UGC NET

Paper 1

ज्ञान-विज्ञान विमुक्तये
UGC - NET

Teaching Aptitude

Diwakar
education
hub

India's Best Institute of UGC NET & CSIR NET

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 1

Chart

S. N.	TOPIC PAPER-I	PAGE NO.
A.	**Teaching-** **Concept, Objectives, Levels of teaching (Memory, Understanding and Reflective), Characteristics and basic requirements.**	**3-32**
B.	**Learner's characteristics-** **Characteristics of adolescent and adult learners (Academic, Social, Emotional and Cognitive), Individual differences.**	**33-44**
C.	**Factors affecting teaching related to- Teacher, Learner, Support material, Instructional facilities, Learning environment and Institution.**	**45-52**
D.	**Methods of teaching in Institutions of higher learning-** **Teacher centred vs. Learner centred methods; Off-line vs. On-line methods (Swayam, Swayamprabha, MOOCs etc.).**	**53-67**
E.	**Teaching Support System-** **Traditional, Modern and ICT based.**	**68-77**
F.	**Evaluation Systems: Elements and Types of evaluation, Evaluation in Choice Based Credit System in Higher education, Computer based testing, Innovations in evaluation systems.**	**78-101**

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 2

TEACHING

Teaching is one of the instruments of education and is a special function is to impart understanding and skill. The main function of teaching is to make learning effective. The learning process would get completed as a result of teaching. So, teaching and learning are very closely related.

Concept of teaching

Teaching is a process in which one individual teaches or instruct another individual. Teaching is considered as the act of imparting instructions to the learners in the classroom situation. It is watching systematically. Dewey:- considers it as a manipulation of the situation, where the learner will acquire skills and insight with his own initiation.

Teaching is an activity that influences a learner to learn and acquire desired knowledge and skills and also their desired ways of living in society. It is a process in which the learner, teacher and other variables are organized in a systematic way to attain some predetermined goals.

Teaching definition-

(1) **H C Morrison:-** Teaching is an intimate contact between the more mature personality and a less mature one.
(2) **Jackson:-** Teaching is a face to face encounters between two or more persons, one of whom (teacher) intends to effect certain changes in the other participants (students).
(3) **J B Hough and James K Duncan:-** Teaching is an activity with four phases, a curriculum planning phase, an instructing phase, and an evaluating phase. This definition presents the organizational aspect by which we can describe and analyze the teaching process.
(4) **N.L. Gage (Democratic point of view):-** Teaching is interpersonal influence aimed at changing the behavior potential of another person.
(5) **Clerk:-** Teaching refers to activities that are designed and performed to produce in students behavior.

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 3

We can define teaching according to the following three viewpoints.

(a) Authoritarian
(b) Democratic
(c) Liassez faire.

(a) Authoritarian:-

According to this viewpoint-

- Teaching is an activity of memory level only
- This teaching does not develop thoughts and attitude in the students.
- Is known as thoughtless teaching
- This teaching is teachers centric criticism of the teachers.

(b) Democratic teaching:-

According to this-

- Teaching is done at understanding level.
- Memory level teaching is the prerequisite (concept) is first memorized and then understand
- Such teaching is known as thoughtful teaching.
- According to this point of view, teaching is an interactive process, primarily involving classroom talks which takes place between teachers and student.
- Here students can ask questions and criticize the teachers.
- Here students can ask the questions and self-disciplined is insisted.

(c) Laissez Faire Attitude:-

- It is known as reflective level teaching.
- It is more difficult then memory level and understanding level of teaching.
- Memory level and understanding level teaching are must for the reflective level of teaching.

- It is highly thoughtful activity.
- In this level both students and teachers are participants.
- This level produces insights.

Nature and characteristic of teaching:-

Teaching is a social and cultural process, which is planned in order to enable an individual to learn something in his life. We can describe the nature and characteristics of teaching in following way:-

(1) Teaching is a complete social process: Teaching is undertaken for the society and by the society. With everchanging social ideas, it is not possible to describe exact and permanent nature of teaching.

(2) Teaching is giving information: Teaching tells students about the things they have to know and students cannot find out themselves. Communication of knowledge is an essential part of teaching.

(3) teaching is an interactive process: Teaching is an interactive process between the student and the teaching sources, which is essential for the guidance, progress, and development of students.

(4) Teaching is a process of development and learning.

(5) Teaching causes a change in behavior.

(6) Teaching is art as well as science.

(7) Teaching is face to face encounter.

(8) Teaching is observable, measurable and modifiable.

(9) Teaching is skilled occupation:- Every successful teacher is expected to know the general methods of teaching-learning situations.

(10) Teaching facilitates learning

(11) Teaching is both conscious and an unconscious process.

(12) Teaching is from memory level to reflective level.

(13) Teaching is a continuum of training, conditioning, instruction, and indoctrination.

Separation of teaching from other similar processes:-

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 5

In order to understand the meaning of teaching, it is essential to understand the difference between teaching and other similar concepts like conditioning, training, instruction, and indoctrination. Here, a brief description is given below:-

Conditioning v/s Teaching

Teaching

- Teaching aims at the development of potential and intellect.
- It has broader scope
- Reinforcement is not necessary for teaching.
- In teaching repetition of the taught subject matter is not necessary.
- In teaching, there is a curriculum that is very comprehensive
- In teaching qualitative and quantitative techniques are used for evaluation.
- Teaching is a broader process with various levels.

Conditioning

- It aims at modification of behavior and learning habits.
- Scope of conditioning is relatively narrow
- Reinforcement plays a vital role here.
- Conditioning is done by the repetition of behavior to be acquired.
- In conditioning, curriculum is fixed
- Evaluation in conditioning is done on the basis of the acquisition of a behavior or a habit.
- Conditioning is considered as the lowest level of the entire process of teaching.

Teaching and instruction

Instruction is the act of telling the learner what to do or what not do.

Teaching

- Scope is wide

Please Be Careful from Fake Person buy our Notes From Our Official Website **(DIWAKAR EDUCATION HUB)** only OR Call 7310762592.

Page 6

325. If students are not taking interest in your teaching, then you will—
(A) Ignore them
(B) Leave the class
(C) Ask them to pay attention
(D) Change the teaching method

Answer: (D) Change the teaching method

326. If some of the students in the class are found to be using intoxicants, the teacher should

(a)Inform police
(b)Inform the headmaster
(c)Advise them properly
(d)Punish them

Answer: Advise them properly

327. The mental development of the child most closely parallels an increase in:

(a)His ability to get along with others.
(b)His ability to profit from experience
(c)His stock of knowledge
(d)His ability to memorize

Answer: His ability to profit from experience

328. Which of the following is not a valuable feedback for a teacher?

(a)Parents
(b)Colleagues
(c)Librarian
(d)Students

Answer: Librarian

329. Which of the following is true about modern evaluation system in secondary school?

(a)Encourages root learning
(b)Continuous evaluation system
(c)Product oriented evaluation
(d)Summative evaluation system

Answer: Continuous evaluation system

330. The majority of the teachers in your school want you to be the staff secretary. You are not very confident. How will you react to the proposal?

(a)Tell them curtly, that you wouldn't take it up
(b)Tell them that you are not the apt person
(c)Accept the challenge seeking their co-operation in all matters.
(d)Suggest the name of somebody instead

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 59

Answer: Accept the challenge seeking their co-operation in all matters.

331. Who is the best motivator of a student at school?

(a)The teacher
(b)The headmaster
(c)The management
(d)Peer group

Answer: The teacher

332. Better schooling tends to raise intelligence:

(a)False
(b)Only to some extent
(c)Don't know
(d)True

Answer: True

333. In a PTA meeting, how would you behave?

(a)Answer very shortly for the questions asked by the parents
(b)Discuss the abilities and weaknesses of the child
(c)Introduce them to the principal
(d)Try to avoid interaction with the parents

Answer: Discuss the abilities and weaknesses of the child

334. The quality of teaching is based on:

(a)Discipline in the classroom
(b)Attainment of information
(c)Development of rapport with students
(d)Overall development of students

Answer: Overall development of students

335. What step will you take, if the noise from the neighboring class disturbs your teaching?

(a)Go to that class and openly tell the teacher that the noise is quite distressing
(b)Make a complaint to the principal about the class.
(c)Have a friendly talk with the teacher at some convenient time and discuss a solution
(d)Go to the class immediately and scold the teacher

Answer: Go to that class and openly tell the teacher that the noise is quite distressing

336. To help a student to select the course of study for higher education is:

(a)Vocational guidance
(b)Personal guidance
(c)Educational guidance
(d)None of these

Answer: Educational guidance

337. An effective teacher should:

(a)Induce the students to learn
(b)Increase pass percentage
(c)Help the students in preparing good notes
(d)Finish the course in time

Answer: Induce the students to learn

338. One of your colleagues requests you to do a favor while evaluating a student. What would you do in this situation?

(a)Advise him not to do undesirable things
(b)Pretend to oblige, but do not do any favor
(c)Evaluate the answer book objectively
(d)Scold him and deny the request

Answer: Evaluate the answer book objectively

339. Why do you prefer teaching profession?

(a)Reasonably good salary
(b)It is a comfortable vacation
(c)It is a noble profession
(d)It is a less responsible vocation

Answer: It is a noble profession

340. "Stress should be laid on principle of Co-operative activity, flowing accuracy, initiative and individual responsibility in learning" has been stated by:

(a)Gandhiji
(b)Tagore
(c)Aurobindo
(d)Nehru

Answer: Gandhiji

341. A student raises questions in the classroom. The teacher should:

(a)Scold him for disturbing the whole class
(b)Advise him to learn well
(c)Appraise him and do answer to his question
(d)Pay no attention

Answer: Appraise him and do answer to his question

342. A free democratic classroom will be best suited for:

(a)Children who lack emotional security
(b)Children from authoritarian homes
(c)Children being trained to become free citizen
(d)Children with strong need for guidance

Answer: Children being trained to become free citizen

343. Teachers who are enthusiastic in the classroom teaching:

(a)Simply dramatize to hold the student's attention
(b)Involve the students in the teaching-learning process
(c)Often lack proficiency in the subjects
(d)All of the above

Answer: Involve the students in the teaching-learning process

344. Which of the following teacher traits are the reasons given by children for not liking the teacher?

(a)Ignorance of the subject matter
(b)Unfairness and favoritism
(c)Unreasonable demands on the children
(d)Irritable and bad temperament

Answer: Irritable and bad temperament

345. Creativity in the classroom can be promoted by:

(a)Giving creativity exercises
(b)Giving rewards for new ideas
(c)Identifying creative children
(d)All the above

Answer: All the above

346. Educational psychology is oriented towards:

(a)The application of the principles and techniques of psychology to the solution of the problems of the classroom
(b)The definition of goals for which the teacher should strive
(c)The identification of potentially successful educational procedure
(d)The study of the peculiarities of individual children

Answer: The application of the principles and techniques of psychology to the solution of the problems of the classroom

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 62

347. The capacity to think rationally and act purposefully is:

(a)Perception
(b)Intelligence
(c)Reasoning
(d)Creativity

Answer: Intelligence

348. If students do not understand what is taught in the classroom, the teacher should feel,

(a)Terribly bored
(b)To explain it in a different way
(c)That he is wasting time
(d)Pity for the students

Answer: To explain it in a different way

349. Which of the following provides more freedom to the learner to interact?
(a)Large group discussion
(b)Seminar
(c)Lecture by experts
(d)Small group discussion

Answer: Small group discussion

350. The first important step in teaching is:

(a) Organizingg material to be taught

(b)Knowing the background of students

(c)None of these

(d)Planning before hand

Answer: Knowing the background of students

351. Which of the following comprise teaching skill?
A) Blank Board Writing
B) Questioning
C) Explaining
D) All the above

Answer: 4

352. Which of the following is not instructional material?
A) Over Head Projector
B) Audio Cassette
C) Printed Material
D) Transparency

Answer: 1

353. Which of the following statements is correct?
A) Syllabus is a part of curriculum.
B) Syllabus is an annexure to curriculum.
C) Curriculum is the same in all educational institutions affiliated to a particular university.
D) Syllabus is not the same in all

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 63

educational institutions affiliated to a particular university.

Answer: 4

354. Teacher uses visual-aids to make learning:
A) Simple
B) More knowledgeable
C) Quicker
D) Interesting

Answer: 4

355. A teacher's major contribution towards the maximum self-realization of the student is affected through:
A) Constant fulfilment of the students' needs
B) Strict control of class-room activities
C) Sensitivity to students' needs, goals and purposes
D) Strict reinforcement of academic standards

Answer: 3

356. Maximum participation of students is possible in teaching through:
A) Discussion method
B) Lecture method
C) Audio-visual aids
D) Textbook method

Answer: 1

357. Which of the following is not a product of learning?
A) Attitudes
B) Concept
C) Knowledge
D) Maturity

Answer: 4

358. Value-education stands for:
A) Making a student healthy
B) Making a student to get a job
C) Calculation of virtues
D) All-round development of personality

Answer: 3

359. Which of the following skills are needed for present day teacher to adjust effectively with the classroom teaching?
1. Knowledge of technology.
2. Use of technology in teaching learning.
3. Knowledge of students? needs.
4. Content mastery

A) 1 & 3
B) 2 & 3
C) 2, 3 & 4
D) 2 & 4

Answer: 3

360. Micro teaching is more effective:

A) During the preparation for
teaching-practice

B) During the teaching-practice

C) After the teaching-practice

D) Always

Answer: 2

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 65

UGC NET

Paper 1

ज्ञान-विज्ञान विमुक्तये
UGC - NET

Information and Communication Technology (ICT)

Diwakar
education
hub

India's Best Institute of UGC NET & CSIR NET

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 1

Chart

RESEARCH

MEANING AND DEFINITION

Research is a scientific and systematic search for various information about a specific topic. It is just like a search for truth and knowledge. The English Dictionary meaning of Research is "a careful investigation or inquiry specially through search for new facts in any branch of knowledge." information about a subject can be collected by deliberate effort and it is presented in a new form after analyzing thoroughly in research work.

Research is an academic activity. It is a movement from the known to the unknown, which may be called a discovery. Different definitions of research are given by the experts.

According to Redman and Mory, "Research is a systematized effort to gain new knowledge."

D. Slesinger and M Stephenson define research as, "the manipulation of things, concepts or symbols for the purpose of generalizing to extend correct or verify knowledge whether that knowledge aids in construction of theory or in the practice of an art "

According to P.M. Cook, "Research is an honest, exhaustive, intelligent searching for facts and their meanings or implications with reference to a given problem."

J.M. Francis Rumel defines, "Research is an endeavour to discover, develop and verify knowledge."

Clifford Woody, defines "Research is a careful enquiry or examination in seeking facts or principles a diligent investigation to ascertain something."

Objectives:

The main purpose of research is to discover answers to the meaningful questions through scientific procedures and systematic attempt. The hidden truths which are not discovered yet, can easily come to light by research.

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 3

The main objectives of Research are:

1. To gain familiarity or to achieve new insights into a phenomenon. This is known as Exploratory or Formulative Research studies.
2. To describe the accurate characteristics of a particular individual, situation or a group. This is known as Descriptive Research studies.
3. To determine the frequency with which something occurs or with which it is associated with other things. This is known as Diagnostic Research studies.
4. To test a hypothesis of a casual relationship between variables. Such studies are known as Hypothesis-testing Research studies.

Characteristics of Research

Research is a process of collecting, analyzing and interpreting information to answer questions. But to qualify as research, the process must have certain characteristics: it must, as far as possible, be controlled, rigorous, systematic, valid and verifiable, empirical and critical.

Controlled– in real life there are many factors that affect an outcome. The concept of control implies that, in exploring causality in relation to two variables (factors), you set up your study in a way that minimizes the effects of other factors affecting the relationship. This can be achieved to a large extent in the physical sciences (cookery, bakery), as most of the research is done in a laboratory. However, in the social sciences (Hospitality and Tourism) it is extremely difficult as research is carried out on issues related to human beings living in society, where such controls are not possible. Therefore, in Hospitality and Tourism, as you cannot control external factors, you attempt to quantify their impact.

Rigorous-you must be scrupulous in ensuring that the procedures followed to find answers to questions are relevant, appropriate and justified. Again, the degree of rigour varies markedly between the physical and social sciences and within the social sciences.

Systematic-this implies that the procedure adopted to undertake an investigation follow a certain logical sequence. The different steps cannot be taken in a haphazard way. Some procedures must follow others.

Valid and verifiable-this concept implies that whatever you conclude on the basis of your findings is correct and can be verified by you and others.

Empirical-this means that any conclusion drawn are based upon hard evidence gathered from information collected from real-life experiences or observations.

Critical-critical scrutiny of the procedures used and the methods employed is crucial to a research enquiry. The process of investigation must be foolproof and free from drawbacks. The process adopted and the procedures used must be able to withstand critical scrutiny.

For a process to be called research, it is imperative that it has the above characteristics.

1. Research is directed towards the solution of a problem.
2. Research gathers new knowledge or data from primary sources.
3. Research is based upon observable experience or experimental evidence.
4. Research is logical and objective, applying every possible test to verify the data collected and the procedures employed.
5. Research is expert, systematic and accurate investigation.
6. Research demands accurate observation and description.
7. Research requires patience and courage. The researcher should courageously face the unpleasant consequences of his finding if any.
8. Research is highly purposive. It deals with a significant problem which must be solved.
9. Research is carefully recorded and reported. Everything must be carefully defined and described in detail.
10. Research activity is characterized by carefully designed procedures which are to be analysed thoroughly.

Research Methods

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 5

All those methods which are used by the researcher during the course of studying his research problems are called as Research Methods. Methods of research may be classified from different points of view.

These are:

1. The fields to which applied-Education, Philosophy, Psychology.
2. Purpose-Description, Prediction. Determination of status and causes.
3. Place where it is to be conducted-in the field or in the laboratory.
4. Application-Pure research or applied research
5. Data gathering devices employed-Testing, rating scales, questionnaires etc.
6. Character of the data collected-Objective, Subjective, Quantitative, and Qualitative.
7. Forms of thinking-Deductive and Inductive.
8. Control of factors-Controlled and Uncontrolled.

Types of Research

Research can be classified from three perspectives:

1. **Application of research study**
2. **Objectives in undertaking the research**
3. **Inquiry Mode employed**

Based on Application:

From the point of view of the application, there are two broad categories of research:

1. **Pure Research**
2. **Applied Research,**

Pure research (Fundamental) involves developing and testing theories and hypotheses that are intellectually challenging to the researcher but may or may not have a practical application at the present time or in the future. **The**

(5) Analysis and Interpretation of data

(6) Reporting the results

Which of the following sequence is correct?

(A) 3, 2, 4, 1, 5, 6

(B) 1, 3, 2, 5, 6, 4

(C) 3, 2, 4, 1, 6, 5

(D) 3, 2, 5, 1, 6, 4

Answer: A

401. Which of the following statements is not true in the context of participatory research?

(1) It recognizes knowledge as power.

(2) It emphasises on people as experts.

(3) It is a collective process of enquiry.

(4) Its sole purpose is production of knowledge.

Answer: 4

402. A researcher is interested in studying the prospects of a particular political party in an urban area. What tool should he prefer for the study?

(1) Rating scale

(2) Interview

(3) Questionnaire

(4) Schedule

Answer: 3

403. Ethical norms in research do not involve guidelines for:

(1) Thesis format

(2) Copyright

(3) Patenting policy

(4) Data sharing policies

Answer: 1

404. A researcher intends to explore the effect of possible factors for the organization of effective mid-day meal interventions. Which research method will be most appropriate for this study?

(1) Historical method

(2) Descriptive survey method

(3) Experimental method

(4) Ex-post-facto method

Answer: 4

405. Which of the following is an initial mandatory requirement for pursuing research?

(1) Developing a research design

(2) Formulating a research question

(3) Deciding about the data analysis procedure

(4) Formulating a research hypothesis

Answer: 2

406. The format of thesis writing is the same as in

(1) preparation of a research paper/article

(2) writing of seminar presentation

(3) a research dissertation

(4) presenting a workshop / conference paper

Answer: 3

407. In qualitative research paradigm, which of the following features may be considered critical?
(1) Data collection with standardised research tools.
(2) Sampling design with probability sample techniques.
(3) Data collection with bottom-up empirical evidences.
(4) Data gathering to take place with top-down systematic evidences.

Answer: 3

408. From the following list of statements identify the set which has negative implications for 'research ethics':
(i) A researcher critically looks at the findings of another research.
(ii) Related studies are cited without proper references.
(iii) Research findings are made the basis for policy making.
(iv) Conduct of practitioner is screened in terms of reported research evidences.
(v) A research study is replicated with a view to verify the evidences from other researches.
(vi) Both policy making and policy implementing processes are regulated in terms of preliminary studies.
Codes:
(1) (i), (ii) and (iii)
(2) (ii), (iii) and (iv)
(3) (ii), (iv) and (vi)
(4) (i), (iii) and (v)

Answer: 3

409. In a research on the effect of child-rearing practices on stress-proneness of children in completing school projects, the hypothesis formulated is that 'child rearing practices do influence stress-proneness'. At the data-analysis stage a null hypothesis is advanced to find out the tenability of research hypothesis. On the basis of the evidence available, the null hypothesis is rejected at 0.01 level of significance. What decision may be warranted in respect of the research hypothesis?
(1) The research hypothesis will also be rejected.
(2) The research hypothesis will be accepted.
(3) Both the research hypothesis and the null hypothesis will be rejected.
(4) No decision can be taken in respect of the research hypothesis.

Answer: 2

410. The principal of a school conducts an interview session of teachers and students with a view to explore the possibility of their enhanced participation in school programmes. This endeavour may be related to which type of research?
(1) Evaluation Research
(2) Fundamental Research
(3) Action Research
(4) Applied Research

Answer: 3

411. In doing action research what is the usual sequence of steps?
(1) Reflect, observe, plan, act
(2) Plan, act, observe, reflect
(3) Plan, reflect, observe, act
(4) Act, observe, plan, reflect

Answer: 2

412. Which sequence of research steps is logical in the list given below?
(1) Problem formulation, Analysis, Development of Research design, Hypothesis making, Collection of data, Arriving at generalizations and conclusions.
(2) Development of Research design, Hypothesis making, Problem formulation, Data analysis, Arriving at conclusions and data collection.
(3) Problem formulation, Hypothesis making, Development of a Research design, Collection of data, Data analysis and formulation of generalizations and conclusions.
(4) Problem formulation, Deciding about the sample and data collection tools, Formulation of hypothesis, Collection and interpretation of research evidence.

413. Below are given two sets – research methods (Set-I) and data collection tools (Set-II).
Match the two sets and indicate your answer by selecting the correct code:

Set – I (Research Methods)	Set – II (Data Collection Tools)

a. Experimental method	i. Using primary and secondary sources
b. Ex post-facto method	ii. Questionnaire
c. Descriptive survey method	iii. Standardized tests
d. Historical method	iv. Typical characteristic tests

Codes:

	a	b	c	d
(1)	ii	i	iii	iv
(2)	iii	iv	ii	i
(3)	ii	iii	i	iv
(4)	ii	iv	iii	i

Answer: 2

414. The issue of 'research ethics' may be considered pertinent at which stage of research?
(1) At the stage of problem formulation and its definition
(2) At the stage of defining the population of research
(3) At the stage of data collection and interpretation
(4) At the stage of reporting the findings.

Answer: 3

415. In which of the following, reporting format is formally prescribed?
(1) Doctoral level thesis
(2) Conference of researchers
(3) Workshops and seminars
(4) Symposia

Answer: 1

416. Which of the following research types focuses on ameliorating the prevailing situations?
(1) Fundamental Research
(2) Applied Research
(3) Action Research
(4) Experimental Research

Answer: 3

417. A researcher attempts to evaluate the effect of method of feeding on anxiety - proneness of children. Which method of research would be appropriate for this?
(1) Case study method
(2) Experimental method
(3) Ex-post-facto method
(4) Survey method

Answer: 3

418. In which of the following arrangements a wider spectrum of ideas and issues may be made possible?
(1) Research Article
(2) Workshop mode
(3) Conference
(4) Symposium

Answer: 3

419. Which of the following is susceptible to the issue of research ethics?
(1) Inaccurate application of statistical techniques
(2) Faulty research design
(3) Choice of sampling techniques
(4) Reporting of research findings

Answer: 4

420. There are two sets given below. Set - I specifies the types of research, while Set - II indicates their characteristics. Match the two and give your answer by selecting the appropriate code.

Set - I (Research types)	Set - II (Characteristics)
(a) Fundamental research (b) Applied research (c) Action research (d) Evaluative research	(i) Finding out the extent of perceived impact of an intervention (ii) Developing an effective explanation through theory building (iii) Improving an existing situation through use of interventions (iv) Exploring the possibility of a theory for use in various situations (v) Enriching technological resources

Code:

	(a)	(b)	(c)	(d)
(1)	(ii)	(iv)	(iii)	(i)
(2)	(v)	(iv)	(iii)	(ii)
(3)	(i)	(ii)	(iii)	(iv)

(4)   (ii)   (iii)   (iv)   (v)

Answer: 1

421. Which of the sets of activities best indicate the cyclic nature of action research strategy?
(1) Reflect, Observe, Plan, Act
(2) Observe, Act, Reflect, Plan
(3) Act, Plan, Observe, Reflect
(4) Plan, Act, Observe, Reflect

Answer: 4

422. Which of the following sequences of research steps is nearer to scientific method?
(1) Suggested solution of the problem, Deducing the consequences of the solution, Perceiving the problem situation, Location of the difficulty and testing the solutions.
(2) Perceiving the problem situation, Locating the actual problem and its definition, Hypothesizing, Deducing the consequences of the suggested solution and Testing the hypothesis in action.
(3) Defining a problem, Identifying the causes of the problem, Defining a population, Drawing a sample, Collecting data and Analysing results.
(4) Identifying the causal factors, Defining the problem, Developing a hypothesis, Selecting a sample, Collecting data and arriving at generalizations and Conclusions.

Answer: 3

423. The problem of 'research ethics' is concerned with which aspect of research activities?
(1) Following the prescribed format of a thesis
(2) Data analysis through qualitative or quantitative techniques
(3) Defining the population of research
(4) Evidence based research reporting

Answer: 4

424. In which of the following activities, potential for nurturing creative and critical thinking is relatively greater?
(1) Preparing research summary
(2) Presenting a seminar paper
(3) Participation in research conference
(4) Participation in a workshop

Answer: 4

425. Prime Minister Research Fellowship is for students pursuing Ph.D programme in:
(1) State and Central Universities
(2) Central Universities, IISc, IITs, NITs, IISERs and IIITs
(3) IISc, IITs, NITs, IISERs, IIITs, State and Central Universities
(4) IITs and IISc

Answer: 4

426: Who said that members of the same species are not alike ?
A. Darwin
B. Herbert Spencer
C. Best
D. Good

Option: A

427:   A researcher divides the populations
into PG, graduates and 10 + 2 students and
using the random digit table he selects
some of them from each. This is technically
called
A. stratified sampling
B. stratified random sampling
C. representative sampling
D. none of these
Option: B

428: A researcher divides his population
into certain groups and fixes the size of the
sample from each group. It is called
A. stratified sample
B. quota sample
C. cluster sample
D. all of the above
Option: B

429:   Field study is related to
A. real life situations
B. experimental situations
C. laboratory situations
D. none of the above
Option: A

430: Attributes of objects, events or things
which can be measured are called
A. qualitative measure
B. data
C. variables
D. none of the above
Option: C

UGC NET

Paper 1

ज्ञान-विज्ञान विमुक्तये
UGC - NET

Logical Reasoning

Diwakar
education
hub

India's Best
Institute of UGC
NET & CSIR
NET

Structure of Arguments

An *argument* is a set of statements, one of which, the *conclusion* is taken to be supported by the remaining statements, the *premises*.

For example;

Premises: All men are mortal

Socrates is a man

Conclusion: Socrates is mortal

What is Argument?

In the above example, there are three statements, 1) All men are mortal, 2) Socrates is a man, and 3) Socrates is mortal. The premises of the Argument is the first two statement, and the last statement is a Conclusion. The statements of premises support the statement of conclusion. This type of arrangement is called an Argument.

Forms of Arguments

There are three types of Arguments:

1. Deductive Arguments
2. Inductive arguments, and
3. Abductive arguments

1. Deductive Argument

An argument where the conclusion <u>follows validly</u> from the premises. In other words, an argument where the truth of the premises <u>guarantees the</u> truth of the conclusion.

Example:
Premises: All men are mortal

Socrates is a man

Conclusion Socrates is mortal

In the above example, the premises, all men are mortal, and Socrates is a man, give a guarantee the truth of the conclusion; Socrates is mortal. The conclusion follows the validity according to the premises.

2. Inductive Argument

An argument where the premises point several cases of some pattern and the conclusion states that this pattern will hold in general.

An inductive argument will not be deductively valid, because even if a pattern is found many times, that does not guarantee it will always be found. Therefore, an inductive argument provides weaker, less trustworthy support for the conclusion than a deductive argument does.

For Example:

Premises: We have seen 1000 swans, and All of them have been white

Conclusion: All swans are white.

In the above example, we have seen just 1000 swans (not all in the world), and all of them have been white. But it does not mean that all swans in the world are white. White swans are a case of a pattern in those particular circumstances. Hence, we have concluded in general that all swans are white. But it might not be true actually. This type of arrangement of premises and conclusion is an example of an Inductive argument.

3. Abductive (or Hypothetico-Deductive) Argument

An argument that (i) points out a particular fact, (ii) points out that if a particular hypothesis were true, we would get this fact, and so (iii) concludes that the hypothesis is indeed true.

Abductive arguments seem to make an even bigger jump than inductive arguments. Inductive arguments generalize, while abductive arguments say that successful predictions **"prove"** theory is true. Abductive arguments are not

deductively valid because false theories can make true predictions. So, true predictions do not guarantee that the theory is true.

Example:

Premises: These coins conduct electricity (fact) If these coins are made of gold (hypothesis), then they would conduct electricity (prediction).

Conclusion: These coins are made of gold.

Structure of Categorical propositions

A proposition is simply a claim about the world that has truth value. Every proposition can be expressed as a declarative (i.e., not a question or command) sentence.

Categorical Proposition is any statement which relates two classes or categories of entities. In other words, a categorical proposition is a proposition that relates two classes of objects. A **class** is a group of objects.

Example: Cats are mammals

Here, a class or category (Cats) are related to another class or category (Mammals). So, "Cats are mammals" is a Categorical proposition.

Components of Categorical Propositions

For a any categorical proposition, there are four components:

1. **Subject Term:** First category or class
2. **Predicate Term:** Second category or class
3. **Copula:** The grammatical link (verb) between subject and predicate terms.
4. **Quantifiers:** Words that specify the quantity of the subject and predicate terms.

Two Important terms of Categorical Proposition

Universal:

- Affirmative: **'All'** (includes all of a class)
- Negative: **'No'** (excludes all of a class)

Particular: 'Some' (includes part of a class)

Example: All cats are mammals

Here, All – **Quantifier**

Cats – **Subject Term**

Are – **Copula**

Mammals – **Predicate term**

Properties of Categorical Propositions

Each categorical proposition has both quantity and quality properties. The followings are the properties:

Quantity: The quantity of a categorical proposition is determined by the quantifier used.

Quality: The quality of a categorical proposition is determined according to whether the proposition asserts of denies an overlap between the classes.

Affirmative: if a proposition asserts an overlap between the classes or category named, the quality of the proposition is affirmative.

Negative: In this, a proposition denies an overlap between the categories or classes named,

Distribution: If the proposition refers to the entire class named by a term, that term is distributed and if it does not refer to the entire class named by a term, then the term is undistributed.

Types of Categorical Proposition

There are four types of categorical position:

- All politicians are liars (**Universal Affirmative**) – **A**
- No politicians are liars. (**Universal Negative**) – **E**
- Some politicians are liars. (**Particular affirmative**) – **I**
- Some politicians are not liars. (**Particular negative**) – **O**

Universal Affirmative (A- Propositions): In a proposition, if every member of the subject class is also a member of the predicate class, then it is called **Universal Affirmative Proposition**. In other words, whole of one class is included or contained in another class.

In an example **"All politicians are liars"**, every member of the class of politicians, is a member of another class of liars.

An universal affirmative proposition can be written as: **All S is P**

S and P represent the subject and predicate terms, respectively. Such a proposition affirms that the relation of class inclusion holds between the two classes and says that the inclusion is complete, or universal.

Universal Negative (E- Proposition): The proposition in which no members of the subject class are members of the predicate class.

In an example **"No politicians are liars",** no member of the class of politicians, is a member of another class of liars.

Systematically, Universal Negative proposition can be represented as: **No S is P**

Such a proposition affirms that the no relation of class inclusion holds between the two classes and says that the exclusion is complete, or universal.

Particular affirmative (I-proposition): The proposition in which at least one members of the subject class is also a member of the predicate class.

In an example "Some politicians are liars", some member of the class of politicians, is a member of another class of liars.

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 6

Systematically, **Particular affirmative** proposition can be represented as: **Some S is P**

Particular negative (O-proposition): The proposition in which **at least one** members of the subject class is **not** a member of the predicate class.

In an example **"Some politicians are not liars",** some member of the class of politicians, is a member of another class of liars.

Systematically, Particular affirmative proposition can be represented as: **Some S is not P.**

A brief of Four Kind of Categorical Proposition

Type	Quantifier	Subject	Copula	Predicate
A	All	S	are	P
E	All (No)	S	are not (are)	P
I	Some	S	are	P
O	Some	S	are not	P

Classical Square of Opposition

The opposition is an immediate inference grounded on the relation between propositions which have the same terms, but differ in quantity or quality (or both).
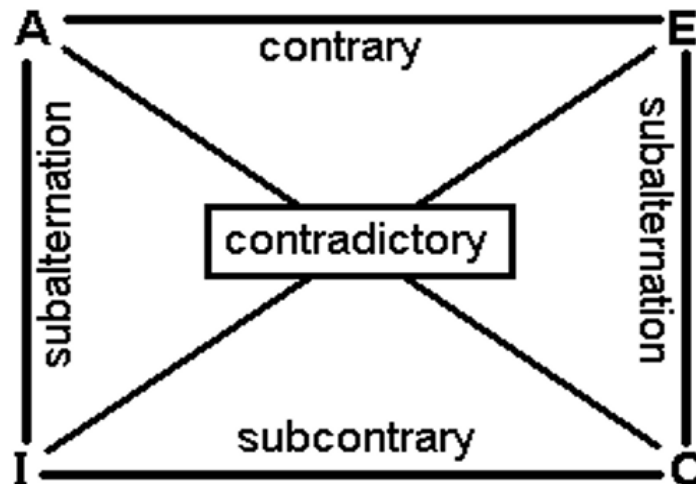
For any formal opposition between two propositions, it is essential that their terms should be the same. There can be no opposition between two such propositions as these:

- All angels have
- No cows are

The **square of opposition** shows us the logical inferences (**immediate** inferences) we can make from one proposition type (**A**, **I**, **E**, and **O**) to another.

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 7

Contradictory: Two propositions are said to be **contradictory** if both cannot be true, and both cannot be false at the same time. In other words, if the opposition is between two propositions, which differ both in quantity and quality.
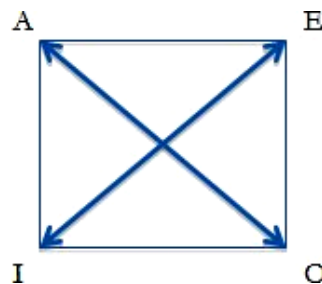
Here, **A –** All politicians are liars and **O** – Some politicians are not liars, and similarly, **E** and **I** propositions are contradictory.

Contrary: Universal propositions are said to be **contrary** because they cannot both be simultaneously true. In other words, the opposition is between two universals which differ in quality.
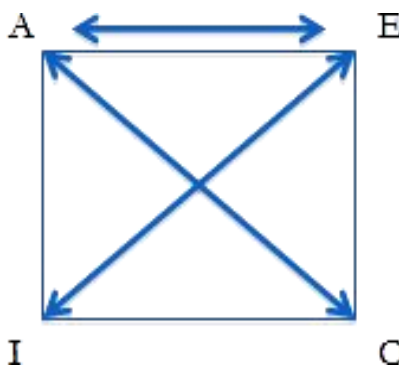
A- All politicians are liars is true, the **E-** No politicians are liars must be false.

Similarly, if the **E**-proposition is true, then the **A**-proposition is false.

Sub-contrary: If the two particular propositions can both be true but cannot both be false. In other words, the opposition is between two particulars which differ in quality. It means that they cannot both be simultaneously false.
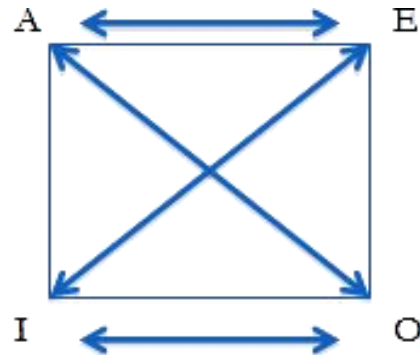
Sub alternation: The universal to particular and particular to universal inferences are called subalternation. In other words, the opposition is between two propositions which differ only in quantity.

These inferences are valid if the subaltern (**A** or **E**) is true, then the subaltern (**I** or **O**) is true. If the subaltern is false, then the subaltern is false.
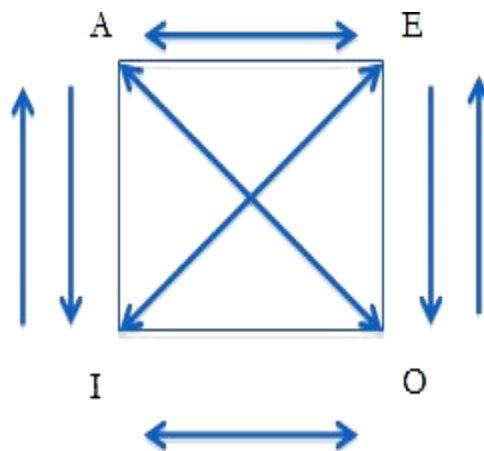
Categorical Syllogism

A syllogism is an argument containing two premises and a conclusion.

Categorical syllogism: A categorical syllogism is a syllogism whose premises and conclusion are categorical propositions.

For example:

Premises:

1. All hats are fashionable clothing.
2. All fashionable clothing is purple.

Conclusion:

3. So, some hats are purple.

A Standard Form Categorical Syllogism Contains:

- Two premises and a conclusion, each a standard form categorical proposition.
- **Major Term:** A major term which appears only in the first premise and the predicate of the conclusion.
- **Minor Term:** A minor term which appears only in the second premise and the subject of the conclusion
- **Middle Term:** A middle term which appears in both premises but not in the conclusion.
- **Major Premises:** The major premise is the premise which contains the major term.
- **Minor Premise:** The minor premise is the premise which contains the minor term.

Mood and Figure of Syllogism

The categorical syllogisms can be categorise as:

- The kind of standard form categorical proposition which appears as its first (i.e., major) premise,
- The kind of standard form categorical proposition which appears as its second (i.e., minor) premise, and

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 10

- The kind of standard form categorical propositions which appears as its conclusion.

Mood:

When the major premise, the minor premise, and the conclusion of a categorical syllogism arranage in a series of three letters (A, E, I, or O) corresponding to the type of categorical proposition is called MOOD of an argument.

Example:

Premises: All P are M

                    All S are M

Conclusion: Some S are P

The first premise is of the form **A**
The second premise is of the form **A**
The conclusion is of the form **I**.

Thus, **the mood of this Argument is AAI.**

In another example, to figure out the FORM of the premises and the conclusion in the following example:

Premises: No S are P (E-propostion)
Some S are P (I-Proposition)
Conclusion: Some S are not P (O-Proposition)

Thus, **the mood of this Argument is "EIO".**

When you have to determine the mood of a categorical syllogism, you need to find out which of the four forms of categorical proposition each line of the Argument is **(A, E, I, or O).**

Figure:

The figure of a categorical syllogism is **a number** which corresponds to the placement of the two middle terms.

For example, consider the following arguments:

P1. All mammals are creatures that have hair.
P2. All dogs are mammals.
P3. Therefore, all dogs are creatures that have hair.

Notice that the middle term in the major premise is on the LEFT, while the middle term in the minor premise is on the RIGHT. Whenever this happens, we say that the argument has **figure "1."**

There are four possible figures in the categorical syllogism:

Figure1: When the middle term is on the left in P 1, and on the right in P 2.
Figure2: When the middle term is on the right in both premises.
Figure3: When the middle term is on the left in both premises.
Figure4: When the middle term is on the right in P 1, and on the left in P 2.

Important Points of Mood and Figures:

- There are 64 different moods
- And each mood has 4 different figures.
- Thus, there are 64*4=**256 different kinds** of standard form categorical syllogisms.

Valid Argument Forms

There are two kinds of valid argument forms:

Unconditionally Valid Forms: There are **fifteen combinations** of mood and figures that are valid from the Boolean standpoint, and we call these "unconditionally valid"argument forms. The chart below depicts ALL of 15 the unconditionally valid argument forms.

UNCONDITIONALLY VALID FORMS

Figure 1	Figure 2	Figure 3	Figure 4
AAA	EAE	IAI	AEE
EAE	AEE	AII	IAI
AII	EIO	OAO	EIO
EIO	AOO	EIO	

Conditionally Valid Forms: There are some inferences that are NOT valid from the Boolean standpoint, which is valid from the Aristotelian standpoint. In addition to the fifteen unconditionally valid argument forms, there are nine conditionally valid argument forms for categorical syllogisms:

CONDITIONALLY VALID FORMS

Figure 1	Figure 2	Figure 3	Figure 4	Required condition
AAI	AEO		AEO	S exists
EAO	EAO			
		AAI	EAO	M exists
		EAO		
			AAI	P exists

Rules for Validity

A standard form categorical syllogism is valid on the modern theory if and only if each of the following five propositions is all true of it. A standard form categorical syllogism is valid on the traditional theory if and only if each of the first four propositions is true of it.

1. The middle-term is distributed at least once.
2. If a term is distributed in a conclusion, then that term is distributed in one of the premises.

3. There is at least one affirmative premise.
4. There is a negative premise if and only if there is a negative conclusion.
5. If both premises are universal, then the conclusion is universal.

Informal and Formal Fallacy

Simply, a fallacy is a mistake in reasoning. In other words, a defect in an argument that misleads the mind is called a fallacy. There are two types of fallacy:

Formal Fallacies: A fallacy in which there is the involvement of an error in the form, arrangement, or technical structure of an argument is called Formal Fallacy.

Informal Fallacies: Informal fallacies are a matter of unclear expression that deal with the logic of the meaning of language. Opposite to it, formal fallacies deal with the logic of the technical structure.

An informal fallacy involves such things as:

- the misuse of language such as words or grammar,
- misstatements of fact or opinion,
- misconceptions due to underlying presuppositions, or
- just plain illogical sequences of thought.

Uses of Language in Logic

A logic always deals with the analysis and evaluation of arguments. Since arguments are expressed in language, the study of arguments requires a carefully attention to language in which arguments are expressed.

The followings are three important uses of language:

1. **Informative,**
2. **Expressive and**
3. **Directive uses of language.**

Informative use of language: It involves an effort to communicate some content or to describe something or to give information about something. When I say a

Please Be Careful from Fake Person buy our Notes From Our Official Website **(DIWAKAR EDUCATION HUB)** only OR Call 7310762592.

Page 14

child, "The Second of October is the Gandhi Jayanti." **The language I used is informative.**

This kind of use of language presumes that the content of what is being communicated is true, so it will be our main focus in the study of logic.

When a sentence is used informatively, it reports that something has some feature or that something lacks some feature. Consider the following two sentences:

1. Parrot has a feather.
2. Parrot is not mammals.

The first proposition reports that having feather is a feature of a Parrot. The second proposition reports that Parrot do not have some essential qualities found in mammals. In, both cases it provides information about the world. Two main aspects of this function are generally noted: (1) evoking certain feelings and (2) expressing feelings.

Expressive discourse, qua expressive discourse, is best regarded as neither true or false.

Expressive use of Language: This type of l**anguage is often used to express our emotions, feelings, or attitudes. For example:** It's too bad!, It's wonderful!, etc.

When language is used expressively or emotively, it cannot be characterized as true or false.

Directive uses of language: When the use of language is often to give direction as Commands, requests, instructions, questions etc., to do or not to do something.

Consider the following examples:

1. Finish your homework.
2. Wash your clothes.
3. Are you feeling well?

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 15

UGC NET

Paper 1

UGC - NET

Information and Communication Technology (ICT)

Diwakar education hub

India's Best Institute of UGC NET & CSIR NET

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 1

Chart

INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)

Information and Communications Technology (ICT) is technology that is used to handle communications processes such as telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions.

Although ICT is often considered an extended synonym for information technology (IT), its scope is, in some ways, more broad. ICT is often used to describe the convergence of several technologies, and the use of common transmission lines carrying very diverse data and communication types and formats.

In a very simplified sense, ICT is used to talk about all of the technologies that facilitate communications.

With that in mind, the term ICT has had several differing definitions applied to it. It's generally associated with consolidating and managing telecom infrastructure and converging technologies that have common transmission lines.

In some cases, ICT is also associated with delivering telecommunication services to underserved areas, or promoting more vibrant telecommunications and IT networks and services to facilitate career development.

To look at how this works, let's consider a given carrier that might offer a modern hybrid cloud model based on various principles or philosophies such as connectivity, security and unified channels. This type of integration of telecom and wireless services would sit in the category of ICT.

In a more traditional example, converging technologies that exemplify ICT might include the merging of audiovisual, telephone and computer networks through a common cabling system. Internet service providers (ISPs) commonly provide internet, phone and television services to homes and businesses through a single optical cable, so that is considered an example of ICT implementation.

Meaning of Information and Communication Technology

Information and Communication Technology can simply be defined in its simplest form as an electronic medium for creating, storing, manipulating receiving and sending information from one place to another.It makes message delivery faster, more convenient, easy to access, understand and interpret. It uses gadgets such as cell phones, the Internet, wireless network, computer, radio, television, Satellites, base stations etc. These resources are used to create, store, communicate, transmit and manage information.

Information and communications technology (ICT) refers to all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions. Although ICT is often considered an extended synonym for information technology (IT), its scope is more broad.

Information technology (IT) is the use of computers to store, retrieve, transmit, and manipulate data, or information, often in the context of a business or other enterprise. IT system is generally an information system, a communications system or, more specifically speaking, a computer system – including all hardware, software and peripheral equipment – operated by a limited group of users. The term is commonly used as a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones. IT is considered to be a subset of information and communications technology (ICT).

ICT encompasses both the internet-enabled sphere as well as the mobile one powered by wireless networks. It also includes antiquated technologies, such as landline telephones, radio and television broadcast – all of which are still widely used today alongside cutting-edge ICT pieces such as artificial intelligence and robotics. The list of ICT components is exhaustive, and it continues to grow. Some components, such as computers and telephones, have existed for decades but smartphones, digital TVs and robots, are more recent entries.

Components of ICT

Components of ICT

The term information and communications technology (ICT) is generally accepted to mean all technologies that, combined, allow people and organizations to interact in the digital world.

- **Cloud computing** – The term is generally used to describe data centers available to many users over the Internet. Large clouds, predominant today, often have functions distributed over multiple locations from central servers. If the connection to the user is relatively close, it may be designated an edge server. Clouds may be limited to a single organization (enterprise clouds), be available to many organizations (public cloud) or a combination of both (hybrid cloud). The largest public cloud is Amazon AWS.

- **Software** is a set of instructions, data or programs used to operate computers and execute specific tasks. Opposite of hardware, which describes the physical aspects of a computer, software is a generic term used to refer to applications, scripts and programs that run on a device. Software can be thought of as the variable part of a computer and

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 5

hardware the invariable part. Software is often divided into application software, or user downloaded programs that fulfil a want or need, and system software, which includes operating systems and any program that supports application software.

• **Hardware** – in the context of technology, refers to the physical elements that make up a computer or electronic system and everything else involved that is physically tangible. This includes the monitor, hard drive, memory and the CPU. Hardware works hand-in-hand with firmware and software to make a computer function. Hardware is only one part of a computer system; there is also firmware, which is embedded into the hardware and directly controls it.

• **Digital Transactions** can be broadly defined as online or automated transactions that take place between people and organizations—without the use of paper. Digital transactions save time and money, resulting in a better bottom line. Customer experiences are also enhanced (think of the convenience of e-Signing versus having to print a contract, sign it, and then return it by mail or fax). And digital transactions improve tracking capabilities—which helps reduce errors.

• **Digital Data** is data that represents other forms of data using specific machine language systems that can be interpreted by various technologies. The most fundamental of these systems is a binary system, which simply stores complex audio, video or text information in a series of binary characters, traditionally ones and zeros, or «on» and «off» values.

• **Internet access** is the process of connecting to the internet using personal computers, laptops or mobile devices by users or enterprises. Internet access is subject to data signalling rates and users could be connected at different internet speeds. Internet access enables individuals or organizations to avail internet services/web-based services. The internet began to gain popularity with dial-up internet access. In a relatively short time, internet access technologies changed, providing faster and more reliable options. Currently, broadband technologies such as cable internet and ADSL are the most widely used methods for internet access. The speed,

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 6

(3) Inductive

(4) Analogical

Answer: (4)

29. In the context of communication, usual sequence is

(1) Language —> Communication —> Society —> Civilization

(2) Communication —> Society —> Language —> Civilization

(3) Communication —> Language —> Society —> Civilization

(4) Language —> Society —> Communication —> Civilization

Answer: (3)

30. If REASON is coded as 5 and GOVERNMENT as 9, than what is the code for ACCIDENT?

(1) 6

(2) 7

(3) 8

(4) 9

Answer: (2)

Consider the following table that shows expenditures of a company (in lakh rupees) per annum over the given years. Answer the questions based on the data contained in the table:

31. The approximate ratio between the total expenditure on taxes for all the years and the total expenditure on transport for all the years is

(1) 31 : 40

(2) 25: 36

(3) 27 : 30

(4) 31 : 36

Answer: (4)

32. The total amount of bonus paid by the company during the given period is approximately what percent of the total amount of salary paid during this period?

(1) 0.9%

(2) 1.3%

(3) 1.6%

(4) 2.0%

Answer: (2)

33. Total expenditure of all the items in 2008 was approximately what percent of the total expenditure in 2012?

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 66

(1) 66%

(2) 69%

(3) 72%

(4) 75%

Answer: (1)

34. The approximate ratio between the total expenditure of the company in the year 2008 and the total expenditure of the company in the year 2009 is

(1) 57: 75

(2) 52: 68

(3) 57: 68

(4) 68: 57

Answer: (3)

35. What is the average amount of interest per year which the company had to pay (in Rupees) during this period?

(1) 30.5 Lakh

(2) 32.7 Lakh

(3) 33.7 Lakh

(4) 35.5 Lakh

Answer: (3)

36. Which of the following statements represent the main functions of UGC?

(i) Recognition of institutions

(ii) Maintenance of quality and standards

(Iii) Appointment of Vice Chancellor

(iv) Giving grants to institutions

(v) Making state governments responsible for educational development

Choose the correct answer from the options given below:

(1) (i), (ii) and (iii)

(2) (i), (iii) and (iv)

(3) (i), (ii) and (iv)

(4) (ii), (iii) and (v)

Answer: (3)

37. The main aim of the faculty recharge scheme of UGC was to

(1) Address the shortage of faculty in higher education institution

(2) Upgrade the teaching skills of the faculty

(3) Upgrade the research infrastructure for the faculty in colleges and universities

(4) Strengthen the academia — industry linkage

Answer: (1)

38. Which of the following is an online store house of all academic awards like certificates, diplomas, degrees marksheets etc?

(1) SWAYAM

(2) National Digital Library

(3) National Academic Library

(4) National Academic Depository

Answer: (4)

39. The convenient place to store contact information for quick retrieval in e-mail is

(1) Address box

(2) Message box

(3) Address book

(4) Message book

Answer: (3)

40. Montreal protocol aims at

(1) Reduction in emissions of green house gases

(2) Phasing out ozone depleting substances

(3) Prohibiting transboundary movement of hazardous waste

(4) Enhancing cooperation among UN member states for peaceful uses of nuclear energy

Answer: (2)

41. SMTP is an acronym for

(1) Simple Mail Transport Protocol

(2) Simple Mail Terminal Protocol

(3) Simple Mail Transfer Protocol

(4) Simple Mail Transition Protocol

Answer: (3)

42. In large parts of Eastern India, the ground water is contaminated by

(1) Arsenic

(2) Lead

(3) Mercury

(4) Nickel

Answer: (1)

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 68

43. Taj Mahal is mainly threatened by the deleterious effects of

(1) Sulphur dioxide

(2) Chlorine

(3) Oxygen

(4) Hydrogen

Answer: (1)

44. Two statements are given

Statement I: Earthquake 'A' is 5 on Richter scale and Earthquake 'B' is 8 on the same scale. Earthquake 'B' has 1000 times the wave amplitude compared to 'A'.

Statement II: The energy released in 'B' is three times that of 'A'

Choose the correct option:

(1) Statement I is correct and Statement II is incorrect

(2) Statement I and II are correct

(3) Statement II is correct and I is incorrect

(4) Statement I and II are incorrect

Answer: (1)

45. A computer has main memory of 960 KBytes. What is the exact number of bytes contained in this memory?

(1) 960 x 8

(2) 960 x 1000

(3) 960 x 1024

(4) 960 x 1024 x 1024

Answer: (3)

46. Name the scheme which facilitates academic and research collaboration between Indian Institution and the best institution in the world

(1) ICSSR — IMPRESS

(2) Sta Development Scheme

(3) SPARC

(4) Institutional Development Scheme

Answer: (3)

47. Which of the following file format is not a video file format?

(1) AW

(2) .MOV

(3) .MP4

(4) .JPEG

Answer: (4)

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 69

48. For the day to day administration of University, which of the following bodies is responsible?

(1) Senate

(2) Syndicate/ Executive council

(3) Student council

(4) Academic council

Answer: (2)

49. Efficiency of electrical power generation is least amongst the following sources of energy in case of

(1) Solar

(2) Wind

(3) Geothermal

(4) Nuclear

Answer: (3)

50. Which of the following is a non-conventional learning programme in higher education?

(1) Swayam

(2) Face-to-face teaching-learning

(3) Tutorial class

(4) Seminar

Answer: (1)

51. Which among the following is the best field of study to improve the ability of students Experiment and analyse?

1. History

2. Languages

3. Economics

4. Science

Answer: (4)

52. Which among the following reflects best the quality of teaching in a classroom?

1. Through the use of many teaching aids in the classroom

2. Through the quality of questions asked by students in classroom

3. Through full attendance in the classroom

4. Through observation of silence by the students in classroom

Answer: (2)

53. Among the following which one is not an instructional material?

1. Audio podcast

2. YouTube video

Please Be Careful from Fake Person buy our Notes From Our Official Website (DIWAKAR EDUCATION HUB) only OR Call 7310762592.

Page 70

3. Printed study guide

4. Overhead projector

Answer: (4)

54. Suppose as a teacher you are training your students in public speaking and debate. Which among the following is most difficult to develop among the students?

1. Control over emotions
2. Concept formulation
3. Using / selecting appropriate language
4. Voice modulation

Answer: (1)