c)  $\Delta$  is opposite to =

$\times$  will opposite to +

$\div$  will opposite to –

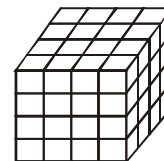
hence (a) (b) (d) are not identical.

12. (a) When the sheet shown in fig. (X) is folded to form a cube, then the face bearing the dot lies opposite to the shaded face, the face bearing a circle (With '+' sign inside it) lies opposite to a blank face and the remaining two blank faces lie opposite to each other. Clearly, the cubes shown in figures (B) and (D) cannot be formed since they have the shaded face adjacent to the face bearing a dot and the cube shown in fig. (C) cannot be formed since it shown all the three blank face adjacent to each other. Hence, only the cube shown in fig. (A) can be formed.

13. (c) The symbols adjacent to  $\Delta$  are  $\circ$ ,  $\times$ ,  $\square$  and  $\square$ . Hence, the remaining symbol (?) will be opposite to  $\Delta$ .

14. (a) The numbers adjacent to 6 are 2, 3, 4 and 5 (from the first three figure). Hence, number 1 will be opposite to 6.

15. (a)



The total no. of all such smaller cubes =  $4 \times 2$  (layers) = 8.

16. (b) There are 10 cubes.

17. (c) The number on the fall opposite to face having 1 is 6 because 3, 2 and 4 are adjacent faces of 6.

18. (a) The number opposite to 4 is 2 because 5, 1, 6 and 3 are adjacent faces of 4  
 19. (a) Bottom face of figure I means opposite face of 5. It will be 3 because 4, 1, 6 and 2 are adjacent faces of 5.  
 20. (a) Symbols adjacent to ○ are -, ×, ÷, +. Therefore, symbol Δ will be opposite to ○.

**SPEED TEST 43**

For questions 1 to 5:

Friend	Bank	Occupation
A	S	Forex
B	M	Agriculture
C	N	Economist
D	L	TO
E	R	IT
F	Q	Clerk
G	P	Research

1. (b)            2. (c)            3. (a)  
 4. (d)            5. (e)

For questions 6 to 10:

Mon	P
Tue	R
Wed	W
Thu	V
Fri	S
Sat	Q
Sun	T

6. (c)            7. (a)            8. (b)  
 9. (c)            10. (e)

For questions 11 to 15:

Friend	Shift	Day off
P	II	Tuesday
Q	I	Monday
R	II	Wednesday
S	I	Sunday
T	III	Friday
V	III	Thursday
W	I	Saturday

11. (c)            12. (d)            13. (a)  
 14. (d)            15. (c)

For questions 16 to 20:

A > D > G ... (ii); C > E > H ... (iii)  
 D > B > F ... (iv); G > C ... (v); F > G ... (vii)  
 Combining these, we get  
 A > D > B > F > G > C > E > H

16. (e)  
 17. (b) A > D > B > F > G > C, J > E > H  
 18. (a)  
 19. (b) G, C, E and H  
 20. (e)

For questions 21 to 25:

Employee	Department	Sport
A	Pers	TT
B	Admin	Football
C	Admin	Hockey
D	Admin	Basketball
E	Mktg	Cricket
F	Pers	Volleyball
G	Mktg	LT
H	Mktg	Badminton

21. (c)            22. (b)            23. (e)  
 24. (a)            25. (d)

(26-30) : Ascending order of fatness :-

Q < T < V < W < R < S/P < P/S

Ascending order of height  
 V < W < T < S < R < P < Q

26. (c)  
 27. (e) Even all the conditions are not sufficient to find the thickest.  
 28. (b)  
 29. (d) P or S can come.  
 30. (c) R is 5th from the left in both arrangements.

**SPEED TEST 44**

For questions 1 to 5: On the basis of the given information and conclusion as well as sub-conclusions drawn from them we can construct the following table:

Person	Colour of Shirt	Colour of Trousers
A	Black/White	Red
B	Red	Black/White
C	White/Violet/Black	Yellow
D	Green	Indigo
E	Yellow	Blue
F	White/Violet/Black	Black/White
G	Blue	Cream

1. (e) The colour of A's trouser is Red.  
 2. (b) The colour of G's trouser is cream.  
 3. (c) Either C or F wears violet colour shirt.  
 4. (d) The colour of F's shirt is either white or violet.  
 5. (d) The colour of B's trouser is white or black.

For questions 6 to 10: On the basis of given information we can construct the following table:

Member	Sex	Profession	Relationship
P	M/F	Banker	
Q	Female	Teacher	Wife of W.
R	M/F	Doctor	
S	Male	Chartered Accountant	Husband of T
T	Female	Architect	Wife of T.
V	Male	Engineer	
W	Male	Lawyer	Husband of Q



**For questions 21 to 25:**

Q.No.	Candidate	(i)	(ii)	(iii)/(A)	(iv)	(v)	(vi)	(vii)/(B)	Ans.
21.	Kesav	✓	✓	(✓)	✓	✓	✓	✓	(b)
22.	Arindam	✓	—	✓	×	✓	✓	✓	(e)
23.	Sohan	—	✓	✓	✓	✓	✓	✓	(a)
24.	Neha	✓	✓	✓	✓	✓	✓	(✓)	(c)
25.	Neeta	✓	✓	✓	✓	✓	✓	✓	(d)

**For questions 26 to 30:**

Q.No.	Name	(i)/(A)	(ii)	(iii)/(B)	(iv)	(v)	Ans.
26.	S Awasthi	(✓)	✓	✓	✓	✓	(d)
27.	A Soren	×	✓	✓	✓	✓	(c)
28.	S Biswas	✓	✓	✓	✓	—	(a)
29.	A Ghosal	✓	✓	(✓)	✓	✓	(e)
30.	N Jaiswal	✓	✓	✓	✓	✓	(b)

**SPEED TEST 46**

**For questions 1 to 6:**

- (i)  $P \$ Q \Rightarrow P < Q$   
 (ii)  $P \odot Q \Rightarrow P > Q$   
 (iii)  $P \delta Q \Rightarrow P = Q$   
 (iv)  $P @ Q \Rightarrow P \geq Q$   
 (v)  $P * Q \Rightarrow P \leq Q$
- (b)  $B \odot N \Rightarrow B > N$   
 $N @ R \Rightarrow N \geq R$   
 $F * R \Rightarrow F \leq R$   
 Therefore,  $B > N \geq R \geq F$   
**Conclusions**  
 I.  $B \odot R \Rightarrow B > R$ : True  
 II.  $F * N \Rightarrow F \leq N$ : Not True  
 III.  $R \$ B \Rightarrow R < B$ : True
  - (b)  $D \$ M \Rightarrow D < M$   
 $M * B \Rightarrow M \leq B$   
 $B \delta J \Rightarrow B = J$   
 Therefore,  $D < M \leq B = J$   
**Conclusions**  
 I.  $J \odot D \Rightarrow J > D$ : True  
 II.  $B @ D \Rightarrow B \geq D$ : Not True  
 III.  $J @ M \Rightarrow J \geq M$ : True
  - (c)  $F * T \Rightarrow F \leq T$   
 $T \$ N \Rightarrow T < N$   
 $N @ R \Rightarrow N \geq R$   
 Therefore,  $F \leq T < N \geq R$   
**Conclusions**  
 I.  $R \$ T \Rightarrow R < T$ : Not True  
 II.  $N \odot F \Rightarrow N > F$ : True  
 III.  $F \$ R \Rightarrow F < R$ : Not True
  - (e)  $W \delta K \Rightarrow W = K$   
 $K \odot F \Rightarrow K > F$   
 $F \$ M \Rightarrow F < M$   
 Therefore,  $W = K > F < M$   
**Conclusions**  
 I.  $M \odot K \Rightarrow M > K$ : Not True  
 II.  $W @ F \Rightarrow W \geq F$ : Not True  
 III.  $F @ W \Rightarrow F \geq W$ : Not True
  - (d)  $M @ D \Rightarrow M \geq D$   
 $D \delta K \Rightarrow D = K$   
 $K \odot R \Rightarrow K > R$

Therefore,  $M \geq D = K > R$

**Conclusions**

- $R \$ M \Rightarrow R < M$ : True
  - $K \delta M \Rightarrow K = M$ : Not True
  - $K \$ M \Rightarrow K < M$ : Not True
- K is either smaller than or equal to M.  
 Therefore, either II or III is true.

6. (a)  $F @ T \Rightarrow F \geq T$

$T \delta K \Rightarrow T = K$

$K * D \Rightarrow K \leq D$

Therefore,  $F \geq T = K \leq D$

**Conclusions**

- $D @ F \Rightarrow D \geq F$ : Not True
- $F @ K \Rightarrow F \geq K$ : True
- $D @ T \Rightarrow D \geq T$ : True

**(7-12)**

$\delta \Rightarrow \geq$	$* \Rightarrow \leq$	$\% \Rightarrow <$
$\$ \Rightarrow >$	$@ \Rightarrow =$	

- (d)  $B \% N \Rightarrow B < N$   
 $N \delta F \Rightarrow N \geq F$   
 $F \star H \Rightarrow F \leq H$   
 Therefore,  $B < N \geq F \leq H$   
**Conclusions**  
 I.  $H \$ N \Rightarrow H > N$ : Not True  
 II.  $F \% B \Rightarrow F < B$ : Not True  
 III.  $B \% H \Rightarrow B < H$ : Not True
- (c)  $W \delta F \Rightarrow W \geq F$   
 $F \% K \Rightarrow F < K$   
 $K \$ M \Rightarrow K > M$   
 Therefore,  $W \geq F < K > M$   
**Conclusions**  
 I.  $M \% F \Rightarrow M < F$ : Not True  
 II.  $M \delta F \Rightarrow M \geq F$ : Not True  
 III.  $W \$ K \Rightarrow W > K$ : Not True  
 M may be smaller than or greater than or equal to F.
- (b)  $W \$ B \Rightarrow W > B$   
 $B @ M \Rightarrow B = M$   
 $M \star R \Rightarrow M \leq R$   
 Therefore,  $W > B = M \leq R$   
**Conclusions**  
 I.  $R \$ B \Rightarrow R > B$ : Not True  
 II.  $R @ B \Rightarrow R = B$ : Not True  
 R is either greater than or equal to B. Therefore, either I or II is true.  
 III.  $M \% W \Rightarrow M < W$ : True
- (a)  $M \star D \Rightarrow M \leq D$   
 $D \$ K \Rightarrow D > K$   
 $K @ T \Rightarrow K = T$   
 Therefore,  $M \leq D > K = T$   
**Conclusions**  
 I.  $T \% D \Rightarrow T < D$ : True  
 II.  $K \% M \Rightarrow K < M$ : Not True  
 III.  $M \% T \Rightarrow M < T$ : Not True
- (d)  $K @ F \Rightarrow K = F$   
 $F \$ M \Rightarrow F > M$   
 $M \delta T \Rightarrow M \geq T$   
 Therefore,  $K = F > M \geq T$   
**Conclusions**  
 I.  $T \% F \Rightarrow T < F$ : True  
 II.  $M \% K \Rightarrow M < K$ : True  
 III.  $K \$ T \Rightarrow K > T$ : True

12. (c)  $N \star A \Rightarrow N \leq A$   
 $A \% B \Rightarrow A < B$   
 $B \delta D \Rightarrow B \geq D$   
 Therefore,  $N \leq A < B \geq D$   
**Conclusions**  
 I.  $D \% A \Rightarrow D < A$ : Not True  
 II.  $B \$ N \Rightarrow B > N$ : True  
 III.  $N \% D \Rightarrow N < D$ : Not True
13. (d)  $R \leq D \dots(i); D > W \dots(ii); B \geq W \dots(iii)$   
 None of the inequations can be combined.  
 However, either I ( $W < R$ ) or III ( $W \geq R$ ) must be true.
14. (c)  $H \geq V \dots(i); V = M \dots(ii); K > M \dots(iii)$   
 Combining these, we get  $H \geq V = M < K$   
 Hence  $K > V$  and I follows.  
 Also,  $M \leq H$  and II follows.  
 But  $H$  and  $K$  can't be compared. Hence III does not follow.
15. (a)  $K < T \dots(i); T \geq B \dots(ii); B \leq F \dots(iii)$   
 Clearly, the inequations can't be combined.
16. (a)  $Z < F \dots(i); R \leq F \dots(ii); D > R \dots(iii)$   
 Clearly, the inequations can't be combined.
17. (b)  $M > R \dots(i); R = D \dots(ii); D \leq N \dots(iii)$   
 Combining these, we get  $M > R = D \leq N$   
 I does not follow as  $M$  and  $N$  can't be related.  
 $N \geq R$  and II follows.  
 $M > D$  and III follows.
18. (b)                      19. (d)                      20. (e)

9. (e) Argument I is weak as it is not true. II is strong as such standardisation is desirable. III is also strong as the university-specific requirements can't be overlooked.
10. (d) Argument I is strong as "one year" does matter in a student's career. II and III are strong but contradict each other. Since they can't be true at the same time, either II or III is strong.
11. (a) I is strong as growth of the economy is desirable. II is not strong because Saturdays and Sundays are meant for this very "intermittent rest". This purpose is not served by holidays.
12. (e) I is strong because it is desirable to help the needy students. II is also strong because compromising on quality takes away from the purpose of education.
13. (b) I is weak because it gives undue weightage to nuclear power. Hydel power etc. also help reduce air pollution. II is strong because safety is very important criterion.
14. (d) I is weak because it lacks in substance. Merely calling something "a nuisance" is simplistic. II is weak because it wrongly assumes that those people can't contribute to the nation otherwise.
15. (a) I is strong because performance should definitely be a criterion for "national sport" status. II is irrelevant: one fails to see the harm in two nations sharing a national sport. Besides, if every nation decided to have a different national sport, we would run out of sports as there would be just too many countries.
16. (c) Both the arguments are strong but both can't be true at the same time. The sale will either be affected (as I says) or not be affected (as II says). Hence, either is strong.
17. (e) I is strong as school is the ground where we prepare for the future battles of life. II is strong because examinations kill our creativity, turning us all into mere clerks.
18. (b) I is weak because reduction of workload of IT officials is not too desirable a motive. II is strong because reduced tax collection will have a bad impact on state activities.
19. (d) I is weak as it is an argument by example. II is weak because it is absurd. In fact, if maturity is really seen as a criteria, lesser maturity would be required when the choice is limited.
20. (a) I is strong because reduced tobacco consumption is desirable. II is weak because such convenience is not desirable.

**SPEED TEST 47**

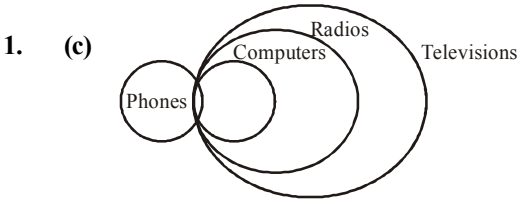
1. (d) I is strong because such a reduction in trends will be a desirable consequence. II is weak as it is silent as to what effect the ban will have on the "creative pursuits." III is strong because a ban will take away from the power of the portrayal.
2. (a) I is weak because talking of culture is irrelevant in a case which would have made no sense in the absence of modern medical technology. In fact, I is not even true. II is weak because it is simplistic. We are not told what these "unhealthy practices" will be. III is weak because it is superfluous.
3. (e) I is weak because it is not true. Look at the alternative given in II. But II is also not strong because instead of getting into the reason it provides an alternative. III is simplistic and hence weak. It is argument by example.
4. (e) I is strong because competent workforce is desirable. II is weak because it does not appear to be true for all PSUs. And even if it be true, an argument that takes recourse in helplessness seems to fall short on merit. III is strong because competition is desirable.
5. (c) I is weak because there is a mismatch of scale. II is weak because it is a trivial reason. III is strong because discrimination is undesirable.
6. (a) Argument I is strong as it attempts to address the power problem from the consumption side. II is weak as it stretches the free market theory a bit too much. III is weak because it is false.
7. (c) Argument I is weak as it merely tries to evade the issue. II may turn out to be true but it is based on a negative mindset — may be it's more of an assumption. Hence II is weak. III gets into the reason and is therefore strong.
8. (e) I is weak as it is not true. II is also weak on the same grounds. III is strong as it elaborates on how banning exports would help tackle the drought situation.

**SPEED TEST 48**

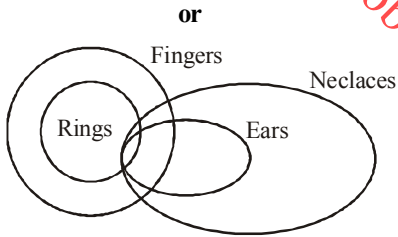
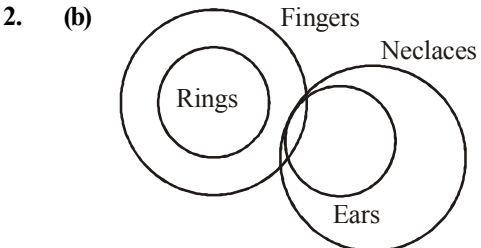
1. (b) This appears to be true from the thrust given at the end of the passage.
2. (c) Secondary education is simply out of picture.
3. (a) Clear from the sixth sentence of the passage.
4. (e) Definitely false from the first sentence.
5. (d) There are issues that go beyond the budgetary allocation, viz political and administrative tasks. Hence "substantial improvement" is rather doubtful.
6. (b) From the fact that prudent banks are likely to weather the crisis by taking into account these factors.
7. (e) This is clearly a one-off case.
8. (a) This is what skews the risk-reward equation.
9. (b) This is probably what misprices risks.

10. (d) Policy errors are also liable and there is a chance that some of these are political.
11. (a) That's what the entire passage is about.
12. (a) The passage says: "..... the government simply cannot create enough public universities to satisfy the demand".
13. (c) There is no information about developed countries.
14. (d) Probably not if private not-for-profit universities are encouraged.
15. (e) The passage says that "guidelines ... should be made clear, .... " Which means the guidelines are there.
16. (e) China, Japan and India also have robust economies.
17. (d) India and China seem to be in that position.
18. (a) South Korea adopted "outward-oriented economic policies" while India continued with "import substitution policy".
19. (e) Clear from the last sentence of the passage.
20. (b) The Asian growth stories mainly revolve around India and China.
21. (e) The confounding multiplies with the quantum of wealth.
22. (a) Read the fourth sentence.
23. (b) Because there are more investment options at present.
24. (d) Remember the "clutter and noise".
25. (c) No information about fund managers.
26. (e) Consider the following line of the passage: "However, agriculture and allied activities account for less than even one-fourth of the total GDP". Therefore, the inference is definitely false.
27. (e) It is mentioned in the passage that the structure of industrialisation has changed over the years and not over the past few decades.
28. (a) The inference is definitely true.
29. (e) Consider the following line of the passage: "So it is less likely that aggregate economic growth will be adversely affected if rainfall is scanty".
30. (e) It is mentioned in the passage that the component of the manufacturing sector that depends on agriculture for the supply of intermediates is not very high. This does not imply that manufacturing sector is independent of agricultural sector.

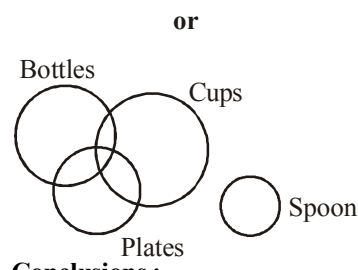
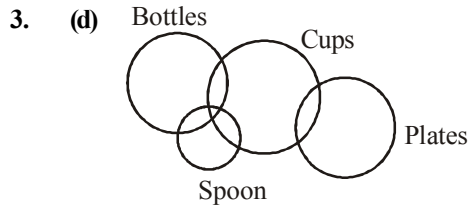
**SPEED TEST 49**



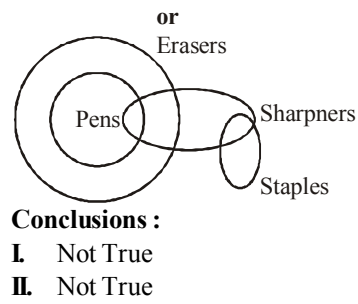
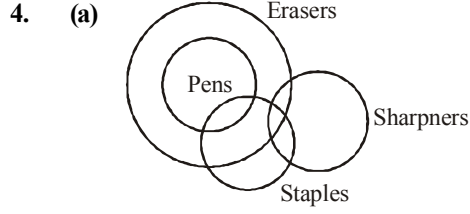
- Conclusions :**  
**I** Not True  
**II** True



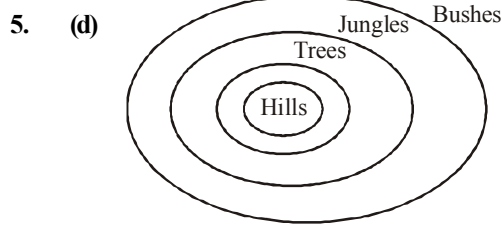
- Conclusions :**  
**I** True  
**II** Not True



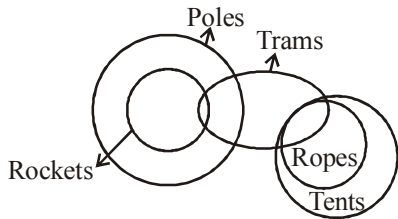
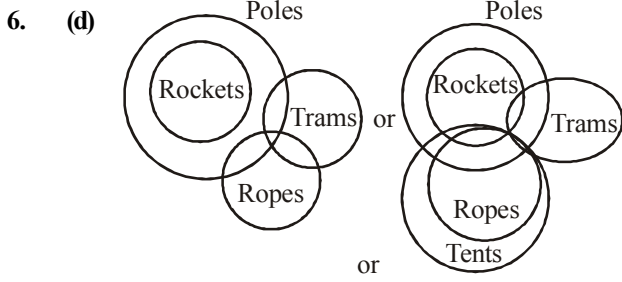
- Conclusions :**  
**I** Not True  
**II** Not True  
 Both conclusions form complementary pair.



- Conclusions :**  
**I** Not True  
**II** Not True

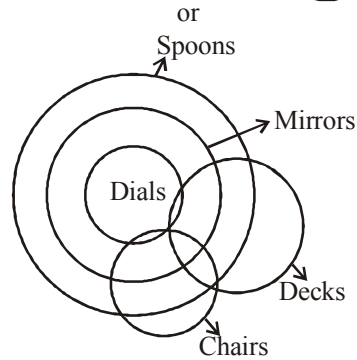
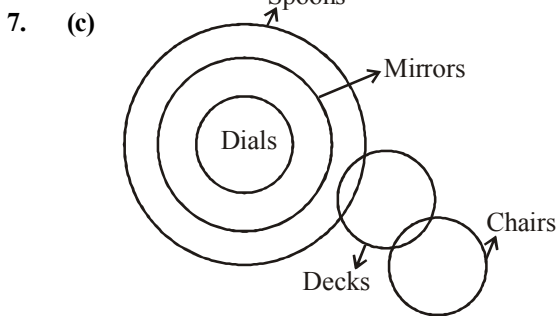


- Conclusions :**  
**I** True  
**II** True



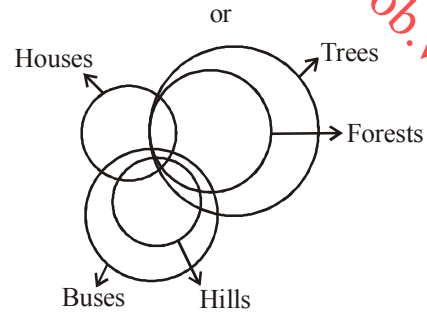
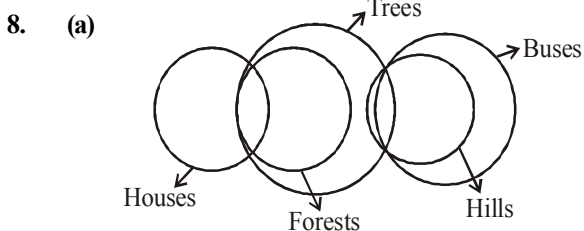
**Conclusions :**

- I True
- II Not True
- III Not True
- IV True



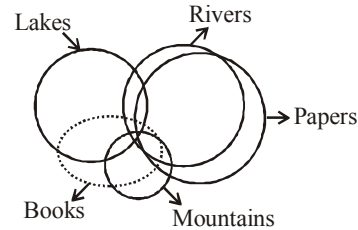
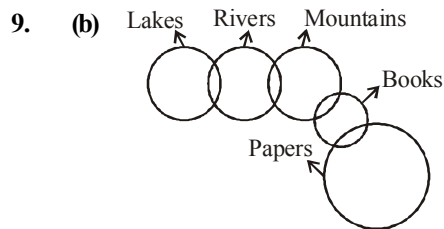
**Conclusions :**

- I Not True
- II True
- III Not True
- IV Not True



**Conclusions :**

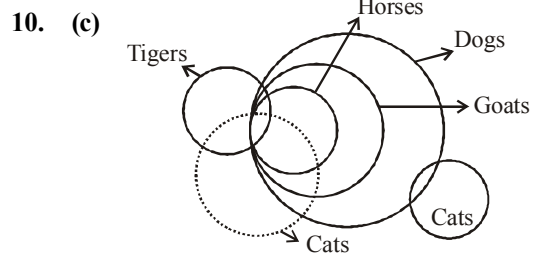
- I True
- II True
- III Not True
- IV Not True



**Conclusions :**

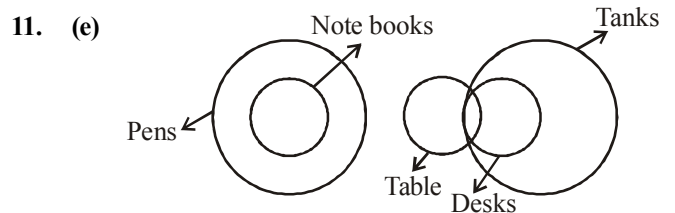
- I Not True
- II Not True
- III Not True
- IV Not True

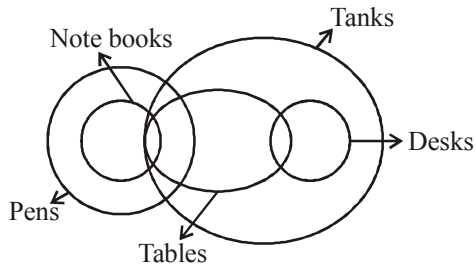
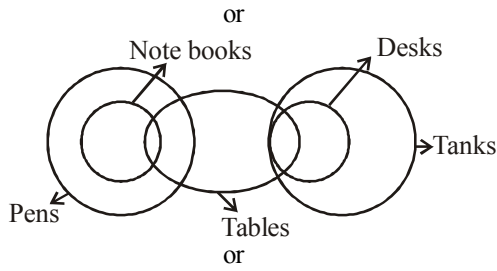
Hence, II & IV conclusions form complementary pair.



**Conclusions :**

- I Not True
- II True
- III True
- IV Not True

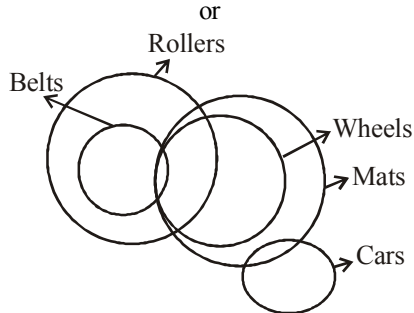
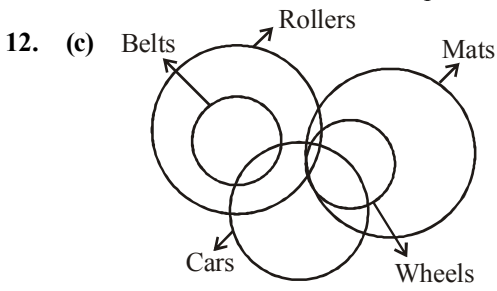




**Conclusions :**

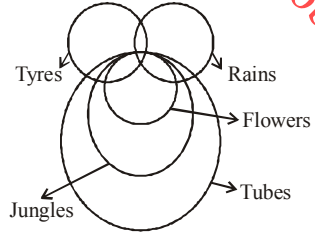
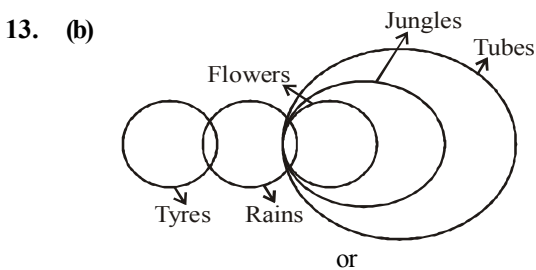
- I Not True
- II Not True
- III True
- IV Not True

As I and IV conclusions complement to each other.



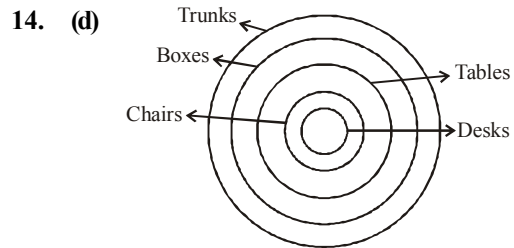
**Conclusions :**

- I True
- II Not True
- III Not True
- IV True



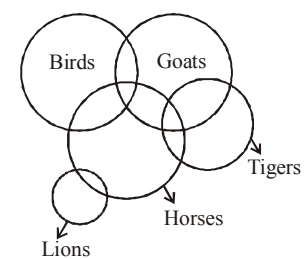
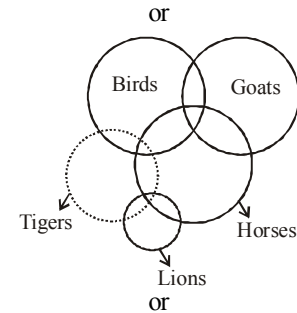
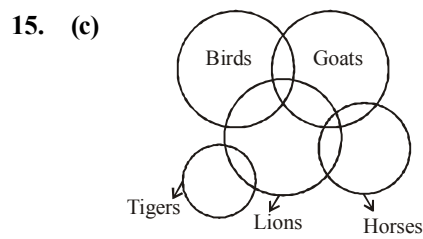
**Conclusions :**

- I Not True
- II True
- III True
- IV True



**Conclusions :**

- I True
- II True
- III True
- IV True

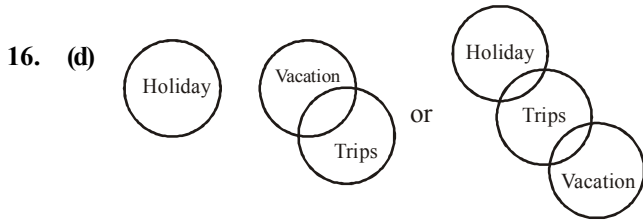


**Conclusions :**

- I Not True
- II Not True
- III Not True
- IV Not True

Since, conclusion I and II, and III and IV form complementary pair.

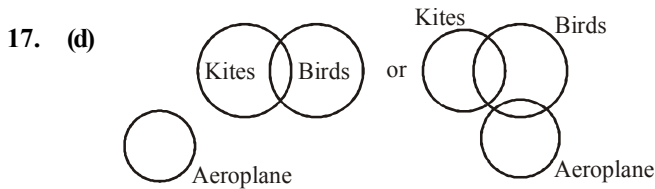




**Conclusions :**

**I** Not True

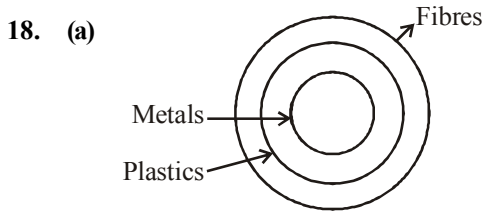
**II** Not True



**Conclusions :**

**I** Not True

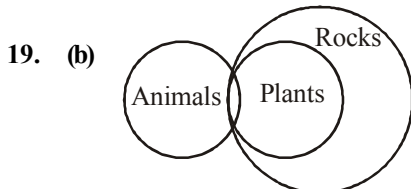
**II** Not True



**Conclusions :**

**I** True

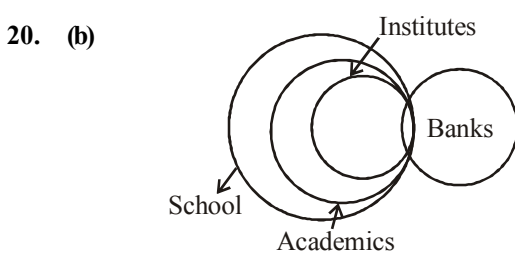
**II** Not True



**Conclusions :**

**I** Not True

**II** True

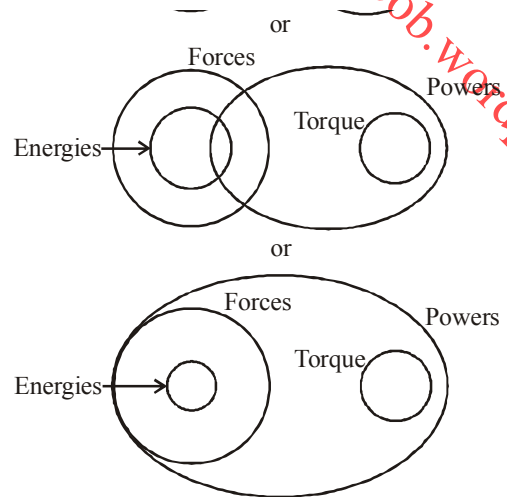
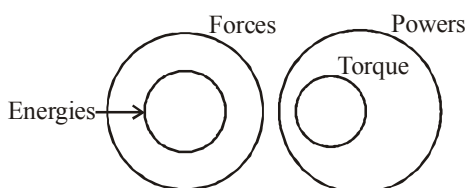


**Conclusions :**

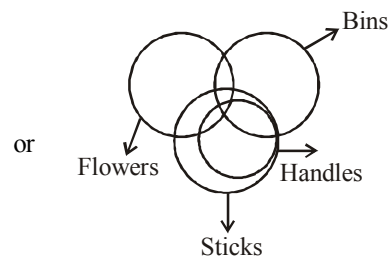
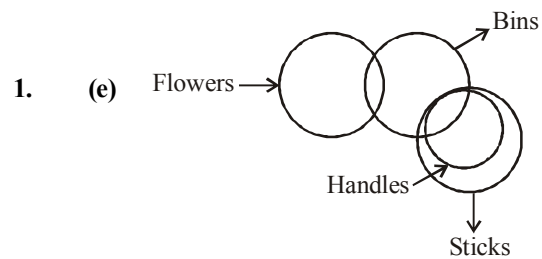
**I** Not True

**II** True

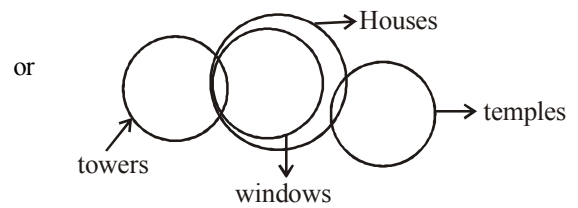
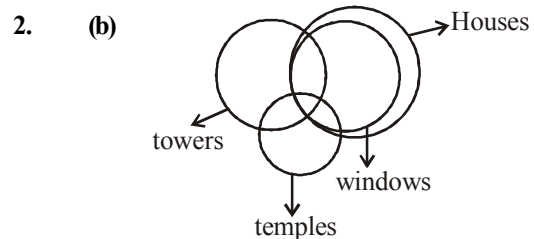
Sol. (21-22) :



**SPEED TEST 50**

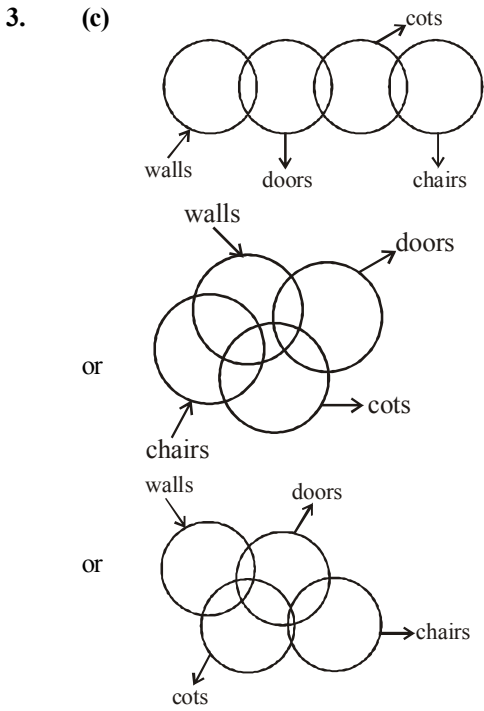


**Conclusions**  
**I** : True  
**II** : Not true  
**III** : Not true



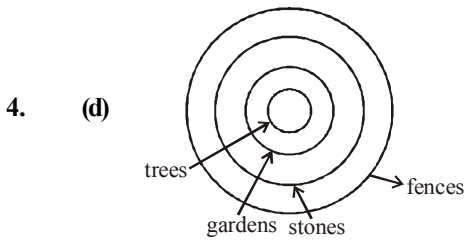
**Conclusions**  
**I** : Not true  
**II** : True  
**III** : Not true

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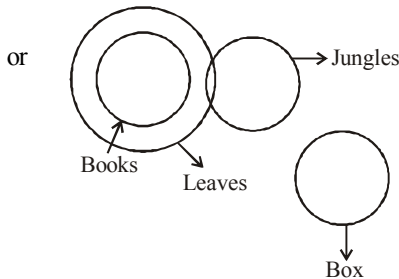
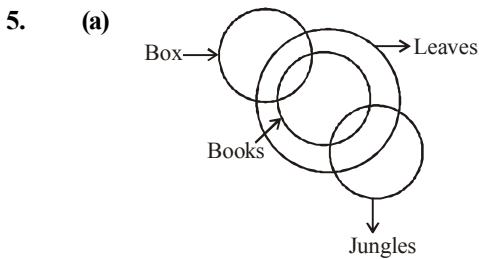


**Conclusions** I : Not true  
II : Not true  
III : Not true

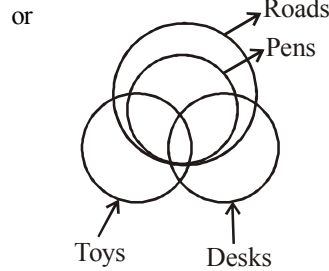
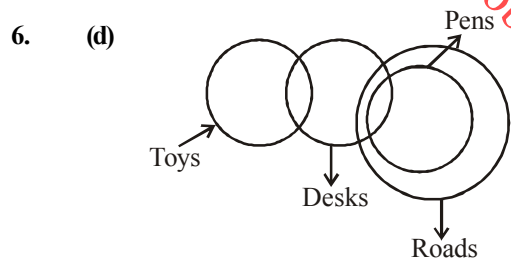
As conclusions I and III complement to each other.



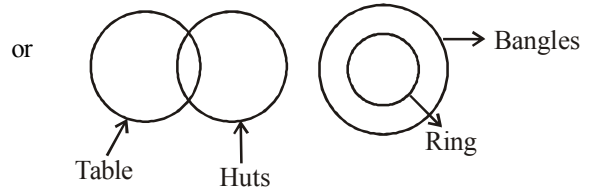
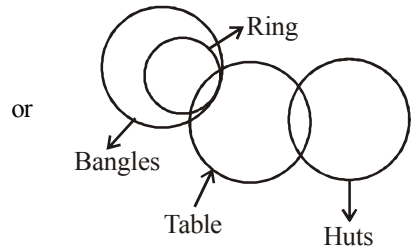
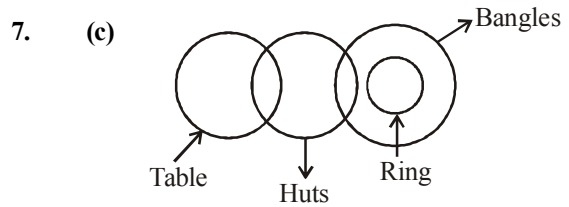
**Conclusions** I : True  
II : True  
III : True



**Conclusions** I : Not true  
II : Not true  
III : Not true

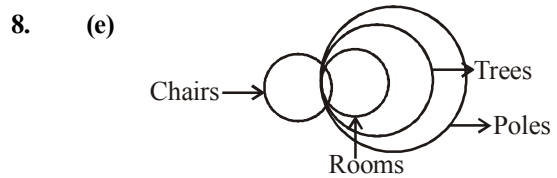


**Conclusions** I : Not true  
II : Not true



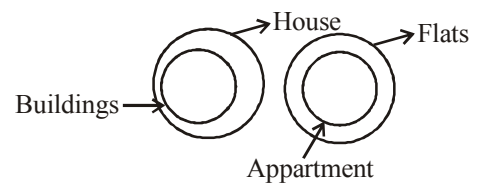
**Conclusions** I : Not true  
II : Not true

Since, conclusion I and II form complementary pair. Therefore, either (I) or (II) follows.

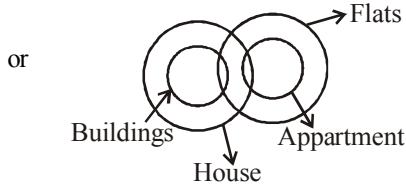


**Conclusions** I : True  
II : True

(Qs. 9-10)



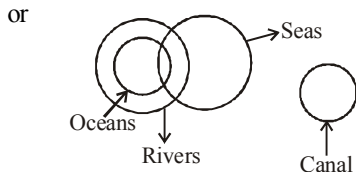
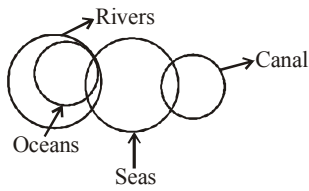
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9. (b) **Conclusions I:** Not true  
**II:** True

10. (d) **Conclusions I:** Not true  
**II:** Not true

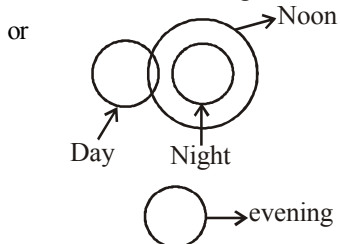
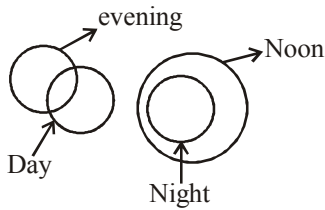
(Qs. 11-12)



11. (d) **Conclusions I:** Not true  
**II:** Not true

12. (e) **Conclusions I:** True  
**II:** True

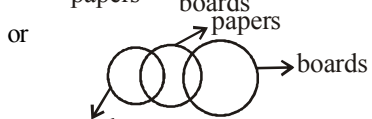
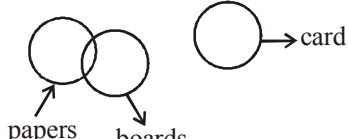
(Qs. 13-14)



13. (d) **Conclusions I:** Not true  
**II:** Not true

14. (a) **Conclusions I:** True  
**II:** Not true

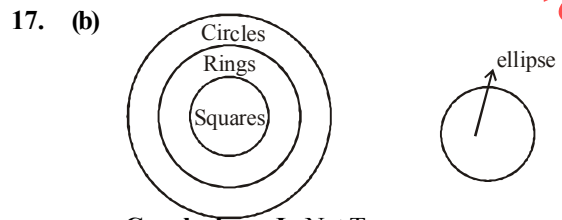
(Qs. 15-16)



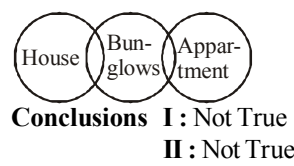
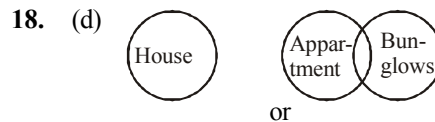
15. (c) **Conclusions I:** Not true  
**II:** Not true

Since conclusions I and II form complementary pair.

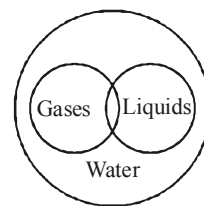
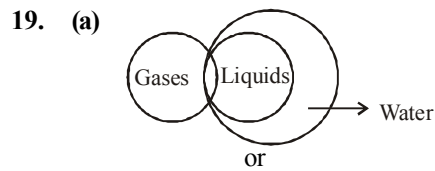
16. (d) **Conclusions I:** Not true  
**II:** Not true



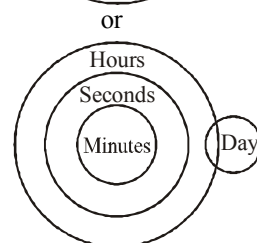
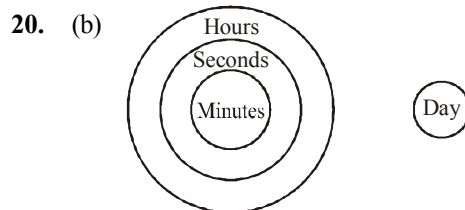
**Conclusions I:** Not True  
**II:** True



**Conclusions I:** Not True  
**II:** Not True

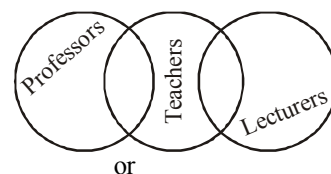


**Conclusions I:** True  
**II:** Not True

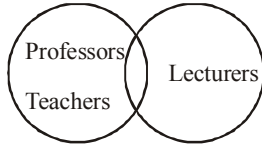


**Conclusions I:** Not True  
**II:** True

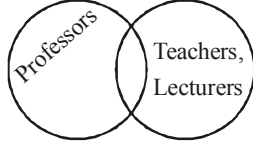
(21-22)



or

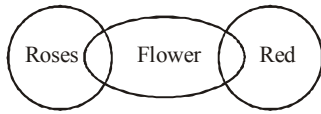


or

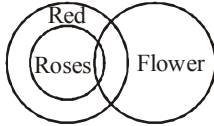


21. (a) **Conclusions I:** True  
**II:** Not True
22. (b) **Conclusions I:** Not True  
**II:** True

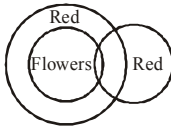
(23 - 24): Possible venn diagram are



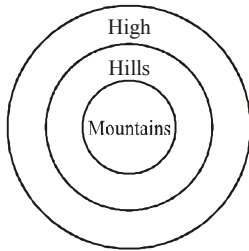
or



or



23. (d)
24. (a)
25. (a) A possible Venn diagram is



**SPEED TEST 51**

(Sol. 1-5):

In step I, the word that comes last in the alphabetical order comes to the first place, pushing the rest of the line rightward. In step II, the largest number comes at the second place, pushing the line rightward. Thus, words and numbers get arranged alternately till all the words are in reverse alphabetical order and numbers in descending order.

1. (d) **Input:** glass full 15 37 water now 85 67  
**Step I:** water glass full 15 37 now 85 67  
**Step II:** water 85 glass full 15 37 now 67  
**Step III:** water 85 now glass full 15 37 67  
**Step IV:** water 85 now 67 glass full 15 37  
**Step V:** water 85 now 67 glass 37 full 15  
Since the arrangement has been done, there will be no step VI.

2. (d) **Step II:** ultra 73 12 16 mail sort 39 kite  
**Step III:** ultra 73 sort 12 16 mail 39 kite  
**Step IV:** ultra 73 sort 39 12 16 mail kite  
**Step V:** ultra 73 sort 39 mail 12 16 kite  
**Step VI:** ultra 73 sort 39 mail 16 12 kite  
**Step VII:** ultra 73 sort 39 mail 16 kite 12  
Hence, Step VI will be the last but one.
3. (d) We can't work backward in an arrangement type.
4. (c) **Step II:** tube 83 49 34 garden flower rat 56  
**Step III:** tube 83 rat 49 34 garden flower 56  
**Step IV:** tube 83 rat 56 49 34 garden flower  
**Step V:** tube 83 rat 56 garden 49 34 flower  
**Step VI:** tube 83 rate 56 garden 49 flower 34
5. (a) **Input:** hunt for 94 37 good 29 48 book.  
**Step I:** hunt 94 for 37 good 29 48 book  
**Step II:** hunt 94 good for 37 29 48 book  
**Step III:** hunt 94 good 48 for 37 29 book  
**Step IV:** hunt 94 good 48 for 37 book 29

(Sol. 6-10):

In each step, one word gets arranged from the left and one from the right. Note that words starting with vowels get arranged from the left and those starting with consonants get arranged from the right. This goes on in such a manner that finally we have vowel-starting words arranged in reverse alphabetical order followed by consonant-starting words arranged in reverse alphabetical order.

**Input:** gem stat ace cast omit fan rate uncut era input  
**Step I:** uncut gem stat ace omit fan rate era input cast  
**Step II:** uncut omit gem stat ace rate era input fan cast  
**Step III:** uncut omit input stat ace rate era gem fan cast  
**Step IV:** uncut omit input era stat ace rate gem fan cast  
**Step V:** uncut omit input era ace stat rate gem fan cast

6. (c) 7. (a) 8. (a) 9. (d) 10. (e)
- (Sol. 11-15):

**Input:** for 52 all 96 25 jam road 15 hut 73 bus stop 38 46  
**Step I:** all for 52 25 jam road 15 hut 73 bus stop 38 46 96  
**Step II:** bus all for 52 25 jam road 15 hut stop 38 46 96 73  
**Step III:** for bus all 25 jam road 15 hut stop 38 46 96 73 52  
**Step IV:** hut for bus all 25 jam road 15 stop 38 96 73 52 46  
**Step V:** jam hut for bus all 25 road 15 stop 96 73 52 46 38  
**Step VI:** road jam hut for bus all 15 stop 96 73 52 46 38 25  
**Step VII:** stop road jam hut for bus all 96 73 52 46 38 25 15

11. (b) **Step IV:** hut for bus all 25 jam road 15 stop 38 96 73 52 46 Eighth from the right – road.
12. (c) 13. (c)
14. (a) **Step V:** jam hut for bus all 25 road 15 stop 96 73 52 46 38 Sixth from the left is 25

15. (d)  
(Sol. 16-21):

In the first step, the word that comes first in the reverse alphabetical order comes to the first place and the rest of the line shift rightward. In the next step, the largest number occupies the next place and the rest of the line shifts rightward. This goes on alternately till the words get arranged in the reverse alphabetical order and the numbers in a descending order.

16. (b) **Step III:** year 92 ultra 15 23 strive house 39  
**Step IV:** year 92 ultra 39 15 23 strive house  
**Step V:** year 92 ultra 39 strive 15 23 house  
**Step VI:** year 92 ultra 39 strive 23 15 house  
**Step VII:** year 92 ultra 39 strive 23 house 15  
Hence,  $7 - 3 = 4$  more steps will be required.

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17. (c) **Input** : any how 49 24 far wide 34 69  
**Step I** : wide any how 49 24 far 34 69  
**Step II** : wide 69 any how 49 24 far 34  
**Step III** : wide 69 how any 49 24 far 34  
**Step IV** : wide 69 how 49 any 24 far 34  
**Step V** : wide 69 how 49 far any 24 34  
**Step VI** : wide 69 how 49 far 34 any 24  
Hence step V will be the last but one.
18. (d) We can't proceed backward
19. (d) **Input** : play over 49 37 12 match now 81  
**Step I** : play 81 over 49 37 12 match now  
**Step II** : play 81 over 49 now 37 12 match  
**Step III** : play 81 over 49 now 37 match 12  
Since the line is already arranged, there will no 4th step
20. (b) **Step II** : war 58 box cart 33 49 star 24  
**Step III** : war 58 star box cart 33 49 24  
**Step IV** : war 58 star 49 box cart 33 24  
**Step V** : war 58 star 49 cart box 33 24  
**Step VI** : war 58 star 49 car 33 box 24

**SPEED TEST 52**

(Sol. 1-6):

In step I, the largest number goes to the extreme left and the rest of the line shifts rightwards. In the next step the word that comes first in alphabetical order goes to the second position from the left and the rest of the line shifts rightwards. Thus the numbers and the words get arranged alternately till all the numbers are in descending order and all the words in alphabetical order.

1. (c) **Input** : show 51 36 new far 81 46 goal  
**Step I** : 81 show 51 36 new far 46 goal  
**Step II** : 81 far show 51 36 new 46 goal  
**Step III** : 81 far 51 show 36 new 46 goal  
**Step IV** : 81 far 51 goal show 36 new 46  
**Step V** : 81 far 51 goal 46 show 36 new  
**Step VI** : 81 far 51 goal 46 new show 36  
**Step VII** : 81 far 51 goal 46 new 36 show  
Thus step VI will be the last but one.
2. (e) **Input** : home turf 39 24 86 44 roll over  
**Step I** : 86 home turf 39 24 44 roll over  
**Step II** : 86 home 44 turf 39 24 roll over  
**Step III** : 86 home 44 over turf 39 24 roll  
**Step IV** : 86 home 44 over 39 turf 24 roll  
**Step V** : 86 home 44 over 39 roll turf 24  
**Step VI** : 86 home 44 over 39 roll 24 turf  
Thus step VI will be the last.
3. (a) **Step II** : 76 ask 12 32 begin over join 42  
**Step III** : 76 ask 42 12 32 begin over join  
**Step IV** : 76 ask 42 begin 12 32 over join  
**Step V** : 76 ask 42 begin 32 12 over join  
**Step VI** : 76 ask 42 begin 32 join 12 over  
Thus  $6 - 2 = 4$  more steps will be required.
4. (b) **Step IV** : 58 box 47 dew 15 21 town pot  
**Step V** : 58 box 47 dew 21 15 town pot  
**Step VI** : 58 box 47 dew 21 pot 15 town  
Thus step VI will be last.
5. (d) We can't proceed backward.
6. (e) **Input** : buy win task 52 38 43 door 12  
**Step I** : 52 buy win task 38 43 door 12  
**Step II** : 52 buy 43 win task 38 door 12  
**Step III** : 52 buy 43 door win task 38 12  
**Step IV** : 52 buy 43 door 38 win task 12

(Sol. 7-12):

In the first step, the smallest number comes to the left most position and the remaining line shifts rightward. In the next step, the word that comes last in the alphabetical order occupies the second position from the left and the remaining line shifts rightward. This goes on alternately till all the numbers are arranged in ascending order and all the words in reverse alphabetical order at alternate positions.

7. (c) **Input** : 89 bind 32 goal house 61 12 joy  
**Step I** : 12 89 bind 32 goal house 61 joy  
**Step II** : 12 joy 89 bind 32 goal house 61 joy  
**Step III** : 12 joy 32 89 bind goal house 61  
**Step IV** : 12 joy 32 house 89 bind goal 61  
**Step V** : 12 joy 32 house 61 89 bind goal  
**Step VI** : 12 joy 32 house 61 goal 89 bind
8. (c) **Step II** : 15 yes 62 51 48 talk now gone  
**Step III** : 15 yes 48 62 51 talk now gone  
**Step IV** : 15 yes 48 talk 62 51 now gone  
**Step V** : 15 yes 48 talk 51 62 now gone  
**Step VI** : 15 yes 48 talk 51 now 62 gone
9. (e) **Step III** : 21 victory 30 joint 64 47 all gone  
**Step IV** : 21 victory 30 joint 47 64 all gone  
**Step V** : 21 victory 30 joint 47 gone 64 all  
 $5 - 3 = 2$  more steps will be required
10. (e) **Input** : win 92 task 73 59 house range 34  
**Step I** : 34 win 92 task 73 59 house range  
**Step II** : 34 win 59 92 task 73 house range  
**Step III** : 34 win 59 task 92 73 house range  
**Step IV** : 34 win 59 task 73 92 house range
11. (e) **Input** : save 21 43 78 them early 36 for  
**Step I** : 21 save 43 78 them early 36 for  
**Step II** : 21 them save 43 78 early 36 for  
**Step III** : 21 them 36 save 43 78 early for  
**Step IV** : 21 them 36 save 43 for 78 early  
Hence step III will be last but one.
12. (b) **Input** : desire 59 63 all few 38 46 zone  
**Step I** : 38 desire 59 63 all few 46 zone  
**Step II** : 38 zone desire 59 63 all few 46  
**Step III** : 38 zone 46 desire 59 63 all few  
**Step IV** : 38 zone 46 few desire 59 63 all  
**Step V** : 38 zone 46 few 59 desire 63 all

(Sol. 13-20):

In step I the least number comes to the left most position, pushing the rest of the line rightward. In step II the word that comes last in the alphabetical order shifts to second from left, pushing again the rest of the line rightward. Similarly, in step III the second least number shifts to third from left. In step IV the second from last in the alphabetical order comes to the fourth position. And this goes on alternately till all the numbers are arranged in ascending order and the words in reverse alphabetical order.

- Step V : jam hut for bus all 25 road 15 stop 96 73 52 46 38  
Step VI : road jam hut for bus all 15 stop 96 73 52 46 38 25  
Step VIII : stop road jam hut for bus all 96 73 52 46 38 25 15
13. (c) **Step II** : 18 task bear cold dish 81 63 31  
**Step III** : 18 task 31 bear cold dish 81 63  
**Step IV** : 18 task 31 dish bear cold 81 63  
**Step V** : 18 task 31 dish 63 bear cold 81  
**Step VI** : 18 task 31 dish 63 cold bear 81  
**Step VII** : 18 task 31 dish 63 cold 81 bear
14. (d) **Input** : 72 59 37 go for picnic 24 journey  
**Step I** : 24 72 59 37 go for picnic journey  
**Step II** : 24 picnic 72 59 37 go for journey

- Step III** : 24 picnic 37 72 59 go for journey  
**Step IV** : 24 picnic 37 journey 72 59 go for  
**Step V** : 24 picnic 37 journey 59 72 go for  
**Step VI** : 24 picnic 37 journey 59 go 72 for
15. (a) **Input** : nice flower 34 12 costly height 41 56  
**Step I** : 12 nice flower 34 costly height 41 56  
**Step II** : 12 nice 34 flower costly height 41 56  
**Step III** : 12 nice 34 height flower costly 41 56
16. (d) **Step II** : 16 victory 19 36 53 store lake town  
**Step III** : 16 victory 19 town 36 53 store lake  
**Step IV** : 16 victory 19 town 36 store 53 lake  
 Since the line is already arranged, there will be no fifth step.
17. (d) We can't work out backward.
18. (b) **Input** : milk pot 18 24 over goal 36 53  
**Step I** : 18 milk pot 24 over goal 36 53  
**Step II** : 18 pot milk 24 over goal 36 53  
**Step III** : 18 pot 24 milk over goal 36 53  
**Step IV** : 18 pot 24 over milk goal 36 53  
**Step V** : 18 pot 24 over 36 milk goal 53  
**Step VI** : 18 pot 24 over 36 milk 53 goal  
 Hence step V is the last but one.
19. (a) **Step III** : 36 win 44 95 86 ultra box queen  
**Step IV** : 36 win 44 ultra 95 86 box queen  
**Step V** : 36 win 44 ultra 86 95 box queen  
**Step VI** : 36 win 44 ultra 86 queen 95 box  
 Hence  $6 - 3 = 3$  more steps will be required
20. (a) **Input** : new 22 model 27 pump 38 11 join  
**Step I** : 11 new 22 model 27 pump 38 join  
**Step II** : 11 pump new 22 model 27 38 join  
**Step III** : 11 pump 22 new model 27 38 join  
**Step IV** : 11 pump 22 new 27 model 38 join

**SPEED TEST 53**

1. (a) Assumption I is implicit because it is this that makes us import sugar *in spite of* the increase in the number of sugar factories. But II is not implicit because "future" is beyond the scope of the statement.
2. (b) Compensation is a way of sympathizing with the victims, not a deterrent to terrorism. Hence II is implicit but I is not.
3. (a) Assumption I is implicit because only then the switching over makes sense. But II need not be an assumption. The switching over may have been prompted by economic factors or those of convenience.
4. (b) Assumption I is ruled out because of the word *only*. But II is implicit because without considering this factor relocation won't make sense.
5. (a) Assumption I is implicit as the govt's moves are generally aimed at protecting the interests of the masses. But II is not implicit because of "any other way". There might be other means of gambling which the govt does not consider significantly detrimental for the people.
6. (b) When one applies for leave, one assumes that it would be granted. Hence I is not implicit. But Assumption II is implicit because only then period of "two years" assumes meaning.
7. (a) When you instruct someone to do something, you assume that he may do it. Hence I is implicit and II is not.
8. (e) Assumption I is implicit as this is the purpose assumed while levying the tax. II is also implicit because when a

- rule is framed, it is assumed that people are capable of following it.
9. (a) Assumption I is implicit in "at their own cost" Assumption II is contrary to what the citizens may have assumed.
  10. (d) Were it assumed that the employees might leave, such a decision would not be taken. Hence Assumption I is not implicit. Assumption II is not implicit because "next year" is present nowhere in the picture.
  11. (e) Both are implicit in Mr. X's instructions to his assistant.
  12. (b) II is implicit as it serves the purpose of introducing AC buses. Contrary to this, I is not implicit as it defeats the purpose.
  13. (a) I is implicit because whenever a scheme is announced, it is assumed that people will welcome it. II is not implicit. Had fear been there on the mind of the govt, it would have refrained from introducing such a scheme.
  14. (d) I is not implicit because an announcement is made with the assumption that it will be positively received. It is not implicit because the municipal authority is not covered by the ambit of the statement.
  15. (d) If the response does not come, as Assumption I says, the ad won't make sense. Hence I is not implicit. II is not implicit; hence the qualification "with good communication skills".
  26. (a) All these assumptions are in directions contrary to what the statement says.
  27. (c) Whenever such a decision is taken, the assumptions are that it would be welcome and allowed to implement.
  28. (c) The urging of the govt makes sense only when (A) and (B) are implicit.
  29. (b) The decision to auction assumes response to it. Hence (A) is not implicit. Unless the private entities are capable, the decision would make no sense. Hence (B) is implicit. (C) is implicit as without financial benefit, private entities would not turn up for the auction.
  30. (b) (A) must be implicit to make the request meaningful. The govt is out of picture here. Hence (B) is not implicit. (C) is not implicit as the case may be only of delay, not of cancellation of flight.

**SPEED TEST 54**

1. (a) Only conclusion I seems to be reasonable. Considering the different nature of IT Companies different parameters should be employed for rating. It is not necessary that if separate rating agency is established for IT companies the investors will get protection of their investment. Therefore, conclusion II does not follow.
2. (a) By increasing the manufacturing capacity the Company "Y" would compete reasonably on the cost front. And, as such it can improve the quality of its products. Hence, conclusion I follows. Conclusion II seems to be an assumption.
3. (b) Considering the amount of loss incurred by Public Sector Units it seems to be true that the Government did not take care in the matter of investment in the Public Sector Units. The use of term "only" in the conclusion I makes it invalid.
4. (b) Clearly, only conclusion II follows. It is not clear how the population of developing countries will not increase in the future.

5. (c) It is mentioned in the statement that Mr. X has been declared successful in the preliminary screening for the post of Director of KLM Institute. Therefore, either he will be selected or will not be selected as Director of KLM Institute.
6. (d) II may be an assumption which the professor is assuming before passing his statement but it definitely cannot be a conclusion. Hence II does not follow. I may or may not be possible. Hence I does not follow.
7. (b) It is clear that either there is no facility for health insurance available or it is available for only affluent sections. Hence I cannot be definitely concluded. II follows from the given statement, as 'limited resources' of the person suggests that he will go to a hospital which provides treatment on nominal charges or free.
8. (a) Only conclusion I follows. The statement talks about dedicated ordinary doctors but that in no way infers that extra ordinary specialists are not dedicated to their profession. So conclusion II follows. I is true in the context of the scenario prevailing in the country.
9. (c) Either I or II can follow. As the government would be reviewing the diesel prices in light of the spurt in the international oil prices, the govt can either decide to increase or keep the price stagnant (increasing subsidy.)
10. (d) The availability of vegetables is not mentioned in the given statement. So, I does not follow. Also, II is not directly related to the statement and so it also does not follow. Probably the demand is surpassing the supply.
11. (d) I and II are assumptions and not conclusions.
12. (d) The statement does not say why the poor societies suffer. Hence I does not follow. II also does not follow because the statement merely states a fact; it does not look into the merits of the fact.
13. (c) As Praveen has not yet returned, he might have got killed or might have survived. Hence (c) is the correct option.
14. (b) Nothing has been said in the statements which imply that VCRs are now manufactured indigenously. Therefore, I is invalid. Since import licence on VCR's has been withdrawn, they can be now freely imported.
15. (d) Nothing of the sort can be concluded as given in two conclusions on the basis of the statements.
16. (d) Both of the conclusions are invalid.
17. (b) Unless absolute figures are given, no conclusion of the type I can be made. Since average no. of students per teacher (60) in rural areas is higher than the average no. of students per teacher (50) in urban areas, we can conclude that more students study with the same teacher in the rural areas as compared to those in the urban areas.
18. (d) This statement does not mention anything about healthy people. Neither does it mention about evening walks. Hence none of the conclusions follows.
19. (a) Only this can balance the equation.
20. (e) All the given choices would lead to an increase in the number of visits to health facilities.
2. (d) (A) would be an extreme step. (B) is not within the govt's purview. (C) is advisable when there is retrenchment on such a large scale.
3. (b) (A) is not feasible in a democracy. (C) does not follow because the problem is not concerned with "criminals". (B) is the only course the authorities can resort to.
4. (a) (A) would be a step in the right direction: it would ensure that hunger does not deprive children of education. (B) is escapism. (C) is absurd.
5. (d) (A) does not make sense unless it be known that these officials are the culprits. (B) is necessary to prevent such incidents in the future. So is (C).
6. (b) I and III would be too harsh; II is absurd. Efforts should be made to supervise the quality of the food prepared by the canteen.
7. (a) I is the right course. II and III would create a bigger problem, viz pollution.
8. (d) II is for the immediate future, III is for some time ahead. I does not follow because of the word "immediately".
9. (b) II would suffice; hence no need to go for I.
10. (c) Both of these are solutions to traffic jam but both together may not be feasible or necessary.
11. (b) I is an extreme step but II should bring things under control.
12. (b) I is not practical. II is necessary.
13. (b) Again, I is not practical.
14. (b) I is simply absurd. II follows as a solution to the complicated paperwork.
15. (b) I is easier said than done. Even I makes sense only when the govt goes for II.
16. (b) I is impractical. Water is essential for life to go on. II is sensible, especially when using ground water is proving to be uneconomical.
17. (a) I is the obvious course of action. But II is absurd: punishment for thieves is understandable. But how can you punish - "all the students"?
18. (d) I is simply absurd. But even II is not the solution.
19. (b) Only course of action II seems to be appropriate. In case of severe drought food, water and fodder become scarce and in such a situation these items should be sent immediately to the affected areas to save the people and cattle. At a glance, the course of action I too seems to be suitable for pursuing. But the use of term "immediately" makes it invalid.
20. (e) Both courses of action are suitable for pursuing. Do not get confused by the use of the term "all" in the first course of action. Since, murder of a large number of people is not a usual event. Therefore, course of action I is also suitable.
21. (b) Only course of action II is suitable for pursuing. Since capsuled Vitamin E has not any deleterious effect on human body, it is not proper to ban the sale of capsuled Vitamin E.
22. (b) Only course of action II is suitable for pursuing. The first course of action may aggravate the situation further. Therefore, it is not suitable for pursuing.
23. (a) Only course of action I seems to be appropriate for pursuing. It is not desirable to achieve something by undue means.
24. (e) Both the courses of action are suitable for pursuing considering the visit of a large number of people.
25. (b) The first course of action does not match the scale of the problem. The problem is not so big as to merit a govt enquiry. It is enough that the civic body take action and hence II follows.

**SPEED TEST 55**

1. (a) The alarming situation is pretty obvious. So a review committee is not required. Hence I does not follow. Water crisis is not the concern of the statement. Hence II does not follow. Merely two days of downpour does not merit "relief supplies"; one assumes there is not a flood-like situation as yet. Hence III does not follow.

- 26. (e) I will help in cure while II will help in prevention.
- 27. (a) II is an extreme action and hence does not follow. I is a proper course of action. Note that taking immediate steps is not the same as immediate removal of the constructions, which may again have been considered to be an extreme course of action.
- 28. (d) If the rainfall is normal, it does not mean we would deprive the farmer of his due. The actions may be deemed to be correct only if we know that they are the reversal of policies which had been framed during crisis years.
- 29. (e) Both the courses of action will help increase the population of dolphins.
- 30. (a) Being "not as attractive as promoted" is a clear case of hiding things. Hence "transparency" is the answer to the problem and I follows. II goes against the spirit of free market and is not relevant to the problem either.

- 23. (b) Lack of projects has led to the lay-off
- 24. (a) The attractive schemes are attempts to boost sales.
- 25. (d)
- 26. (b) Job market is an important consideration in determining the curriculum of schools.
- 27. (e) There seems to be some common cause that is leading to deterioration in both kinds of education.
- 28. (e) Hike in fuel prices seems to be the common cause.
- 29. (a) The effect is a win-win solution to this cause.
- 30. (c) Tax is only one component of the price. So, the increase in price will be there but the increase percentage will be lower.

**SPEED TEST 56**

- 1. (b) The pressure of the social activists has led to the banning.
- 2. (d) The two are contradictory and must be the effects of independent causes.
- 3. (b) The large number of terrorist attacks has led to tightened security checks.
- 4. (a) The court order has led to the urgent work.
- 5. (b) The flood has led to epidemics.
- 6. (d) In fact, the two statements seem to have contrary causes.
- 7. (b) The fighting has led to the closure of the shops.
- 8. (e) It seems the price of petroleum has increased in general. Alternatively, subsidies may have been reduced, again a cause common to both the statements.
- 9. (a) The cyclone is expected to cause heavy rains.
- 10. (a) The poor performance of the students has led to the exit of the professor.
- 11. (b) Statement B is the cause and statement A is its effect. Owing to agitation against high fees the Government appointed a committee to look into the matter.
- 12. (b) Statement B is the cause and statement A is its effect. Owing to reduction in the procurement price of Kharif crops the farmers are reluctant to sell their Kharif crops to Government agencies.
- 13. (b) Statement B is the cause and statement A is its effect. Owing to inability of the small banks to withstand the competitions of the bigger banks the Reserve Bank of India put restrictions on few small banks.
- 14. (d) Both the statements A and B are effects of independent causes.
- 15. (e) Both the statements are effects of some common cause.
- 16. (b) In order to check the menace of poor eating habits, schools have banned the sale of fast food.
- 17. (e) Both are effects of a common cause the recession.
- 18. (a) The unhealthy competition leads to the negative mindset that is responsible for suicide.
- 19. (d) (A) is the result of global warming. (B) is the result of tectonic shifts.
- 20. (c) Both are independent causes.
- 21. (b) Changes in wind pattern have caused increase in temperature.
- 22. (a) The motorists' hardship has led to the municipal sanction.

**SPEED TEST 57**

- 1. (d) The shifting of the elements takes place in such a way that the change is completed in four steps. So the change from figure five to six will be similar to the change from figure one to figure two.
- 2. (a) In each step, two pairs of elements get changed, beginning from the upper left and lower right. The change takes place in three successive steps.
- 3. (c) The main design rotates respectively through 45° clockwise, 180° and 90° anticlockwise after every two figures. The shaded leaflet rotates through 45° clockwise, 90° clockwise, 135° clockwise, 45° anticlockwise and 90° anticlockwise.
- 4. (d) Watch the rotation of each element separately. The triangle rotates by 90° ACW and 180°. The circle rotates 45°, 135°, 90° CW 45° CW ... 'C' rotates 45°, 90°, 135°, 180° CW.
- 5. (b) In each step elements interchange in pairs while one element beginning from one end is replaced by a new one. The line of orientation rotates by 45° ACW.
- 6. (d) In each step the elements of the upper row shift from left to right in cyclic order while elements of the lower row shift from right to left in cyclic order.
- 7. (b) In each step, the whole figure rotates by 45° ACW. The middle element interchanges with elements on either side alternately while the third element is replaced by a new one.
- 8. (c) In each step the whole figure rotates by 90° ACW while one of the end elements is replaced alternately on either side.
- 9. (a) In the first step the elements shift from the upper left to lower right → middle left → upper right → lower left → upper left. In the next step the elements shift one step CW in cyclic order.
- 10. (e) In each step the upper element rotates by 90° ACW. The lower element gets inverted and a curve is added to it on the upper side.
- 11. (d) In alternate steps the elements shift one-and-a-half sides CW while one of the elements beginning from the ACW end gets replaced by a new one in each step.
- 12. (b) In each step the whole figure rotates by 90° CW while one element is added in each step alternately on CW and ACW end.
- 13. (b) In each step the whole figure rotates by 90° ACW and an arc is added on the CW side.
- 14. (b) In each step the triangles rotate by 90° CW. The shading of the right triangle changes alternately. The shadings of the middle and left triangles change in each step in a set order.
- 15. (a) In each step the quadrilateral rotates by 90° ACW while it shifts half a side CW alternately.



**SPEED TEST 58**

1. (a) From problem figure (4) to (5) the lower design is reversed laterally while the other design moves to the opposite side. Similar changes would occur from problem figure (2) to (3).
2. (a) Symbol changes positions as shown in both the diagrams alternately and symbols in place of the sign '•' remain unchanged in each of the successive figure.



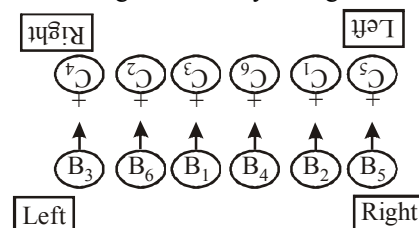
Figure (1) to (2)      Figure (2)

3. (c) Each symbol of the figure rotates in Anticlockwise and a new symbol replaces the symbol at the top which is inverted alternatively in each of the successive figures.
4. (e) From problem figure (1) to (2), first and second figure interchange their position and are reversed at the new positions and at the same time, third figure remains unchanged. From problem figure (2) to (3), second and third figures interchange their positions and are reversed at the new position and the figure (1) remain unchanged. The same problem is repeated alternatively.
5. (a) In each step, both the line segments close to the sides of the hexagon, move to the adjacent sides in a Clockwise. Also the line segments at the corner move to the adjacent corner Clockwise and their number increases by one, in the first, third, fifth steps.
6. (c) In each subsequent figure the main design rotates through 90° clockwise and the line segment comes out of the main design alternately after moving respectively one and two sides in anticlockwise direction alternately.
7. (b) In the subsequent figures the design rotates through 45° and 90° clockwise alternately and half leaflet is added ahead and behind of the main design alternately.
8. (c) In each subsequent figure all the designs move half step in clockwise direction and two designs are replaced with new design while in the third step three designs are replaced with new designs.
9. (d) In each figure two designs are either outside or inside the main design.
10. (e) In each subsequent figure all the designs move half step in anticlockwise direction. The triangle rotates through 90° clockwise after every two figures. All other designs change in each subsequent figure and after three figures the same pattern is repeated.
11. (e) From element I to II the design rotates through 180°
12. (b) From element I to II the design is mirror image after being rotated through 90° clockwise.
13. (c) From element I to II the design is enclosed by another design.
14. (e) From element I to II the upper design encloses the lower design.
15. (d) From element I to II the design is divided into four equal parts and the lower left part becomes shaded.
16. (a) The upper 1 left element rotates by 90° CW while the other four rotate by 90° ACW.
17. (b) The whole figure rotates by 90° ACW. The first and the third, and the second and the fourth elements interchanged places.

18. (e) The first column from left becomes the second row from top. The second column from left becomes the lower row. The third column goes to the top while the fourth column becomes the third row. One element each is added in the first and second row from top while one element each is reduced from the third and fourth row from top.
19. (d) The whole figure rotates by 45° ACW while the end element gets inverted.
20. (c) The upper left rotates by 45° CW and the lower left rotates by 45° ACW. The upper right rotates by 135° CW and the lower right by 135° ACW.
21. (e) In alternate steps the whole figure rotates by 90° and 45° ACW while one end element changes side.
22. (c) In each step the whole figure rotates by 90° CW. A new element appears at ACW side while other two shift one step towards CW side.
23. (e) In each step two line segments are added and the whole figure gets inverted.
24. (c) In alternate steps the elements of smaller square interchange diagonally while the outer elements shift one step ACW.
25. (b) The crossed square shifts  $\frac{1}{2}, 1, 1\frac{1}{2}, 2, \dots$  sides CW while the central element is replaced by a new one.
26. (c) For the square follow if 1 = 5 then 2 = 6 rule. In alternate steps the lower-row elements go to the upper row and new elements appear in the lower row.
27. (b)
28. (b) In each step the corner elements rotate 90° CW and shift one side ACW alternately. The middle figure rotates 180° and 90° CW alternately.
29. (e) In alternate steps the upper left shifts to centre → lower right → upper left. The upper right shifts to right middle → upper-middle → upper right and lower left → left middle → lower middle → lower left.
30. (e) In each step the side arrow rotates 90° CW and shifts one side CW. The smaller arrow rotates 45° ACW and the larger arrow 45° CW alternately.

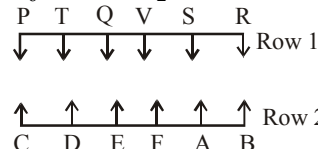
**SPEED TEST 59**

(1-4) The arrangement of boys and girls:



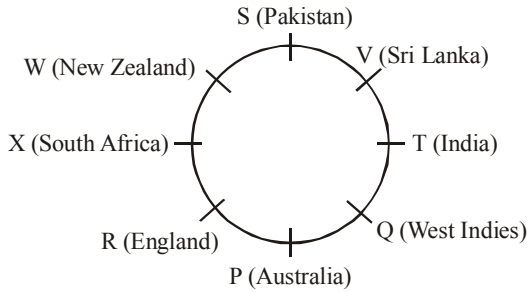
1. (d) The girl C<sub>6</sub> is facing the boy B<sub>4</sub>.
2. (b) The following pairs of boys and girls are at the extreme ends.  
B<sub>3</sub> C<sub>4</sub>, B<sub>5</sub> C<sub>5</sub>, B<sub>3</sub> C<sub>5</sub>, B<sub>5</sub> C<sub>4</sub>
3. (a) B<sub>1</sub> is to the immediate left of B<sub>4</sub>.
4. (b) B<sub>6</sub> is facing C<sub>2</sub>.

(5-10) :



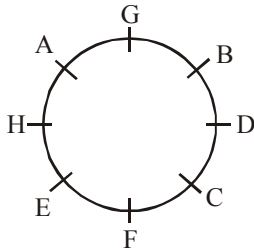
5. (c) 6. (e) 7. (b)  
 8. (a) 9. (e) 10. (d)

(11-16):



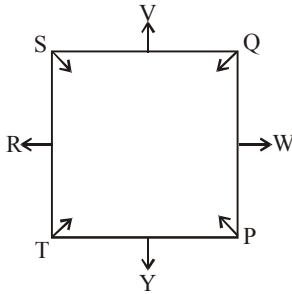
11. (c) 12. (a)  
 13. (b) There is pattern of going from the second member of a pair to the first member of the next pair. +2, +3, +4... CW.

14. (c) 15. (d)  
 (25-29):



25. (a) 26. (b) 27. (d) 28. (e) 29. (c)

(30-34):



30. (b) 31. (c)  
 32. (d) Others sit in the middle of the sides.  
 33. (a) Move  $1\frac{1}{2}$ , 2,  $2\frac{1}{2}$ , 3 ... sides clockwise on the square.  
 34. (c)

**SPEED TEST 30**

1. (c) Since life expectancy depends on genetic make-up migration can't enhance it.  
 2. (c) This dents the reliability factor.  
 3. (e) 4. (c)  
 5. (c) Once the trials are over, availability of material, management and other resources is necessary to maintain production schedule.  
 Thus, option I will strengthen the chairman's decision. Option II is not related to the statement. Option III will strengthen the decision because a better network of dealers and complete formalities would be good for sale and thus for the company.  
 6. (a) Read the last statement of the paragraph,

7. (e) Conclusion : Public education has deteriorated in the last 50 years. Evidence : The inability of high school seniors to compose a business letter. (e) strengthens the argument by adding meaning to the evidence. If 80 percent of seniors could write acceptable business letters 50 years ago, and only 50 percent of today's seniors can do so, then the conclusion is more believable.  
 8. (e) Coolidge, it's argued, won't benefit from introducing a new cereal since doing so will merely "steal" its own customers away from other Coolidge brands. Anything that demonstrates that Coolidge may actually benefit from introducing a new brand will weaken this argument, and (e) does exactly that. If introducing a new brand will attract buyers of competitor's cereals, Coolidge will have succeeded in increasing its overall customer base without cannibalizing its own product.  
 9. (b) Anything alleging the possibility of keeping abreast of friends' well-being at a distance would seriously weaken the argument. (b) presents a way in which friends can live apart from one another and still keep in contact.  
 10. (c) The correct choice is (c) – the author assumes that excessive pressure, because it's offered as one sure cause, is the *only possible* cause, even though there may be others.  
 11. (d) The argument stated in the information is that all animal actions are a result of an interaction between experiences and genotype. Therefore, if all experiences and genotype are identical, all actions will also be identical. This is mentioned in option (d).  
 12. (d) The given passage says (1) media supplies the stuff of thought.  
 (2) it shapes the process of thought.  
 (3) internet has reduced our capacity to concentrate → this is stated/exemplified in (d). Therefore, it strengthens the given argument.  
 13. (e) Statement (e) says that the younger judges who have ready access to internet have become better at judging complex and intricate cases. This implies that their capacity to concentrate has improved which negates the argument given in the passage.  
 14. (d) The theme of the passage says that when soldiers are subjected to high pressure situations even in simulated warfare, their naturalistic decision making capacity/ability is not compromised. Statement (i) and (ii) clearly negate the above notion. (iv) suggests that individual and naturalistic decision making ability is lost. (v) says that officers believe more in experience of soldiers than simulation based training. This makes (d) the correct choice.  
 15. (c) The author is not happy with the huge amount of expenses incurred in research of things which have no

use in day to day life. (c) weakens this argument because we can apply something to the use of mankind only if we have the knowledge of it.

16. (e) The passage clearly emphasizes that practising Hatha-Yoga is really difficult and only a few resolute souls go through all the stages of its practice (refer sentence 3). So E strengthens the idea of the passage. C and D are out of context as the passage doesn't talk about Yoga schools teaching Raja Yoga. A and B are also out of context as they restrict themselves to people in a given ashram.
17. (b) A person seeking to refute the argument might argue that managing big organization is more challenging than small. The reason being the CEO of any organization whether it is big or small has similar kind of duties and responsibilities but the CEO of big organization has more complex nature of work.
18. (a) If the given statement that CEO of small organization come from good educational background is true it will strengthen the speaker's argument, the reason being the speaker wants that CEOs of big and small organizations should be paid similarly and if the CEO of small organization comes from good educational background they should receive a similar amount which a CEO of big organization receives.
19. (a) The argument is essentially that the proposed law makes no sense because knitting needles are dangerous as well. The argument relies explicitly on an analogy between hypodermic and knitting needles. Thus, the two must be similar in all respects relevant to the argument. Otherwise, the argument is unconvincing. (a) affirms that knitting needles are in fact dangerous, thereby affirming the analogy between the two types of needles.  
(b) and (c) each in its own way supports the bare assertion that the proposed law might not be effective. However, none of these answer choices affirms the argument's essential reasoning.  
(d) actually *weakens* the argument, by providing a reason why hypodermic needles and knitting needles are *not* relevantly similar.
20. (d) Provides an alternate source of the Raynhu bark. Even though the tree is rare in the wild, the argument is silent on the availability of cultivated trees. The author of the argument must be assuming that there are no Raynhu trees other than those in the wild, in order to make the leap from the stated evidence to the conclusion that the Raynhu is headed for extinction. The option (d) weakens the assumption - 'there are limited raynhu trees' - by saying that there are other ways as well for the propagation of Raynhu. The other answer choices all contain information that is irrelevant. Note that the correct choice does not make the conclusion of the argument impossible. In fact, it is possible that there may be domesticated Raynhu trees and the species

could still become extinct. Answer choice (d) is correct because it makes the conclusion about extinction less likely to be true.

## SPEED TEST 61

- (a) The problems of beggars cannot be solved by sending them to villages. Therefore, argument I seems to be forceful.
- (a) Argument I seems to be forceful.
- (d) The mention of the term 'only' in argument I makes it invalid. Argument II is also invalid.
- (d) Neither of the arguments is forceful.
- (a) Argument I seems to be forceful.
- (d) Neither of the arguments is forceful. It is true that privatisation may make institutes of Technology financially healthy and competitive considering the prevalent trend of market. But it cannot be taken as universally true. Hence, argument I is not forceful. The second argument lacks any substance and hence it is not forceful.
- (a) Taking into account the fact that a large number of cases are pending in the courts for a long time, it is desirable that vacations of court judges must be reduced to speed up judicial process. Therefore argument I seems to be forceful. Argument II is based on an example and we know that citing an example is a bad argumentation.
- (d) It is not necessary that if any practice which has been in vogue for long time is right and it must be continued. Therefore, argument I is not forceful. Argument II is partly true and hence it cannot be forceful.
- (d) It is an established fact that higher qualification could not be only criteria for any kind of promotion in an organisation. Other factors are also equally important. It is very difficult to assess the higher qualification and other factors on the same scale. Therefore, neither of the arguments is forceful.
- (d) Neither of the arguments is forceful. None of the arguments holds strong vis-a-vis the statement.
- (d) None of the arguments is forceful. The census activities take a few days and the loss incurred in the classes can be compensated by organising extra classes or pruning the holidays. Therefore, argument I is not forceful. Other persons may also accomplish the task of census very well. Therefore, argument II is also not forceful.
- (a) Only argument I holds forceful. In the present context the solution of any major problem lies in the proper dialogue between the concerned parties. Argument II is based on individual's opinion and hence it cannot be forceful.
- (d) None of the argument is forceful. The employees may raise their demands by other means also.

14. (b) Only argument II is forceful. Unauthorised constructions create many other problems. The people may be shifted to some regularised colonies.
15. (d) The use of the word "only" in the argument I makes it invalid.  
The policy of open market advocates privatisation. Each country is opening its market for foreign investors. How, privatisation will pose a threat to national security?
16. (b) Argument I makes no sense. If the income of farmers are not adequate they cannot be brought under the net of taxation as per rules governing the Income Tax Act. Therefore, argument I is not forceful.  
Argument II seems to be forceful. In order to increase revenue the government should bring more persons under the net of taxation. Argument III is also forceful.
17. (e) Only arguments I and II are forceful. The Government is keen to introduce the VAT (Value Added Tax) which is the system envisaging simplified tax structure. A single tax will check the double taxation and manufacturers as well as traders will be encouraged to pay taxes.  
Argument III is an example. We know that citing an example is bad argumentation.
18. (e) Only argument II is forceful.
19. (a) None of the arguments is forceful. The use of term 'only' in the argument I makes it invalid.
20. (a) None of the arguments is forceful.

**SPEED TEST 62**

(Sol. 1-5) :

The machine rearranges one number and one word in each step. It picks even numbers and odd numbers alternately, starting with even numbers, and arranges even numbers in ascending order and odd numbers in descending order from left to right. Words are arranged in reverse alphabetical order from right to left.

**Input :** virus 11 inter 52 16 arm keep 47 wind 22 quick 31 66 luck

**Step I.** 16 virus 11 inter 52 arm keep 47 22 quick 31 66 luck wind

**Step II.** 16 47 11 inter 52 arm keep 22 quick 31 66 luck virus wind

**Step III.** 16 47 22 11 inter 52 arm keep 31 66 luck quick virus wind

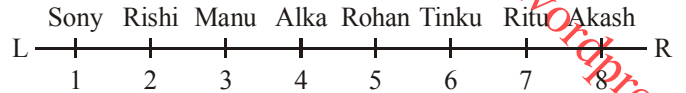
**Step IV.** 16 47 22 31 11 inter 52 arm 66 keep luck quick virus wind

**Step V.** 16 47 22 31 52 11 arm 66 inter keep luck quick virus wind

**Step VI.** 16 47 22 31 52 11 66 arm inter keep luck quick virus wind

1. (c)                      2. (b)                      3. (b)  
4. (b) (n+1)th term of step V is related to nth term of step VI.  
5. (a)

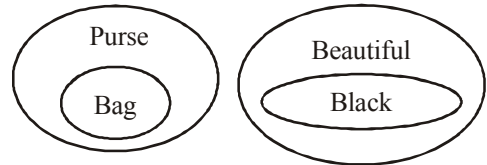
Sol. (Qs. 6-10) :



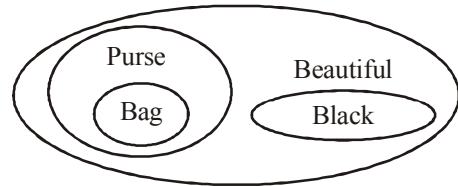
6. (d)    7. (b)    8. (c)    9. (b)    10. (c)

(Sol. 11-12):

Possible Venn-diagrams are



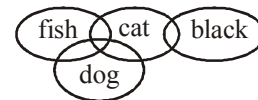
11. (b) Thus, only II follows.  
12. (e) Another possible Venn-diagram is



Both I and II follow.

(Sol. 13-15):

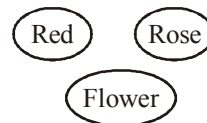
Possible Venn-diagram is



or



13. (e) Both I and II follow.  
14. (d)  
15. (d) Possible Venn-diagram –

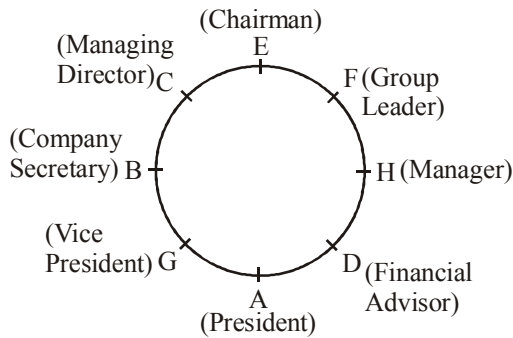


Thus neither I nor II follows.

(16-20) :

Member	Country	Sport
K	China	Archery
T	USA	Football
F	France	Volleyball
L	Australia	Athletics
J	Russia	Tennis
R	Korea	Rifle Shooting
H	Japan	Boxing

16. (d) 17. (d) 18. (a) 19. (b) 20. (b)  
 (21-27):



21. (d) 22. (e) 23. (a)  
 24. (d) 25. (c) 26. (e)  
 27. (b)  
 28. (c) Even (C) can be inferred only probably.  
 29. (e) If the infrastructure does not exist, the deal will be a wastage of money.  
 30. (b) Getting connected by air is bound to have an impact on road traffic.  
 31. (d) Takes care of the compatibility factor and (A) states the advantage over other competing planes.  
 32. (e) Note that the “separate lane” decision is an incentive. Now an incentive is given with a motive in mind (Assumption I) and with the hope of people falling for it (Assumption II).  
 33. (e) Assumption I is implicit in the invitation Assumption II is implicit in the request Manish makes to his mother.  
 34. (b) Assumption I is not implicit because adverse impacts area not assumed. II is implicit in the period of suspension being six months.  
 35. (a) Assumption I is implicit because such an announcement is made with the hope that people will heed to it. For the same reason, Assumption II is not implicit.  
 36. (d) With such negative assumptions, the statement would lose its meaning.  
 37. (b) Sentence B is an obvious inference because of the use of words ‘are now’ in the first sentence of the given paragraph. That means, the village was earlier not self sufficient.  
 38. (c) Lack of new advancements and technologies developments because of a lack of urban intervention proves that intervention from urban counterparts can lead to new advancements and technological developments and benefit the village.

39. (a) The formation of groups by residents to initiate self-help micro-credit programme, as mentioned in sentence A, represents the step which helped the process of liberalisation and empowerment of the villages.  
 40. (e) Success experienced by the residents of the village Kenal has made them idols to be pursued for. This result is aptly depicted in sentence D.  
 41. (e) A proper course of action would be serving notices to these clubs to behave themselves. Even police personnel may be deployed, but only during the sensitive hours.  
 42. (b) I and III would be too harsh; II is absurd. Efforts should be made to supervise the quality of the food prepared by the canteen.  
 43. (a) I is the right course. II and III would create a bigger problem, viz pollution.  
 44. (d) II is for the immediate future; III is for some time ahead. I does not follow because of the word “immediately”  
 45. (c) I would be punishing the brave. II is absurd; how can city flights be diverted? Only III makes sense.  
 46. (e) From Problem Figure (1) to (2) the shaded block moves one sector in anticlockwise direction and one more block gets shaded. From Problem Figure (2) to (3) the shaded blocks move two sectors in anticlockwise direction and one more block gets shaded. Similar changes occur from Problem Figure (4) onwards.  
 47. (d) From Problem Figure (1) to (2) one design moves diagonally after being rotated through 90° anticlockwise, the square moves one-half step and shaded part of it also moves in anticlockwise direction. Similar changes occur from Problem Figure (3) to (4) and from Problem Figure (5) to Answer Figure.  
 48. (e) In the subsequent figures respectively two, three, one, two three curves are added in clockwise direction to complete the leaflets.  
 49. (d) The following changes occur in the subsequent figures :  
 (1) to (2) (2) to (3),  
 (3) to (4) (4) to (5)  
 (5) to (6)



50. (d) After Problem Figure (3) the pattern is repeated in the reverse order and the outer line segment moves to the opposite side.

**SPEED TEST 63**

1. (b) imperial means of an empire or its rulers, adamant means firmly or stubbornly, determinedly.
2. (c) Verbose means using or containing more words than are needed, ambiguous means having more than one meaning.
3. (c) heritage
4. (c) Once I fall ill, it takes me long to recuperate. That is, I take a long time to recover my health or strength after I have been ill. Convalesce is another synonym of recuperate. Convalescence is the period or process of becoming healthy and well again after an illness or operation.
5. (b) You are familiar with the word tenuous. Attenuate also comes from the same Latin root tenuis (= thin). If you attenuate something, you make it slender or thin; you reduce it in force or value.
6. (c) If you abstain from something, you deliberately do not do it. Abstinence, however, is a particular kind of abstaining—that from alcoholic drink, sex etc, often for health or religious reasons. If you abstain from drinking, you do not get drunk. Abstinence does not refer to “drink” only.
7. (d) A taciturn person is not dumb. A dumb person can't speak. A taciturn person can speak but does not want to. In other words, he maintains a reserve.
8. (d) One who is blithe is carefree and cheerful.
9. (d) You are captivated by something attractive; It fascinates you.
10. (c) Government servants are not allowed to receive money from any other job. Suppose an income-tax officer desired to edit this book. He would then have to be the honorary editor of this book. That is, he cannot receive any payment as wages for editing the book. An honorary job is thus unpaid for.
11. (b) If you visualise something, you imagine what it is like by forming a mental picture of it. You may visualise future events as well, your wedding for example. You thus foresee your wedding.
12. (a) From Akbar to Aurangzeb, every Mughal emperor went on annexing one kingdom or another to what they inherited. In other words, each of them added to his father's empire.
13. (d) A menage is a group of people living together in one house. In other words, a household.
14. (c) If something is firm, it is strong enough to maintain its balance. Infirmary therefore suggests weakness.
15. (d)            16. (a)            17. (b)            18. (c)
19. (e)            20. (b)            21. (e)            22. (d)
23. (e)            24. (c)            25. (a)            26. (b)
27. (d)            28. (a)            29. (a)            30. (b)

**SPEED TEST 64**

1. (b)            2. (d)            3. (d)            4. (b)
5. (c)            6. (d)            7. (a)            8. (a)
9. (a)            10. (c)            11. (d)            12. (d)
13. (c)            14. (d)            15. (c)            16. (d)

17. (a)            18. (c)            19. (c)            20. (a)
21. (c)            22. (c)            23. (b)            24. (c)
25. (d)            26. (c)            27. (c)            28. (b)
29. (c)            30. (a)

**SPEED TEST 65**

1. (b) Replace have been by has been. A 'band' – collective noun is used as singular.
2. (c) Replace 'are' by 'is'. 'The number' takes singular verb.
3. (d) Replace 'has been' by 'have been'. Subject, manager's comments – plural so plural verb will be used.
4. (c) Replace 'was' by 'were'. Subject of the verb – details – is plural.
5. (c) Replace 'passes' by 'pass'. The noun after 'of' (writers) is plural so the verb will also be plural.
6. (c) Replace 'mind is due' by 'mind are due'.
7. (c) Replace 'are' by 'is'. The noun after 'of' (mango) is singular so the verb will also be singular.
8. (e) No error.
9. (c) Replace 'have' by 'has'. Governing body – collective noun – so verb singular.
10. (d) Replace 'their' by 'its'. The banker's association – collective noun – so pronoun 'its' singular.
11. (b) Replace 'are' by 'is'. 'five quintals' refers a definite quantity (as collective noun) so verb will be singular.
12. (a) Replace 'have' by 'has'. Dickens is the name of a person.
13. (d) Insert 'are' after 'hopes'. Hopes is plural, so verb will be plural.
14. (a) Place be after may.
15. (b) Replace 'richest man' by 'richest men'.
16. (a) Replace 'We can almost get' by 'we can get almost'.
17. (c) Replace 'drink' by 'drinks'. Every 'Each' takes singular verb.
18. (b) Replace 'is' by 'are'.
19. (b) Replace man by men.
20. (b) Replace 'were' by 'was'.
21. (b) Replace 'are' by 'is'. Horse and carriage refers one thing as a unit so takes singular verb.
22. (b) Replace 'are' by 'is'. Rice and fish used as a unit takes singular verb.
23. (b) Replace 'I can help you' by 'can I help you'. With 'under no circumstances' inversion is applied.
24. (c) Replace 'nor she does' by 'nor does she', Inversion is applied here.
25. (d) Replace 'so John is' by 'so is John'. Inversion is applied here.
26. (a) Write never had I been. Inversion is applied here.
27. (b) Write must this switch., Inversion is applied here.
28. (a) Write Seldom had I seen. With Seldom/Hardly/Rarely/Scarcely/Never, Inversion is applied.
29. (e) No error
30. (b) Replace he created by did he create. Inversion is applied here.

**SPEED TEST 66**

1. (c) Delete 'into'.

2. (d) Delete 'to'.
3. (a) Change it to 'apparent to'.
4. (a) Change it to 'Proposed to'.
5. (c) Change among to between. Between is used for two.
6. (d) and about the poor.
7. (c) Correct phrase is 'blind in'.
8. (b) Replace among by amongst.
9. (c) Delete with.
10. (b) Place of after admits.
11. (c) Place of after loss.
12. (d) Change 'to' by 'for'.
13. (d) Replace for by of after worthy.
14. (c) Delete 'on'.
15. (a) Change 'decline of' to 'decline in'.
16. (b) Delete 'for' after order.
17. (c) Place on before 'land'.
18. (c) Delete 'to' before Chennai.
19. (d) Replace 'for' by 'to'.
20. (c) Change 'look for' by 'look after'.
21. (a) Delete for after await.
22. (c) debarred from sending is correct.
23. (a) Do not use of with despite. Despite means inspite of.
24. (a) Change it to 'yielded to'
25. (b) dying of hunger is correct.
26. (c) Change than by 'to'.
27. (d) Change 'by' to 'for'.
28. (b) Change 'to stay in' by 'rather than stay in'. She prefers to write rather than to speak on telephone.
29. (c) Change 'startled by' to 'startled at'.
30. (b) Change 'with' to 'from'.

**SPEED TEST 67**

1. (e) This sentence is correct none of the changes suggested will improve it. So, the option (e) is the correct answer.
2. (e) This sentence is grammatically correct none of the changes suggested will improve it. So, the option (e) is the correct answer.
3. (c) The correct sentence should be read, 'Appollo was worshipped as long as the Roman empire 'lasted' therefore, option (c) is the correct answer. The reason being Apollo was worshipped till the Roman empire was there therefore 'lasted' fits in best, the other two options was continued or ruled are incorrect.
4. (e)                      5. (e)                      6. (b)                      7. (b)
8. (c) 'Leniency' is not the grammatically correct word to be used the correct word is lenient and the only answer choice which uses this word is option (c).
9. (d) None of the given answer choices fit in correctly as some or the other grammatical error is present. The correct form of sentence would be "The government should launch such projects which should reverse the distractive cycle of flood and drought !"
10. (a) Only the first answer choice fits correctly because the sentence is in the past tense where the action 'that is of setting up the committee' is already over.

11. (b) The correct answer choice is (b) because it expresses that the action is complete, i.e. our foreign exchange reserves have increased substantially. The sentence is the form of present perfect tense the 1st answer choice would have fit in if the action would have begun in past and still continued, i.e present perfect continuous tense.
12. (a) Only the answer choice (a) fits correctly because the sentence is simple present tense and if 'will be or would be' is used it becomes a sentence which uses future tense.
13. (e)
14. (c) How the burglar got into ...
15. (b) should be checked ...
16. (d) None of the given answer choices fit in correctly. The correct grammatical form of sentence will be 'People should have their own mechanism .....'.
17. (a) 'him' is not the right usage because it is a possessive pronoun, and in the sentence it is followed by who, which is used to refer. So the pronoun he should be used. He, who has the best rapport with the students.
18. (d) Different is used with 'from' e.g- 'you are different from Ritu'. Than is used for comparisons, e.g., The world is more populated than it was in our time.
19. (d) When we use the word 'hardly', it implies a negative meaning, there is then no need to use not, so the most suitable use is 'he hardly had any friends'.
20. (c) The tense in this sentence should be the present perfect continous because it refers to an action that started at some time in past and continues till the present time so right use is 'have been living in Mumbai.'
21. (a) As a child, should be followed by a phrase that has 'child' as its subject, i.e., as a child I was taken by my parents to visit Jammu & Kashmir or other ways, we can change the first part of the sentence, the second part describes an action so the first should be an adverb clause. Thus when I was child is the most suitable alternative.
22. (a) 'Anyone' implies a person involved. So a personal pronoun will be needed to give conditions later in the sentence, there must be a 'he' or 'one' in the sentence. The noun cannot be in the second person but has to be in the third person because 'Anyone' refers to an unknown third person.
23. (b) would is a modal and its use here is unnecessary. There is a 'would have' in the second part of the sentence but it should not be repeated in the first one, because the use of 'would have' is done as a possibility of an affect of something done in past. So generally would have will be followed by a past perfect verb.
24. (b)                      25. (e)
26. (c) The given sentence is the statement of simple past tense. Hence it should be 'worried' instead of worries.
27. (d) It should be 'took' instead of 'take'.
28. (e) The word think about refers to consider. Hence no correction is required.
29. (d)                      30. (b)

**SPEED TEST 68**

1. (b) and his attention to detail. This sentence uses the correlative pair "Both...and" to present two characteristics. Both characteristics should be in the same form, but one is a possessive pronoun + noun (his determination), while the other is a phrase (the way he paid attention to detail). We need another possessive pronoun + noun: "his attention to detail."
2. (a) and writing poetry. Gerund should be used to complete the sentence.
3. (d) and hardware engineering. This sentence uses the correlative pair "Both...and" to present two characteristics. Both can be connected without using also.
4. (a) or want to put one there. Both the parts of the sentence must be written in the same grammatical form.
5. (c) but sleep, fish and watch movies. Parallelism means that the things in the list must be in the same grammatical form. The items in the list must be all nouns, all infinitives, all prepositional phrases, all gerunds, or all clauses. This sentence is in future tense, so it is better to maintain the same tense.
6. (a) and to have our identification ready. Use parallel structure with elements joined by coordinating conjunctions.
7. (b) to wear shoes, or to eat in the living room. Use parallel structure with elements in lists or in a series.
8. (b) Vikas stayed in hotels that were modern, comfortable and less expensive. If a sentence contains elements related in purpose or structure, be sure these elements are presented in the same grammatical form.
9. (c) The quilt was of a bright color, with small stitches that were neat and evenly spaced. If a sentence contains elements related in purpose or structure, be sure these elements are presented in the same grammatical form.
10. (b) Vicky said that he neither had the time nor the interest in learning to drive.
11. (c) Madhuri learned to blend exotic spices, to substitute ingredients, and to set an attractive table. Parallelism dictates that all the things Madhuri did must be in the same form.
12. (a) everybody: exercise equipment, aerobics classes, and a swimming pool.
13. (a) we were amazed by the snowcapped mountains on one side and the beautiful lakes on the other. Correlative expressions like both, and; not, but; not only, but also; either, or; etc, should be followed by the same grammatical construction. Many violations of this rule can be corrected by rearranging the sentence.
14. (b) desserts are not only fattening, but they are also high in cholesterol. When making comparisons, the things you compare should be couched in parallel structures whenever that is possible and appropriate.
15. (c) subtle color contrasts, intriguing textures and a pleasing balance. Use parallel structure with elements in lists or in a series.

16. (a) He could work on the project as he is both interested in it and familiar with the problems involved. Use parallel structure with elements joined by a correlative conjunction.
17. (b) Bajaj's sewing machine was considered to be very expensive and too complicated for general use.
18. (a) either attend the college or to work in the family business. Correlative pairs such as either...or, neither...nor, not only...but also, and whether...or also require parallelism. When you see one of these pairs in a sentence, check to make sure that the words or group of words immediately following each conjunction are in the same form.
19. (b) Ritik is not only an excellent actor but also a good singer. Use parallel structure with elements joined by a correlative conjunction.
20. (b) We'll never forget the cruel, unsympathetic, short tempered principal, who never had a kind word for anyone. Just like verbs, adverbs and adjectives in a list must agree. Descriptive words are easy to replace with wordy phrases.

**SPEED TEST 69**

- |   |         |         |         |
|---|---------|---------|---------|
| 1. (e)  | 2. (c)  | 3. (d)  | 4. (b)  |
| 5. (d)  | 6. (e)  | 7. (c)  | 8. (a)  |
| 9. (b)  | 10. (a) | 11. (b) | 12. (e) |
| 13. (c)   | 14. (a) | 15. (d) |         |
| 16. (b)   |         |         |         |
| 17. (d)   |         |         |         |
| 18. (e) Technology - Reshaping the Future of Education  |         |         |         |
| 19. (e) None of these   |         |         |         |
| 20. (a) Analyzing the strengths and weaknesses of a student and designing an educational syllabus accordingly |         |         |         |
| 21. (d) The education system is not guided by technology and hence the pace of learning is slow               |         |         |         |
| 22. (c)   |         |         |         |
| 23. (c) One who freely and actively participates in acquiring skills and knowledge in a systematic manner.    |         |         |         |
| 24. (c)   | 25. (b) | 26. (a) | 27. (b) |
| 28. (c)   | 29. (a) | 30. (b) |         |

**SPEED TEST 70**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (b)  | 2. (b)  | 3. (d)  | 4. (d)  |
| 5. (c)  | 6. (c)  | 7. (e)  | 8. (d)  |
| 9. (e)  | 10. (c) | 11. (b) | 12. (b) |
| 13. (a) | 14. (d) | 15. (d) |         |
16. (c) The author wants us to stop debating and implement policies.
  17. (c) Stated in the first paragraph.
  18. (d) Uncertainty about payment is mentioned, hence option (d).
  19. (b) Refer to the second paragraph. "State governments have not implemented agreed plans to ensure repayment when due..."
  20. (a) All the factors are mentioned in the passage.



21. (a) Refer to the third paragraph. "The Delhi model has worked. But it receives no public support."
22. (d) Clearly, populist measures would go against financial wellbeing.
23. (d) It is stated in the passage that the enforcement of the reforms was inadequate.
24. (c) Eminent British economists and political scientists have strongly attacked the tradition of budget secrecy.
25. (e) It leads to the control of public expenditure in order to set realistic taxation implications.
26. (b) He has presented the example of both the open budget system and the secret budget system, practised by various countries and has looked into all their aspects.
27. (d)
28. (e)
29. (a) Sir Richard Clarke was the originating genius of nearly every important development in the British budgeting techniques during the last two decades.
30. (b)

**SPEED TEST 71**

Sol: (Qs. 1-5): Clearly C must be followed by D, which must be further followed by the E as E reiterates the housing shortage and says that the real deficit will be even higher. D and E provide the statistical proof of the staggering task mentioned in C. So this leads us to two options (b) and (d). Among them (b) seems to be more appropriate as B again emphasises on but is being said is A and also that B cannot be the concluding statement of the paragraph. Hence, ABCDE gives the correct arrangement.

1. (a)
2. (b)
3. (c)
4. (d)
5. (e)

Sol. For (Qs.6-10) : The arrangement EABDC is correct.

The paragraph is clearly taking about Goa state and hence E has to be opening sentence is the paragraph. This is followed by A where the phrase, 'is an impressive case in point', which is an example of what is being said in E. A is followed by E as 'a similar agitation' mentioned in B refers to the public activism mentioned in A. B is further followed by D and C.

6. (e)
7. (a)
8. (b)
9. (d)
10. (c)

Sol For. (Q.11-15): The required arrangement is ABDCE.

A is the opening sentence as is clear from the given options. A is followed by B as 'the proposal' mentioned in B is referring to whatever has been talked in A. B is followed by D as D continues to talk about the response mentioned in B. Also note that B mentions a 2 : 1 response against the proposal which is also clear by the 68 : 31 mentioned in D. D is followed by C and C is followed by E. The 'other immigration organizations' mentioned in E clearly states that the previous sentence must have a statement from some other organization, which is the immigration lawyers as mentioned in C.

11. (a)
12. (b)
13. (d)
14. (c)
15. (e)
16. (e)
17. (b)
18. (e)
19. (a)
20. (c)
21. (a)
22. (b)
23. (c)
24. (d)
25. (d)
26. (d)
27. (a)
28. (a)
29. (a)
30. (d)

**SPEED TEST 72**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (d)  | 2. (c)  | 3. (a)  | 4. (e)  |
| 5. (d)  | 6. (a)  | 7. (d)  | 8. (d)  |
| 9. (b)  | 10. (c) | 11. (d) | 12. (e) |
| 13. (a) | 14. (b) | 15. (a) | 16. (c) |
| 17. (d) | 18. (c) | 19. (e) | 20. (a) |
| 21. (e) | 22. (4) | 23. (c) | 24. (a) |
| 25. (d) | 26. (e) | 27. (b) | 28. (c) |
| 29. (c) | 30. (a) |         |         |

**SPEED TEST 73**

- |         |             |         |             |
|---------|-------------|---------|-------------|
| 1. (a)  | 2. (d)      | 3. (b)  | 4. (c)      |
| 5. (b)  | 6. (a)      | 7. (b)  | 8. (d)      |
| 9. (e)  | 10. (c)     |         |             |
| 11. (d) | into        | 12. (a) | around      |
| 13. (b) | translating | 14. (c) | practice    |
| 15. (c) | chance      | 16. (d) | provided    |
| 17. (a) | other       | 18. (e) | off         |
| 19. (e) | hard        | 20. (b) | equilibrium |
| 21. (e) | 22. (b)     | 23. (a) | 24. (e)     |
| 25. (c) | 26. (b)     | 27. (d) | 28. (a)     |

**SPEED TEST 74**

1. (d) [Ordinance = enactment; Ordnance = military stores]
2. (e) The correct word in I is 'reverent' and that in II is 'reverend'.  
[Reverent = respectful; Reverend = respectable]
3. (a) The correct word in II should be 'Antique'.  
[Antic = odd, Antique = old]
4. (a) The correct word in II should be 'effected'.  
[effect = result, affect = to influence]
5. (c) [Wrapt = lost in something, Rapt = enraptured]
6. (d) [Meter = a measuring apparatus, Metre = unit of length]
7. (d) [Urbane = courteous; Urban = pertaining to city]
8. (a) The correct word in II should be 'jealous'.  
[Zealous = full of zeal; Jealous = envious]
9. (a) The correct word in II should be 'migrants'.  
[Emigrant = one who leaves his country to settle in any other country; Immigrant = one who enters a country to settle there]
10. (b) The correct word in I should be 'accede'.  
[Accede = agree; Exceed = surpass]
11. (b) Both (2) and (4), here Alter signifies make different; cause a transformation and change denotes more or less the same. So does modify. On the contrary fix means restore by replacing a part or putting together what is torn or broken while gender means the properties that distinguish organisms on the basis of their reproductive roles.
12. (c) Both (1) and (4) Cryptic and secret are synonyms to the key word mysterious which means of an obscure nature whereas peculiar and queer denotes something odd.

**SPEED TEST 75**

13. (c) All (2), (3) and (4); primitive, Uninitiated and uninstructed are synonyms to naive which means marked by or showing unaffected simplicity and lack of guile or worldly experience while sophisticated means having or appealing to those having worldly knowledge and refinement and savoir-faire.
  14. (e) All (1), (2), (3) and (4) options are more or less same in the meaning.
  15. (e) All (1), (2), (3) and (4); Disposition, inclination, Trend and leaning are synonyms to the key word tendency.
  16. (c) Only (1), (2) and (4), all these three option Future, likely and potential are synonyms to the key word prospective whereas retrospective is just opposite.
  17. (a) Only (1), Insufficiency is the synonyms to the key word deficiency. All three options do not match with the key word.
  18. (b) (b) Both (2) and (4) i.e. Self-respect and self-regard are synonyms to the key word dignity while other options humility and humbleness do not match with the key word.
  19. (a) Only (1) disused is synonyms to obsolete. Other options redundant, Superfluous and surplus have the different meaning.
  20. (b) Both (1) and (4), Observation and Expression are the synonyms to the key word reflection while suspension and outburst differ in meaning.
  21. (a) consolidation is the synonyms to the word integration whereas Intensifying, combination and Heightening do not match with the key word.
  22. (a) Only (4) Nutritious means of or providing nourishment. On the other hand, Tiring, toiling and Tasty do not correspond to the key word.
  23. (c) Both (3) and (4) Obeisance means the act of obeying; dutiful or submissive behaviour with respect to another person and respect denotes an attitude of admiration or esteem. Other options Accomplishment and Flexibility differ in meaning.
  24. (c) Only (1), (3) and (4), all these three options are synonyms to the key word obligation whereas demand has the different meaning.
  25. (e) All (1), (2), (3) and (4), all the four options are close to one another in meaning.
  26. (a) Only (3); Simpatico means easy to like; agreeable and is synonyms to the key word compatible. On the other hand, other options have different meaning and do not match with the key word.
  27. (c) Both (1) and (2) i.e. Disrupt and Break up are equivalent words to interrupt whereas Examination and Progress have the different meaning.
  28. (b) Both (1) and (4) Taunt and Tease are the same in meaning and synonyms to the key word tantalise while spoof and charade denotes a composition that imitates or misrepresents somebody's style, usually in a humorous way.
  29. (e) All (1), (2), (3) and (4); all four options Deadlock, Impasse, Standstill and Dead-end are more or less the same in meaning.
  30. (a) Only (1) Rite means an established ceremony prescribed by a religion; any customary observance or practice whereas all the three options do not conform to the key word ritual.
- 
1. (b) You cannot repel (drive away) comments or criticism, only an attack or onslaught can be repelled. So, the pair of most suited words would be citizens - onslaught
  2. (c) Since, there is a but between the two parts of the sentence, the passive words should be antonyms. (a) and (d), thus, get eliminated never - also do not fit the sense of the sentence properly thus, not - always are the most suitable fillers for the given sentence.
  3. (c) An analysis must be careful, it may or may not be detailed and final. It certainly should not be random, thus, (a) is eliminated of the remaining careful is the most appropriate choice for this sentence.
  4. (c) Graphologist is one who studies handwriting, while a cosmetologist is a person skilled in the art of cosmetics, Beagle is a species of dog and lapidary is a person skilled in polishing of stones.
  5. (b) The second blank could either be voice so (c) and (d) are eliminated. Hypothetic means something that is assumed and titular means a ruler without real authority. So, titular - voice is the appropriate choice of words.
  6. (b) If the particles need no wounding then spanning is their natural property, so the filler for second blank should be synonymous to natural or internal. Radical means drastic, intrinsic is inbuilt or internal, intangible is something that is not available in the physical form, hypothetical is assumed. Thus, intrinsic will be the filler for the second gap.
  7. (b) Apprehend means to arrest, nabbed means to catch, admonish is scolding mildly, the second gap could be filled by either option (a), (b) or (d) renowned means popular for some talent or skill, thus, too can be eliminated. The choice is between (a) and (b), notorious means popular for wrong reason and is, therefore, a more appropriate choice than famous.
  8. (d) Spleen means anger, so, according to the meaning of the sentence, the object should be inanimate (lifeless)
  9. (a), (c) and (d) can be eliminated because intimidations is a noun whereas we have to fill an adjective, inherent will give the sentence a positive meaning whereas it is negative towards compromise. (a) and (b) are available options because unselected and odious are both negative words. Compromise and confusion, although, do not fit well, so (a) will be the answer.
  10. (d) A proposal is 'turned down' not forced down. So, we have to choose from (b) and (d) naivete means inexperience and saphistry means clever reasoning done to mislead. sophistry and turned are the appropriate fillers for the sentence.
  11. (b) Profound (Adjective) means having or showing great knowledge or insight (into a subject).
  12. (c) The sense in which the sentence intends to convey requires that an antonym of word facts is used in the gap. As the word Projectons is most nearly opposite in meaning to facts, so it is the right choice
  13. (e) Mitigate (Verb) means make (something) less severe, violent or painful; moderate: mitigate somebody's suffering anger, anxiety etc.

14. (c) Salubrious (Adjective) means (specially of the climate) health giving : the salubrious mountain air. so, the answer is (c).
15. (d) dubious 16. (a) 17. (b) 18. (d)  
 19. (e) 20. (c) 21. (d) 22. (e)  
 23. (c) 24. (d) 25. (c) 26. (b)  
 27. (a) 28. (d) 29. (d) 30. (a)

**SPEED TEST 76**

1. (d) As a study report is not a legal document it is not binding on anyone. Sentence represents study in a lighter vein so it must not be taken seriously but as the study is done there must be some purpose of it and results at least is taken note of. This logic brings to the option (d) which is correct part to complete the incomplete sentence of passage.
2. (a) Only option (a) seems to be logical for the context. As subsequent part of passage shows how it was a problem to bail out one and to deny other the same resources. Option (d) and (e) are out of place.
3. (a) It is only logical option other options do not follow any logic. If income is less than expenditure is less than income than there is definitely a loss.
4. (a) As the passage says that risk aggregation is new at the beginning of passage it can be inferred that most banks are yet to conceptualize it in their processes.  
Hence option (a) is correct. Option (c) is farfetched conclusion. Option (d) is repetition of what is being stated in passage earlier. So it can not be the answer.
5. (a) Passage is about nonresident Indian entity and its tax deduction. Other options are not in the context of passage as they talk about the things which are not given or can be inferred from the passage.
6. (c) 7. (d) 8. (a) 9. (e)  
 10. (d) 11. (c) 12. (b) 13. (d)  
 14. (c) 15. (a)
16. (c) The passage talks of the consequences of inflation and what is impacted the most by its consequences is the poor, people without social security and pensioners. Hence, (c) is the right answer.
17. (e) seems to be the only logical option as the passage infers credible fiscal consolidation that may only be accompanied with higher capital outlay. Other options are not relevant to the context.
18. (b) As the passage tells about the Reserve Bank undertaking several initiative to better banking experience for the disabled and common man, it has gone for faster grievances redressal mechanism. Other options are just redundant.
19. (c) As the sentence preceding to the blank cites the investment cycle, the option (c) seems to be the most logical. Other options do not fit in the blank.
20. (a) As the passage talks of security features of banknotes, it may possibly tell about the challenge of counterfeit notes; hence option (a) is the correct. Other options do not conform to the blank.

**SPEED TEST 77**

1. (e) 2. (d) 3. (d) 4. (c)  
 5. (a) 6. (c) 7. (b) 8. (b)  
 9. (a) 10. (e) 11. (c) 12. (c)  
 13. (d) 14. (d) 15. (b) 16. (a)  
 17. (e) 18. (e) 19. (b) 20. (c)
21. (e) This sentence is grammatically correct. None of the suggested changes will improve it. So, the option (e) is the correct answer.
22. (c) The correct sentence should read, 'Apollo was worshipped as long as the Roman empire 'lasted' therefore, option (c) is the correct answer. The reason being Apollo was worshipped till the Roman empire was there: therefore 'lasted' fits in best, the other two options was continued or ruled are incorrect.
23. (c) 'Leniency' is not the grammatically correct word to be used; the correct word is lenient and the only answer choice which uses this word is option (c).
24. (b) The correct answer choice is (b) because it expresses that the action is complete, i.e. our foreign exchange reserves have increased substantially. The sentence is the form of present perfect tense. The 1st answer choice would have fit in if the action would have begun in past and still continued, i.e. present perfect continuous tense.
25. (a) Only the answer choice (a) fits correctly because the sentence is in simple present tense and if 'will be or would be' is used it becomes a sentence which uses future tense.
26. (c)
27. (c) The first blank could be filled either by appeal or caters because inhibits means prevents or restraint and panders means satisfying vulgar tastes. So, we have option between (a) and (c) archetypal means of a particular kind while eclectic means choosing from various source. Electric goes well with the meaning of the sentence, so, the proper choice is (c).
28. (b) 'Ways' is the best choices among the four as 'ways to help the paralysed people' is the right usage. Further we need to bypass the damaged or blocked nerves.
29. (b) The second blank could either be voice so (c) and (d) are eliminated. Hypothetic means something that is assumed and titular means a ruler without real authority. So, titular - voice is the appropriate choice of words.
30. (b) If the particles need no wounding then spanning is their natural property, so the filler for second plant should be synonymous to natural or internal. Radical means drastic, intrinsic is inbuilt or internal, intangible is something that is not available in the physical form, hypothetical is assumed. Thus, intrinsic will be the filler for the second gap.
31. (a) scared 32. (e) risk  
 33. (c) damaged 34. (b) express  
 35. (d) real 36. (d) prevention  
 37. (b) discomfiture 38. (b) ignored  
 39. (a) doesn't 40. (b) serious

**SPEED TEST 78**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (a)  | 2. (d)  | 3. (c)  | 4. (d)  |
| 5. (a)  | 6. (e)  | 7. (e)  | 8. (c)  |
| 9. (d)  | 10. (c) | 11. (b) | 12. (b) |
| 13. (d) | 14. (e) | 15. (b) | 16. (b) |
| 17. (b) | 18. (c) | 19. (a) | 20. (e) |
| 22. (d) | 22. (b) | 23. (b) | 24. (b) |
| 25. (d) | 26. (d) | 27. (a) | 28. (d) |
| 29. (e) | 30. (d) |         |         |

**SPEED TEST 79**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (b)  | 2. (c)  | 3. (c)  | 4. (c)  |
| 5. (c)  | 6. (c)  | 7. (b)  | 8. (d)  |
| 9. (c)  | 10. (a) | 11. (d) | 12. (e) |
| 13. (b) | 14. (d) | 15. (d) | 16. (a) |
| 17. (a) | 18. (d) | 19. (a) | 20. (b) |
| 21. (b) | 22. (b) | 23. (d) | 24. (e) |
| 25. (e) | 26. (a) | 27. (b) | 28. (a) |

**SPEED TEST 80**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (e)  | 2. (d)  | 3. (b)  | 4. (a)  |
| 5. (b)  | 6. (b)  | 7. (b)  | 8. (a)  |
| 9. (b)  | 10. (a) | 11. (b) | 12. (c) |
| 13. (d) | 14. (b) | 15. (b) | 16. (c) |
| 17. (e) | 18. (d) | 19. (b) | 20. (e) |
| 21. (e) | 22. (d) | 23. (d) | 24. (a) |
| 25. (b) | 26. (d) | 27. (b) | 28. (d) |
| 29. (a) | 30. (c) |         |         |

**SPEED TEST 81**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (e)  | 2. (a)  | 3. (a)  | 4. (c)  |
| 5. (a)  | 6. (a)  | 7. (d)  | 8. (b)  |
| 9. (b)  | 10. (b) | 11. (c) | 12. (a) |
| 13. (b) | 14. (d) | 15. (c) | 16. (b) |
| 17. (a) | 18. (a) | 19. (c) | 20. (a) |

**SPEED TEST 82**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (e)  | 2. (a)  | 3. (d)  | 4. (d)  |
| 5. (a)  | 6. (d)  | 7. (a)  | 8. (d)  |
| 9. (b)  | 10. (c) | 11. (d) | 12. (c) |
| 13. (c) | 14. (a) | 15. (c) | 16. (d) |
| 17. (a) | 18. (a) | 19. (d) | 20. (a) |

**SPEED TEST 83**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (c)  | 2. (d)  | 3. (a)  | 4. (b)  |
| 5. (a)  | 6. (b)  | 7. (c)  | 8. (e)  |
| 9. (c)  | 10. (e) | 11. (a) | 12. (b) |
| 13. (c) | 14. (b) | 15. (e) | 16. (a) |
| 17. (b) | 18. (a) | 19. (d) | 20. (c) |
| 21. (a) | 22. (b) | 23. (a) | 24. (c) |
| 25. (e) | 26. (c) | 27. (d) | 28. (b) |
| 29. (d) | 30. (c) |         |         |

**SPEED TEST 84**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (d)  | 2. (b)  | 3. (b)  | 4. (c)  |
| 5. (a)  | 6. (c)  | 7. (e)  | 8. (e)  |
| 9. (d)  | 10. (c) | 11. (e) | 12. (c) |
| 13. (b) | 14. (d) | 15. (d) | 16. (d) |
| 17. (a) | 18. (c) | 19. (b) | 20. (d) |

## SPEED TEST 85

- |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| 1. (b)  | 2. (c)  | 3. (a)  | 4. (b)  | 5. (b)  | 6. (c)  |
| 7. (d)  | 8. (c)  | 9. (c)  | 10. (c) | 11. (d) | 12. (b) |
| 13. (d) | 14. (d) | 15. (b) | 16. (d) | 17. (a) | 18. (c) |
| 19. (b) | 20. (a) | 21. (c) | 22. (d) | 23. (d) | 24. (d) |
| 25. (b) | 26. (c) | 27. (b) | 28. (a) | 29. (d) | 30. (b) |

## SPEED TEST 86

- (a) On the recommendation of Deepak Mohanti Committee the Base Rate System introduced in July 2010.
- (a) Basel III norms recommended by RBI came in effect by 1 Jan. 2013.
- (c) The accounting year of RBI starts the month between July-June.
- (a) In Article-30, RBI permitted to the co-operative Bank for special account supervision.
- (a) Dr. D. Subbarao appointed the Governor of Reserve Bank of India as a 22nd person.
- (c) The documents related to the new monetary policy passed by the Governor of RBI on 3rd may 2013.
- (b) The current-Report Rate decreased by 7.25%.
- (b) The current Reserve Repo Rate stabilize on 6.25%.
- (a) The current Bank Rate is 8.0%.
- (a) The GDP growth rate considers by RBI during the year 2013-14 is 5.7%.
- (c) Open market operations of RBI refers to trading in securities.
- (b) Monetary policy in India is formulated and implemented by RBI.
- (a) Reserve Bank of India follows minimum reserve system for the issuing of currency.
- (b) RBI controls credit creation by the Commercial Bank in India.
- (b) Note issuing department of RBI should always possess the minimum gold stock worth ₹ 115 crore.
- (b) RBI and CSO in India is entrusted with the collection of data of capital formation.
- (c) The Bank rate is the rate at which RBI gives credit to the commercial Banks.
- (b) An increase in CRR by the RBI results in reduction in liquidity in the economy.
- (c) Commercial Banks provide the largest-credit to agriculture and allied sectors.
- (a) RBI implemented the KYC scheme for the identification of customers/consumers.
- (a) RBI is the custodian of India's foreign exchange funds.
- (a) RBI publishes the financial report on currency and finance.
- (b) Income Bank of Russia got permission to open a new branch first time in Delhi by RBI.
- (c) RBI sanctions foreign exchange for the import of goods.

- (d) There are 4 posts of deputy Governor in Reserve Bank of India.
- (a) The percentage of CRR could not be minimized by 3% according to the RBI act, 1934.
- (b) According to the new policy the SLR stabilized at 23.0%.
- (a) Y.H. Malegam committee gave suggestions on the microfinance sector set up by RBI.
- (d) RBI regulates the external commercial borrowings.
- (d) All the statements given above are correct except that, RBI was established in 1949.

## SPEED TEST 87

- (a) State Bank of India has launched a mobile wallet facility- 'Mobicash Easy'. It is a prepaid account accessible over mobile phones, enabling consumers to send remittances to any bank account.
  - (e) ADB and the Government of India signed a \$252 million loan to improve rural roads. The interest rate for the loan has to be determined in accordance with ADB's LIBOR – based lending facility.
- |        |         |         |         |        |        |
|--------|---------|---------|---------|--------|--------|
| 3. (d) | 4. (c)  | 5. (c)  | 6. (c)  | 7. (a) | 8. (c) |
| 9. (d) | 10. (b) | 11. (a) | 12. (d) |        |        |
- (c) To provide basic banking services to bankless villages
  - (b)
  - (d)
  - (a)
  - (a)
- (a) RBI has given nod to Muthoot Finance to set up White Label ATMs .ATMs set up and run by non-banking entities are called White Label ATMs (WLAs) .

## SPEED TEST 88

- |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| 1. (e)  | 2. (a)  | 3. (b)  | 4. (e)  | 5. (a)  | 6. (b)  |
| 7. (c)  | 8. (a)  | 9. (c)  | 10. (a) | 11. (e) | 12. (b) |
| 13. (a) | 14. (a) | 15. (a) | 16. (b) | 17. (b) | 18. (a) |
| 19. (c) | 20. (c) | 21. (c) | 22. (d) | 23. (d) | 24. (d) |
| 25. (c) | 26. (b) | 27. (b) | 28. (d) | 29. (c) | 30. (d) |

## SPEED TEST 89

- (c) Tertiary sector of Indian economy contributes largest to the Gross National Product.
- (a) Service sector is the main source of National Income in India.
- (d) Toll tax is not a tax levied by the government of India.
- (d) The most appropriate measure of a country's economic growth is it's per capita product.
- (c) Foreign Exchange Management Act (FEMA) was finally implemented in the year 2002.
- (b) The most common measure of estimating inflation in India is WPI.
- (c) The largest share of Gross Domestic product in India comes from service sector.
- (c) LPG was announced as new economic policy by Narsimha Rao.

9. (d) The national income of India is estimated by CSO.
10. (b) Andhra Pradesh has the largest no. of approved and operational SEZ's on June 2012.
11. (a) Gems and jewellery the single largest export item from India.
12. (c) Finance Ministry formulates the fiscal policy in India.
13. (b) The devaluation of rupee in India took place twice in the financial year 1991-92.
14. (c) VAT is imposed on all stages between production and final sale.
15. (c) Balance of payment is used in terms of Exports and Imports.
16. (b) The Indian Economy can be described as a developing economy.
17. (b) The period of 12th Five Year Plan is 2012-17.
18. (b) The period of recommendations made by 13th Finance Commission is 2010-15.
19. (b) The multi dimensional poverty index of UNDP includes 10 indicators.
20. (c) Ministry of Finance is responsible for the preparation and publication of 'Economic Survey'.
21. (b) Y.V. Reddy is the chairman of the 14th Finance Commission of India.
22. (a) During the year 2012-13, in the ratio of GDP the fiscal deficit is expected 5.0%.
23. (c) During the year 2012-13, in the percentage of GDP the Revenue deficit expected 3.5%.
24. (b) During the year 2012-13, in the percentage of GDP the primary deficit expected 1.9%.
25. (c) The share of Direct tax expected in the percentage of GDP during 2012-13 is 5.6%.
26. (a) The share of Indirect tax in the percentage of GDP during 2012-13 is 5.0%.
27. (c) The total no. of commodities included in service tax are 119.
28. (c) The share of service tax in terms of percentage of GDP is 12% during 2012-13.
29. (a) The new WPI series was introduced on 1 April, 2010.
30. (d) There are 4 deputy members in the Finance Commission.
6. (b) The industry sector registers the lowest growth during year of 2012-13.
7. (b) Asian Development Bank has lowered India's GDP growth forecast for 2012-13 from 7% to 6%.
8. (d) Govt. has cleared the proposal of FDI in multi-brand retail and aviation sector up to 51% and 49%.
9. (d) The new EXIM policy announced in 1992, is for a period of 5 years.
10. (b) Fruits and palm oils are exported to India by arid and semi-arid countries in the Middle East.
11. (a) The accounting year of the Reserve Bank of India is April-March.
12. (a) Canada has replaced Italy as the importer of bauxite from India.
13. (c) 'Eco Mark' is given to the Indian products for Environment Friendly purpose.
14. (b) The Earlier name of WTO was GATT before 1995.
15. (b) World Development Report is an annual publication of IBRD.
16. (a) India has the maximum volume of foreign trade with USA.
17. (b) In the last decade, services sector has attracted the highest FDI inflows into India.
18. (b) Participatory notes (PNs) are associated with Foreign Institutional Investors (FII's).
19. (b) The purpose of India Brand Equity Fund to make 'Made in India' a label of quality.
20. (a) A trade policy consists of Export-Import policy.
21. (b) FERA in India has been replaced by FEMA.
22. (b) TRIPS and TRIMS are the terms associated with WTO.
23. (c) In the year 2006, SEZ act was passed by the parliament.
24. (b) World Bank is known as the 3rd pillar in international economics relations.
25. (a) Tajikistan and Laos became the new members of WTO.
26. (b) There are total 159 members recently in WTO.
27. (a) Among the states Maharashtra is on the top position in the export in India during 2011-12.
28. (d) Asia has the highest growth rate in terms of goods export in the year 2011.
29. (a) Crude oil has the maximum share in the import of India during the year 2012-13.
30. (b) The total share of India in total foreign exports of goods was 1.60% in the year 2012.

**SPEED TEST 90**

1. (d) India's export dipped during the first half of 2012-13 by \$ 149.3 billion.
2. (b) During the given period the country's trade deficit has moved from \$ 89.39 billion to \$ 87.82 billion.
3. (a) India's rank in Global Hunger Index during 2012-13 stands at 65th.
4. (b) According to RBI's report at the end of March 2012 India's total foreign debt stood at 51%.
5. (b) India's foreign debt GDP ratio at the end-March 2013 stood for 20%.

**SPEED TEST 91**

- |  |  |  |   |
|--|--|--|---|
| <ol style="list-style-type: none"> <li>1. (b)</li> <li>4. (a)</li> <li>5. (c)</li> <li>6. (a)</li> </ol> | <ol style="list-style-type: none"> <li>2. (a)</li> </ol> | <ol style="list-style-type: none"> <li>3. (c)</li> </ol> | <ol style="list-style-type: none"> <li>4. (a) Charon is the largest Moon of Pluto. Charon orbits Pluto at a distance of more than 19000 kilometer.</li> <li>6. (a) ETWS installed in Rangachang in Andaman and Nicobar Islands to predict Tsunami within three minutes</li> </ol> |
|--|--|--|---|

- of being triggered.
7. (b) NASA's Interface Region Imaging Spectrograph (IRIS) was launched aboard an Orbital Sciences Pegasus XL rocket off the California coast. It aims to observe the movement of solar material.
  8. (c)
  9. (b) Google India has launched a campaign named 'Start Searching India' with an objective to help simplify the Web for Indian users, showing how they can get instant answers to their most common queries.
  10. (d) 'Smart Mine Field' application which will pinpoint the location of friendly mines, whose position might have shifted over a period of time. Friendly Mines are mines fitted at a strategic site to gain advantage and whose locations are well known to those who have planted it.
  11. (e)
  12. (e)
  13. (b) Television Viewership in Thousands (TVTs). Television Audience Measurement (TAM) Media Research - the sole agency measures viewership.
  14. (d) This initiative will enable the farmers to take informed decision pertaining to different aspects of farming and weather forecasts.
  15. (a) The Atomic Energy Regulatory Board (AERB) has given green signal for controlled fission process or "First Approach to Criticality" (FAC) for the first unit of the Kudankulam Nuclear Power Plant in Tamil Nadu.
  16. (d) Voter Verifiable Paper Audit Trail (VVPAT) or Verified Paper Record (VPR) is a method of providing feedback to voters using a ballotless voting system. A VVPAT allow voters to verify that their vote was cast correctly, to detect possible election fraud or malfunction, and to provide a means to audit the stored electronic results.
  17. (a) Telefonica, Spanish broadband and telecommunications provider has launched the world's first smartphone with the Firefox Operating System (OS) to compete with devices running Google's Android and Apple's IOS.
  18. (b) Indian Space Research Organization (ISRO) has successfully launched IRNSS-1A on PSLV C 22 from Satish Dhawan Space Centre, Sriharikota in Andhra Pradesh.
  19. (c) Kirobo, developed by Japanese is the world's first robot-astronaut that can communicate with humans. It will be launched to International Space Station (ISS) from Japan Aerospace Exploration Agency's (JAXA) Tanegashima Space Center atop H-IIB rocket on August 4, 2013
  20. (c) IIT-Madras have developed a method of design and construction to make use of Glass Fibre Reinforced Gypsum (GFRG) to construct cost-effective mass housing. What is GFRG?
  21. (a)
  22. (c)
  23. (a) Global biotechnology company 'Life Technologies' has launched India's first private DNA forensics laboratory in Gurgaon which is expected to accelerate sampling process thereby reducing the burden on existing forensic laboratories.
  24. (b) National Tiger Conservation Authority (NTCA) has decided to expand E-surveillance to Assam's Kaziranga National Park, Madhya Pradesh's Ratapani Wildlife Sanctuary and the Ramnagar division surrounding Corbett.
  25. (c) Japan's L0 Series Trains (Maglev bullet trains) are designed to travel at speeds of 311 mph. These trains have latest Magnetic Levitation Technology (maglev) instead of the conventional wheels.
  26. (b) Zhongxing-11 was launched from the Xichang Satellite Launch Center in southwest China's Sichuan Province.
  27. (c) IBM have made the world's smallest movie "A Boy and His Atom" using atoms. The movie has been verified by the Guinness World Records
  28. (a) RoboBee is less than tenth of gram in weight.
  29. (b) "Nirbhay", First cruise missile of India has a Long-range (1,000-2,000 km) & strikes targets more than 700 km away carrying nuclear warheads.
  30. (a)

## SPEED TEST 92

1. (d) Brazil is not a member of ASEAN.
2. (b) 'Sanklap' project is associated with the eradication of HIV/AIDS.
3. (d) The world Environment Day is celebrated on 5th June.
4. (b) The 3rd ministerial level SAARC summit held in Nepal (Kathmandu).
5. (d) The 22nd summit of ASEAN organised in Brunei.
6. (c) BRICS summit held in S. Africa.
7. (a) The 43rd annual meeting of WEF organised in Switzerland.
8. (b) There are 21 members in the APEC nations organisation.
9. (a) The 16th NAM summit held in Tehran (Iran).
10. (a) The G-20 summit organised in Mexico.
11. (a) The 38th summit of G-8 was held in USA.
12. (a) Azerbaijan and Fiji became the new members of NAM.
13. (b) The 25th NATO summit organised in the USA.
14. (a) A lady president elected first time in South Korea.
15. (a) George Mario Bergoglio elected as a new pope of Roman Catholic Church.
16. (a) The 'UN Women' came into existence on 1 July 2010.
17. (c) There 8 point mentioned in MDG-2015 of United Nation.
18. (a) The headquarter of FAO is situated in Italy.
19. (d) The integrated monetary system 'Euro' accepted by EU in 2005.
20. (d) There are 10 members associated with BIMSTEC.
21. (c) Indian Ocean Rim-Association for Regional cooperation summit held in Gurgaon.
22. (b) SAMPRITI-III, 9 a special security forces exercise organised between India and Bangladesh.

- 23. (a) The Cabinet Approval National skill development Agency on 9th May 2013.
- 24. (a) Western Ghat of India included in the list of world heritage list.
- 25. (a) The Ranking of India in Global Hunger Index list is 65th.
- 26. (d) There are 8 members associated with MERCOSUR.
- 27. (a) Angela Merkel (Germany) tops in the Forbe's-100 powerful women in the world consecutively second time.
- 28. (a) The 9th World Hindi Conference held in South Africa.
- 29. (a) The 34th Geology International congress held in Australia.
- 30. (a) In Italy a new political party 'Five Star Movement' arised through Internet.

- 18. (c) Kerala Chief Minister Oommen Chandy on 28 June 2013 received the prestigious United Nations Public Service Award.
- 19. (b) Anish Kapoor, the Indian-origin sculptor was honoured with Knighthood, which is the highest honour of Britain by Queen Elizabeth II.
- 20. (a)
- 21. (d) The book The King of Style: Dressing Michael Jackson by Michael Bush won the gold medal from the Independent Publisher Book Awards.
- 22. (e) U.N. Public Service Awards will be given to three Indian projects for the year 2013. The awards are given for projects that fight poverty and promote sustainable development. Project Mass Contact Programme of Kerala, Project Swavalamban of District Administration of Dhanbad in Jharkhand, Graamin Haat programme of Department of Cottage and Rural Industries in Madhya Pradesh:

**SPEED TEST 93**

- 1. (b) K R Kamath, the chairman and managing director of Punjab National Bank (PNB), has been re-elected as the Chairman of the Indian Banks' Association (IBA) for 2013-14 tenure.
- 2. (a)
- 3. (c)
- 4. (b) Sarod maestro Amjad Ali Khan was chosen for the 21st Rajiv Gandhi National Sashibhavana Award.
- 5. (a)
- 6. (c) Zubin Mehta, western classical music conductor of Indian-Parsi origin, will be honored with the Tagore Award for Cultural Harmony 2013 in recognition of his outstanding contribution to cultural harmony.
- 7. (a)
- 8. (a) The port in Orissa handled a total of 56.55 million tonnes of traffic, up from 54.25 mt in 2011-12. Also, during the year, the port added 22 mt of capacity bringing the total to 102 mt.
- 9. (c) She won the 13th IPCA World Women's Individual Chess Championship title organised by the International Physically Disabled Chess Association, at Velke Losiny in the Czech Republic
- 10. (a)
- 11. (a) Edward Snowden uncovered the most extensive US global electronic surveillance programmes, has been awarded German "Whistleblower Prize" for year 2013.
- 12. (b)
- 13. (b) Swiss tennis legend Martina Hingis (32) was inducted in Tennis Hall of Fame. She has become the fourth youngest member to be inducted in the Tennis Hall of Fame.
- 14. (a)
- 15. (a) Oil Industry Safety Awards for the year presented by Veerappa Moily and Panabaaka Lakshmi to Chief Executives of Winning Oil & Gas organizations.
- 16. (b) Bono the frontman of rock band U2 was awarded with the Commander of the Order of Arts and Letters on 17 July 2013 for the contribution to music.
- 17. (a) Mukesh Hariawala on 28 June 2013 was conferred the prestigious Indian Healthcare Visionary of the Decade award.

- 23. (c)
- 24. (a)
- 25. (e) They are among the 13 mathematicians, theoretical physicists and theoretical computer scientists who have won 2013 Simons Investigators Awards.
- 26. (a) Indonesia's Corruption Eradication Commission has been conferred with the Ramon Magsaysay Award for its successful campaign against corruption in Indonesia. It has prosecuted nearly 100 government officials and others since its first investigations in 2003 and has a perfect conviction record.
- 27. (b) The Man of the Match and the 'Golden Ball' Award was Given to Indian all-rounder Ravindra Jadeja for picking the most number of wickets, 12, in the tournament
- 28. (c) City of Bohane by Kevin Barry won IMPAC Dublin Literary Award 2013.
- 29. (d)
- 30. (a)

**SPEED TEST 94**

- 1. (b) Indian American author Jhumpa Lahiri's The Lowland has been listed among 13 novels longlisted for the Man Booker Prize 2013.
- 2. (c) The book presents the booming maintenance of the world's largest democracy and achievements of India since independence.
- 3. (b) Shahar Sone Chala a collection of poems written by Sat Pal was released by Sheila Dikshit. The book represents different aspects of society.
- 4. (a) The book The King of Style: Dressing Michael Jackson by Michael Bush won the gold medal from the Independent Publisher Book Awards.
- 5. (d) Ambedkar Speaks (Trilogy) is authored by Dr. Narendra Jadhav. It is an attempt to develop a comprehensive bibliography on the speeches delivered by Ambedkar.
- 6. (a)
- 7. (c) Kohli's historical novel "Na Bhooto Na Bhavishyati", depicts Swami Vivekananda and the pursuit of the sanyasi for national unity.
- 8. (a)
- 9. (c)
- 10. (b)
- 11. (a)
- 12. (c) The Vice President of India released a book entitled Healing Memories: Civilizations in Dialogue on 24 June 2013. The book is edited by Zeenat Shaukat Ali.



13. (d) The book describes Ireland of 2053.
14. (a)
15. (a) American author Lydia Davis has been announced the winner of Man Booker International Prize 2013. She was chosen winner out of ten shortlisted authors.
16. (a)
17. (b) Bond narrates his account of doon as he saw it in his childhood.
18. (b)
19. (d) A pictorial coffee table book by Alam Srinivas was launched on 24 June 2013 in Mumbai by former Bombay High Court Chief Justice C S Dharmadhikari.
20. (a) **An Uncertain Glory: India and its Contradictions** authored by Amartya Sen and Jean Dreze was released recently.
21. (b)
22. (a) Philippines authorities are angry over Dan Brown's description for Manila as the gates of hell in his latest fiction work Inferno.
23. (d)    24. (a)    25. (b)    26. (a)    27. (b)    28. (a)  
29. (b)    30. (c)

### SPEED TEST 95

1. (c) Swabhiman scheme is associated with Rural Banking in India.
2. (c) The unorganised workers social security Act was passed in 2008.
3. (b) According to Tendulkar Committee the percentage of the population in India below poverty line is 37.2%.
4. (c) Swadhar scheme launched for the women in difficult circumstances.
5. (a) The main objective of Pradhan Mantri Gramodaya Yojana is meeting rural needs like housing, drinking, water, healthcare, etc.
6. (b) Twenty point Economic programme was first launched in 1975.
7. (a) The disguised unemployment is 9 prominent feature mainly of primary sector.
8. (a) Golden Quadrangle project is associated with Highways development.
9. (d) All the above given statements is the objective of National Food security Mission.
10. (d) Mid-day Meal scheme is financed and managed by Ministry of HRD.
11. (b) Liberalization of Economy is not a measure of reducing inequalities.
12. (a) Valmiki Awas Yojana subsumed Integrated Housing and slum development programme.
13. (c) Poverty level in India is established on the basis of house hold consumer expenditure.
14. (b) Nirmal Bharat Abhiyan Yojana is associated with community toilets in slum areas.
15. (a) 'Aam Admi Bima Yojana' was launched on 2nd Oct. 2007.
16. (d) 'SJSRY' scheme is not related to the rural development.
17. (a) Child Health Screening and Early Intervention Services programme was launched on 6 Feb. 2013.
18. (c) Justice D.K. Jain is the chairman of 20th law commission.
19. (d) The age group of 40-79 years old women are eligible for India Gandhi Widow Pension Scheme.
20. (b) The Project 15B of Indian navy aims to develop stealth guided missile destroyers. Under the project Mazagon Dock Limited will construct four stealth guided missile destroyers. Project 15B destroyers will feature enhanced stealth characteristics as well as incorporating state of the art weaponry and sensors including the extended range Barak 8 surface-to-air missiles.
21. (a) Indian railway has launched the E-Samiksha an online project monitoring system with an aim of monitoring implementation of various ongoing projects including Rail Budget proposals. Apart from budget-related projects, the E-Samiksha can also be used for monitoring the infrastructure target and board meeting follow-up.
22. (c) The Government of India, through its Ministry of Environment & Forests, is implementing a project titled "Capacity Building for Industrial Pollution Management" under the assistance of World Bank. The project objectives are strengthening the environmental management capacity of central and state level regulatory authorities with emphasis on rehabilitation of polluted sites and for undertaking area-based demonstration projects on remediation of contaminated sites. The project also aims at developing a "National Program for the Rehabilitation of Polluted Sites" to reduce or eliminate the environmental and health risks associated with legacy pollution.
23. (a) The union government has set up a panel headed by B N Navalawala to look into various contentious issues relating to inter-linking of rivers. The panel will works towards speedy implementation of the inter-linking of river projects. The panel comprising of water experts and senior officials of different ministries will facilitate interlinking of intra-state and intra-basin rivers.
24. (a) Dr Nasim Zaidi has been appointed a next Chief Election Commissioner of India. He will assume the charge of the office from April 19, after the incumbent H S Brahma will retire on April 18.
25. (d) This scheme was announced to enable minority youth to obtain school leaving certificate and gain better employment.
26. (d)
27. (c) `5,000 crore (Total allocation stands at `34,699 crore)
28. (d)
29. (a) The GST Bill was officially introduced in the Lok Sabha on 19 December 2014. The Bill inserts a new Article in

the Constitution to provide for legislation on the taxation of goods and services a concurrent power of the Centre and the States. For the Constitution to be amended, it needs two-thirds majority in both houses of parliament and then its ratification by at least 15 state legislatures. It will then send to the president for his final signatures. The Bill seeks to establish a GST Council tasked with optimising tax collection for goods and services by the State and Centre. The Council will consist of the Union Finance Minister (as Chairman), the Union Minister of State in charge of revenue or Finance, and the Minister in charge of Finance or Taxation or any other, nominated by each State government. The proposed GST Council will be the body that decides which taxes levied by the Centre, States and local bodies will go into the GST; which goods and services will be subjected to GST; and the basis and the rates at which GST will be applied.

30. (c) Nawaj Shaikh is from National AIDS Research Institute (NARI) and belongs to Pune. The said competition was held through the MyGov Platform for suggesting the Logo, Slogan and Tagline for the New Education Policy of the Government of India. More than 3000 entries were received. It was for the first time ever that this particular logo was designed by a common man of the country and not by any advertising agency or a corporate house. A cash prize of ₹ 10,000 will be awarded to Shaikh.

**SPEED TEST 98**

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (b)  | 2. (e)  | 3. (e)  | 4. (e)  | 5. (a)  |
| 6. (b)  | 7. (a)  | 8. (c)  | 9. (a)  | 10. (d) |
| 11. (a) | 12. (c) | 13. (e) | 14. (a) | 15. (b) |
| 16. (d) | 17. (e) | 18. (c) | 19. (d) | 20. (c) |
| 21. (d) | 22. (d) | 23. (e) | 24. (e) | 25. (b) |
| 26. (a) | 27. (d) | 28. (a) | 29. (e) | 30. (a) |
| 31. (c) | 32. (b) | 33. (d) | 34. (b) | 35. (b) |
| 36. (d) | 37. (b) | 38. (d) | 39. (d) | 40. (d) |
| 41. (c) | 42. (d) | 43. (d) | 44. (c) | 45. (a) |
| 46. (a) | 47. (a) | 48. (a) | 49. (a) | 50. (c) |

**SPEED TEST 99**

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (e)  | 2. (b)  | 3. (c)  | 4. (a)  | 5. (b)  |
| 6. (a)  | 7. (d)  | 8. (e)  | 9. (b)  | 10. (c) |
| 11. (c) | 12. (c) | 13. (d) | 14. (e) | 15. (e) |
| 16. (c) | 17. (d) | 18. (e) | 19. (c) | 20. (e) |
| 21. (c) | 22. (d) | 23. (d) | 24. (e) | 25. (a) |
| 26. (a) | 27. (c) | 28. (d) | 29. (c) | 30. (b) |
| 31. (a) | 32. (d) | 33. (a) | 34. (a) | 35. (c) |
| 36. (e) | 37. (c) | 38. (c) | 39. (a) | 40. (a) |
| 41. (b) | 42. (a) | 43. (c) | 44. (c) | 45. (b) |
| 46. (c) | 47. (d) | 48. (d) | 49. (e) | 50. (a) |

**SPEED TEST 100**

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (c)  | 2. (d)  | 3. (d)  | 4. (b)  | 5. (b)  |
| 6. (b)  | 7. (d)  | 8. (b)  | 9. (b)  | 10. (c) |
| 11. (a) | 12. (c) | 13. (a) | 14. (b) | 15. (c) |
| 16. (d) | 17. (c) | 18. (d) | 19. (c) | 20. (c) |
| 21. (d) | 22. (a) | 23. (a) | 24. (a) | 25. (a) |
| 26. (a) | 27. (c) | 28. (a) | 29. (b) | 30. (c) |
| 31. (a) | 32. (a) | 33. (a) | 34. (c) | 35. (a) |
| 36. (d) | 37. (a) | 38. (a) | 39. (c) | 40. (c) |
| 41. (d) | 42. (b) | 43. (a) | 44. (b) | 45. (d) |
| 46. (b) | 47. (c) | 48. (a) | 49. (d) | 50. (a) |

**SPEED TEST 101**

1. (d) Floating rate bonds have variable interest rate and protect investors against a rise in interest rates (which have an inverse relationship with bond prices) . They also carry lower yields than fixed notes of the same maturity.
2. (d) Commodity markets in India are regulated by Forward Markets Commission (FMC) headquartered at Mumbai.
3. (d)
4. (b) Current Account Deficit
5. (c) This is because Purchase of securities in the Open Markets would lead to more liquidity system and more liquidity means more money will chase the same goods.
6. (c)

**SPEED TEST 96**

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (e)  | 2. (d)  | 3. (c)  | 4. (e)  | 5. (d)  |
| 6. (e)  | 7. (d)  | 8. (c)  | 9. (c)  | 10. (b) |
| 11. (c) | 12. (b) | 13. (d) | 14. (e) | 15. (b) |
| 16. (d) | 17. (b) | 18. (a) | 19. (d) | 20. (a) |
| 21. (a) | 22. (a) | 23. (a) | 24. (b) | 25. (c) |
| 26. (a) | 27. (e) | 28. (e) | 29. (c) | 30. (d) |
| 31. (a) | 32. (c) | 33. (d) | 34. (a) | 35. (a) |
| 36. (a) | 37. (c) | 38. (a) | 39. (b) | 40. (b) |
| 41. (a) | 42. (a) | 43. (c) | 44. (d) | 45. (b) |
| 46. (c) | 47. (b) | 48. (d) | 49. (c) | 50. (c) |

**SPEED TEST 97**

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (b)  | 2. (b)  | 3. (b)  | 4. (c)  | 5. (a)  |
| 6. (a)  | 7. (d)  | 8. (a)  | 9. (d)  | 10. (b) |
| 11. (d) | 12. (d) | 13. (b) | 14. (e) | 15. (b) |
| 16. (e) | 17. (e) | 18. (e) | 19. (b) | 20. (b) |
| 21. (e) | 22. (c) | 23. (d) | 24. (c) | 25. (e) |
| 26. (c) | 27. (d) | 28. (a) | 29. (d) | 30. (a) |
| 31. (c) | 32. (b) | 33. (e) | 34. (a) | 35. (c) |
| 36. (d) | 37. (b) | 38. (b) | 39. (c) | 40. (d) |
| 41. (c) | 42. (d) | 43. (a) | 44. (c) | 45. (b) |
| 46. (e) | 47. (a) | 48. (b) | 49. (c) | 50. (c) |



## ERRATA

## 101 SPEED TEST

Page-6 Q. 28:  $\sqrt{17 + \sqrt{51 + \sqrt{152 + \sqrt{289}}}} = ?$

Page-8 Q. 20: 2000

Page-10 Q. 13: 53%,  
Q. 15: area

Page-14 Q. 16:  $6138 \div \sqrt[3]{17576}$

Page-37 Q. 2:  $7x - 5y$

Page-57 Qs. 16-20 :  Male  Female

Page-71 Q. 9:  $\sqrt{10000}$

Page-73 Q. 26-30 : 3,600 candidates have worked in both public and private sector banks in urban areas only. 15% of the total number of candidates worked in both public and private sector in urban areas only.

Page-97 Q. 6-10: either Lawyer or Engineer.

Page-103 Q. 3: Delete I. B@R II. F\*N III. R\$B

## SOLUTIONS

Speed Test-2 (P-2) Q. 6:  $y - 0.3x$

Speed Test-3 (P-4) Q. 22:  $2\sqrt{49 \times 8} - 21 + 8 + 49 - \sqrt[4]{8}$

$$\begin{aligned} \text{(P-4) Q. 28: } \sqrt{17 + \sqrt{51 + \sqrt{152 + \sqrt{289}}}} &= \sqrt{17 + \sqrt{51 + \sqrt{152 + 17}}} \\ &= \sqrt{17 + \sqrt{51 + \sqrt{169}}} = \sqrt{17 + \sqrt{51 + 13}} \\ &= \sqrt{17 + \sqrt{64}} = \sqrt{17 + 8} = \sqrt{25} = 5 \end{aligned}$$

Speed Test-4 (P-4) Q. 10 :  $192 + x \times \frac{15}{100}$

$$\text{(P-6) Q. 20 : } 2000 - 720 = 1280$$

Speed Test-6 (P-8) Q. 27 :  $10.7 - ? = 5.1$

$$\Rightarrow ? = 10.7 - 5.1 = 5.6$$

Speed Test-7 (P-9) Q. 16 :  $6318 \div 26$

Speed Test-8 (P-10) Q. 15:  $50x + 100(90 - 60)$

Speed Test-9 (P-10) Q. 8 : A, B and C for 1 year

Speed Test-9 (P-11) Q. 22:  $\frac{42}{5}x : \frac{44}{5}x$

Speed Test-10 (P-12) Q. 6:  $\frac{450 \times 12}{300 \times x} = \frac{2}{1}$

Speed Test-10 (P-12) Q. 15:  $5x = 62500$

Speed Test-10 (P-12) Q. 18:  $19(4x^2 - 3y^2)$

Speed Test-10 (P-13) Q. 20:  $8 : 9 : 24$

Speed Test-13 (P-18) Q. 11: (a)

Speed Test-16 (P-26) Q. 35:  $\left[ 100 \left( 1 + \frac{r}{100} \right)^t - 1 \right]$

Speed Test-17 (P-27) Q. 13:  $\frac{5}{4}(x - 10)$

Speed Test-18 (P-28) Q.2:  $a^x = b$

Speed Test-18 (P-28) Change the number from Q. 11  $\rightarrow$  12; 12  $\rightarrow$  13, 13  $\rightarrow$  14, and so on.

$$\text{(P-28) Q. 15: } (\log_{10} 10)^2 = 1^2 = 1 = [\because \log_{10} 10 = 1]$$

Speed Test-22 (P-32) Q. 6:  $\frac{12!}{4! \times (12-4)!} ; \frac{7!}{4! \times (7-4)!}$

$$\text{(P-32) Q. 7: } \frac{12!}{3! \times (12-3)!} ; \frac{7!}{2! \times (7-2)!}$$

Speed Test-26 (P-38) Q. 27: (c) =  $25 \times 100 \times 15 = 37500$

$$\therefore \text{ Required per centage} = \frac{33750}{37500} \times 100 = 90\%$$

Speed Test-32 (P-44) Q. 11: =  $54000 \times 25\%$

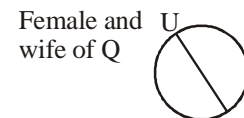
Speed Test-32 (P-45): Q.28:  $\frac{450}{300} = \frac{3}{2} \Rightarrow 3 : 2$

Speed Test-32 (P-46): Q. 43 :  ${}^4c_2 \times {}^5c_3 \times {}^4c_3 \times {}^5c_2 + {}^4c_4 \times {}^5c_1$

Speed Test-40 (P-55) Q. 2: (d) M is the brother of K, who is mother of T.  
 $\Rightarrow M + K - T$

Speed Test-40 (P-55) Q. 17: (b)

(P-56) Q. : For questions 25 to 30:-



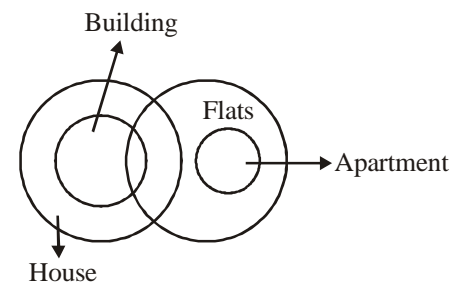
Speed Test-41 (P-57) Q. 17: (c) 34th from the bottom.

$$= 27 + 34 - 1 = 60$$

Therefore, total number of students in the class

$$= \frac{60}{4} \times 5 = 75$$

Speed Test-50 (P-67) OR.



Speed Test-59 (P-74): (25-29)  $\rightarrow$  (16-20)

Change the number from, correct number is 25-16

26-17

and so on