

Paper – I

Note : • This paper consists of **Sixty (60)** multiple choice questions, each question carrying **two (2)** marks.

- Candidate is expected to answer any **Fifty (50)** questions.
- In case more than **Fifty (50)** questions are attempted, only the first **Fifty (50)** questions will be evaluated.

1. In a Ph.D. thesis which one is the correct sequence for showing scheme of Chapterisation ?
 - (1) Survey of related studies, Introduction, Design of the study, Data-Analysis and interpretation, Conclusions and generalisations, suggested further study, References, Appendix
 - (2) Introduction, Design of study, Data Analysis and Interpretation, Generalizations, Conclusions and Survey of related studies and suggestions for further research, References and Appendix
 - (3) Introduction, Survey of related studies, Design of study, Data-presentation; analysis & Interpretation, Formulation of generalization & Conclusions, Suggestions for further research, References & Appendix
 - (4) Survey of related studies, References, Introduction, Design of study, Data analysis and interpretation, Conclusions and generalizations, Suggestions for further research, Appendix
2. Which of the following is not the critical feature of qualitative research ?
 - (1) Actual settings are the direct source of data.
 - (2) Data take the forms of words or pictures.
 - (3) Seeking to establish relationships among measured social facts.
 - (4) Researcher becomes immersed in the situation, present or past related to the phenomena.
3. A detailed description of methodology of research is required in
 - (1) Thesis/Dissertation
 - (2) Symposium/Workshop
 - (3) Seminar paper/Articles
 - (4) Conference and Seminar Papers
4. Research ethics has a direct connection more often with which stages of research ?
 - (1) Defining and delimiting the scope of research.
 - (2) Problem formulation and reporting of research findings.
 - (3) Defining the population and deciding the sampling technique for research.
 - (4) Deciding about statistical techniques and data analysis.

Read the following passage carefully and answer questions from 5 to 10 :

Many aspects of the motion-picture industry and its constituent companies are dissimilar to those observable in advanced-technology industries and firms. For instance, company longevity does not represent a consistent concern across the two organisational contexts. In the advanced-technology company for example, one new-product innovation – which is expected to generate financial returns to the firm – is insufficient for the company to be successful.

Rather, a stream of new product innovations is required. By contrast with the independent production company of this case, each new film – which is expected to generate financial returns to the principals – is sufficient for the company to be successful. Any subsequent new films involving the firm's participants will be produced by a different independent company.

As another instance, people's learning is expected to have different contributors and beneficiaries across the two organizational contexts. In the advanced-technology company, for example, each new product innovation provides an opportunity for participants on the project team to learn and acquire experience, and this same company intends to retain such participants, hence, benefit from their increased experience on the next project. By contrast with the independent production company, each new film provides an opportunity for participants on the project team to learn and acquire this experience also, but this same company has little or no expectation of retaining such participants, and hence, benefitting from their increased experience in the next project.

Experience is paramount in the motion-picture industry. Generally, on film projects, budgets are very tight, and schedules are very demanding. People are hired largely based on their experience and are expected to perform well immediately when called to do so. There is negligible slack time or margin for learning through trial and error, but experienced people learn exactly through trial and error. Because experience is valued so highly and film-production houses have such short time horizons, entry into the industry is very difficult for most people. Further, the role played by schools and colleges is minimal in this industry. Some skills and techniques can be learned and refined through formal education (e.g., acting schools, theatre, film degrees), but the majority come through direct experience. Mentoring plays an important role. True, the film business focuses heavily on exploitation over exploration. Yet success of the industry as a whole is critically dependent upon learning and exploration overtime.

Answer the following questions :

5. What is not a consistent concern across the two organisational contexts ?
 - (1) Dissimilarity
 - (2) Product package
 - (3) Financial return
 - (4) Company longevity
6. What will be sufficient for an independent production company to be successful ?
 - (1) New product innovations
 - (2) Financial returns from each new film
 - (3) Active role by firm's participants
 - (4) Organisational context
7. What does an advanced-technology company expect from the learning experience of its participants ?
 - (1) Benefit for the next project
 - (2) Opportunity for more learning
 - (3) Little expectation of retaining them
 - (4) Help in marketing the previous product
8. What is not the expectation of an independent production company in the case of its participants ?
 - (1) Absence from the next project.
 - (2) Retention for the next project.
 - (3) Participation in the current project.
 - (4) Use of opportunity to acquire experience.
9. Why do film production houses value experience highly ?
 - (1) Because of the importance of trial and error methods.
 - (2) Because of the margin for learning.
 - (3) Because of short time horizons.
 - (4) Because it allows easy entry to everyone into the film world.
10. According to the author, what has been the focus of film business ?
 - (1) Formal education
 - (2) Mentoring
 - (3) Exploitation
 - (4) Indirect experience

11. Internal and external factors that affect message reception by the students in the classroom are referred to as
- (1) feedback (2) fragmentation
(3) channelisation (4) noise
12. A teacher in a classroom has immediate control over
- (1) the self, selected methods of communication and the message.
(2) the audience, the noise and the reception.
(3) the feedback, the technology and the audience experience.
(4) the communication channel, other communicators, and external factors.
13. What do communicated words carry in a classroom situation ?
- (1) Inspiration, controversy and introspection
(2) Diversion, criticism and irrationality
(3) Insipidity, irrationality, and non-acceptance
(4) Power, structure and tradition
14. As a good classroom communicator, you are supposed to know your
- (1) audience emotions (2) silent cues
(3) artful pauses (4) counter arguments
15. Figure out the components of non-verbal communication in a classroom from the following :
- (1) Facial expression, cultural space and seating arrangement
(2) Speed of utterance, feel good factor and acoustics
(3) High sound, physical ambience and teacher-learner distance
(4) Facial expression, kinesics and personal space
16. Which of the following are the basic factors of effective listening ?
- (1) Opinionation, stare and glare and interruptions
(2) Aggressive questioning, continuous cues and frequent movement
(3) Me-too-ism, glancing sideways, and offering advice
(4) Acknowledgement of thoughts, reflection, and asking open-ended questions
17. In a particular code, HOSPITALS is coded as HSOLSAPTI. The code of BIOLOGICALS will be
- (1) BLICOALIOSG (2) BOLGICAILOS
(3) SBLAOILOBCG (4) BSILOALCOIG
18. In the series
1, 5, 13, 25, 41,
the next term is
- (1) 59 (2) 63
(3) 61 (4) 68

19. At present, a mother is 3 times older than her son. After 5 years, the sum of their ages will be 70 years. The age of the mother after 10 years will be
- (1) 40 (2) 55
(3) 45 (4) 60
20. In the series
AYD, BVF, DRH, GMJ, ? the next term is
- (1) GLK (2) HLM
(3) LHM (4) KGL
21. C and D are sisters. A and B are brothers. E is son of A and brother of D. B is related to C as
- (1) Brother (2) Son
(3) Uncle (4) Father-in-law
22. Anil played 8 cricket matches. The mean (average) of the runs was found to be 80. After playing four more matches, the mean of the runs of all the matches was found to be 70. The total runs made in the last four matches is
- (1) 400 (2) 300
(3) 200 (4) 100
23. If two propositions are connected in such a way that they cannot both be false although they may both be true, then their relationship is called
- (1) Contrary (2) Subcontrary
(3) Contradictory (4) Subalternation
24. Which one among the following is not a characteristic of a deductive type of argument ?
- (1) The conclusion follows from the premise/premises necessarily.
(2) The argument admits degree of complexity.
(3) The argument provides us knowledge about matters of fact.
(4) The argument must be either valid or invalid.
25. Select the code which states the condition of an invalid deductive argument :
- (1) All the premises are true but the conclusion is false.
(2) Some of the premises are true but the conclusion is false.
(3) All the premises are false and the conclusion is also false.
(4) All the premises are true and the conclusion is also true.
26. Given below are two premises, with four conclusions drawn from them (taking singly or together); which conclusions are validly drawn ? Select the correct answer from the codes given below :
- Premises :** (i) All bats are mammals.
(ii) Birds are not bats.
- Conclusions :** (a) Birds are not mammals.
(b) Bats are not birds.
(c) All mammals are bats.
(d) Some mammals are bats.
- Codes :**
- (1) (a), (b) and (d) (2) (b) and (d)
(3) (a) and (c) (4) (b), (c) and (d)

27. When a definition implies a proposal to use the definiendum to mean what is meant by the definiens it is called
- (1) Lexical definition (2) Stipulative definition
 (3) Precising definition (4) Persuasive definition
28. Select the code which is not correct :
 An analogical argument is strengthened by
- (1) increasing the number of entities.
 (2) increasing the number of similar respects.
 (3) reducing the claim made earlier stronger.
 (4) making the conclusion stronger when premises remain unchanged.

Consider the following two tables (I and II) that show the percentage of students in each faculty at University and the number of foreign students in the Science faculty. These percentages have been rounded to the nearest whole number. There are a total of 1049 students in the science faculty. Study these tables I and II and answer the questions that follow (Questions 29 – 31) :

I : Students Facultywise

Name of Faculty	% of Students
Computing	22
Business	14
Science	23
Engineering	9
Arts	21
Medicine	5
Law	6

II : Foreign Students in Science Faculty

Foreign Students	Number of Science Students
American	79
Australian	4
African	2
Chinese	6
European	21

29. Approximately, what percentage of students in the Science faculty is that of foreign students ?
- (1) 14% (2) 9%
 (3) 30% (4) 11%
30. Approximately, how many students belong to the Engineering faculty ?
- (1) 420 (2) 410
 (3) 390 (4) 400
31. In case, there are 34 European medical students, then approximately, what is their percentage in the medicine faculty ?
- (1) 13% (2) 18%
 (3) 12% (4) 15%

A college has a total of 800 MCA students, 80% of whom are in class MCA-III and remaining are equally divided between class MCA-I and class MCA-II. The proportion of female students and the proportion of vegetarian students in the college are indicated as under through the table. Answer questions 32 to 34 based on this information.

Proportion of females and proportion of vegetarians in each class

Class	Female (F)	Vegetarian (V)
MCA-I	0.40	
MCA-II	0.45	0.50
MCA-III		0.55
Total	0.525	0.53

For example, in the table above, 0.525 is the total proportion of female students and 0.53 is the total proportion of vegetarian students in the college.

32. What is the percentage of female students in class MCA-III ?
 (1) 40 (2) 45
 (3) 50 (4) 55
33. What is the percentage of vegetarian students in class MCA-I ?
 (1) 40 (2) 45
 (3) 50 (4) 55
34. How many total non-vegetarian students are there in class MCA-I and class MCA-II ?
 (1) 72 (2) 88
 (3) 78 (4) 92
35. Which of the following statements regarding the features of Information and Communication Technology (ICT) is/are true ?
 I. ICT are the main instruments for the creation of computer networks and the applications based on them.
 II. ICT support the spread of information and knowledge, separating the content from the place where it belongs physically.
 III. The digital and virtual nature of most of ICT products allow the expenditure for them to be maximized.
- Codes :**
 (1) I and II only (2) I and III only
 (3) II and III only (4) I, II and III

36. If one GigaByte is equal to 2^{30} Bytes of data storage, then 1024 TeraBytes is equal to _____ bits of data storage.
- (1) 2^{50} (2) 2^{53}
 (3) 2^{40} (4) 2^{56}
37. The software used to navigate through the web is known as
- (1) Website (2) Web Browser
 (3) Internet (4) World Wide Web
38. With regard to e-mail, what does Bcc : mean ?
- (1) Blind Computer Communication : - The users specified in the Bcc : field will get the e-mail and see the addresses in the to : and cc : fields.
 (2) Blind Carbon Copy : - The users specified in the Bcc : field will get the e-mail and see the addresses in the to : and cc : fields.
 (3) Blind Computer Communication :- The users specified in the Bcc : field will get the e-mail but it will be an audio file because this is how blind people get e-mail.
 (4) Blind Carbon Copy : The users specified in the Bcc : field will get the e-mail but will not see the addresses in the to : and cc : fields.
39. Random Access Memory (RAM), a form of computer storage, is a _____ memory.
- (1) Non-volatile (2) Volatile
 (3) Permanent (4) Secondary
40. In Computer Networking, HTTP is referred to as a stateless protocol as servers do not maintain any information about past client requests. HTTP is an acronym for
- (1) Hyper Text Translation Protocol (2) Hyper Text Transfer Protocol
 (3) High TeraByte Transfer Protocol (4) Hypervisor Test Translation Protocol
41. The arsenic pollution in ground water in Bangladesh and parts of India is due to
- (1) industrial waste (2) thermal power plants
 (3) natural sources (4) agricultural practices
42. Among the following air pollutants which directly impacts human health as well as climate ?
- (1) Soot (2) Sulphur dioxide
 (3) Oxides of nitrogen (4) Chlorofluoro carbons

- 43. Assertion (A) :** The problems of environmental sustainability are difficult to resolve.
Reason (R) : Our understanding how environment works and how different human choices affect environment is inadequate.

Choose the correct code :

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A).
(2) Both (A) and (R) are correct, but (R) is not the correct explanation of (A).
(3) (A) is true and (R) is false.
(4) (A) is false and (R) is true.
- 44.** The percentage share of electrical power from solar energy in the total electric power generation from all renewable energy sources sought to be achieved by Indian government by the year 2022, is
- (1) ~ 57.1% (2) ~ 65.5%
(3) ~ 47.5% (4) ~ 75%
- 45.** As part of Intended Nationally Determined contributions, Indian government through additional forest and tree cover has resolved to create an additional carbon sink (in terms of carbon dioxide equivalent) by year 2030 to the extent of
- (1) 3.5 to 4 billion tons (2) 2.5 to 3 billion tons
(3) 1.5 to 2 billion tons (4) 1 to 1.5 billion tons
- 46.** Which of the following is a meteorological hazard ?
- (1) Avalanche (2) Coastal erosion
(3) Landslide (4) Blizzard
- 47.** Which of the following universities/institutes is ranked first in the India Rankings 2016 ?
- (1) Jawaharlal Nehru University, New Delhi
(2) Central University, Hyderabad
(3) Indian Institute of Science, Bangalore
(4) Institute of Chemical Technology, Mumbai
- 48.** Which of the following statements are correct about distance education in India ?
- (a) It supplements formal education.
(b) It reduces the cost of education.
(c) It replaces the formal education.
(d) It enhances access to education.

Select the correct answer from the codes given below :

Codes :

- (1) (a), (b), (c) and (d) (2) (a), (c) and (d)
(3) (a), (b) and (d) (4) (b), (c) and (d)

49. Which of the following are statutory bodies ?

- (a) Election Commission of India
- (b) University Grants Commission (UGC)
- (c) All India Council for Technical Education (AICTE)
- (d) National Assessment and Accreditation Council (NAAC)

Select the correct answer from the codes given below :

Codes :

- (1) (a), (b) and (c)
- (2) (b), (c) and (d)
- (3) (b) and (c)
- (4) (b) and (d)

50. Which of the following statements are not correct in respect of Rajya Sabha ?

- (a) It has same powers as those of Lok Sabha.
- (b) It can pass a vote of no-confidence against the Council of Ministers.
- (c) It can amend a money bill.
- (d) It can be dissolved during emergency.

Select the correct answer from the codes given below :

Codes :

- (1) (b) and (c)
- (2) (b), (c) and (d)
- (3) (a), (b) and (c)
- (4) (a), (b), (c) and (d)

51. Which of the following statement(s) is/are correct about the powers of the Governor of a State ?

- (a) He has the power to dissolve the Legislative Assembly.
- (b) He has the power to appoint judges of the State High Court.
- (c) He has the power to grant pardon in case of death sentence.
- (d) He has diplomatic powers.

Select the correct answer from the codes given below :

Codes :

- (1) (a) only
- (2) (a) and (b)
- (3) (a), (b) and (d)
- (4) (a), (b) and (c)

52. In which of the following cases, the principle of natural justice (Hear the other party) must be followed ?

- (a) Dismissal of an employee
- (b) Supersession of a municipality
- (c) Threat to national security
- (d) Disciplinary action against a student or an employee

Select the correct answer from the codes given below :

Codes :

- (1) (a) and (b)
- (2) (a) and (d)
- (3) (a), (b) and (d)
- (4) (a), (b), (c) and (d)

56. Assertion (A) : Teaching aids have to be considered as effective supplements to instruction.
Reason (R) : They keep the students in good humour.
 Choose the correct answer from the codes given below :

Codes :

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (2) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (3) (A) is true, but (R) is false.
- (4) (A) is false, but (R) is true.

57. The purpose of formative evaluation is to

- (1) grade students' learning outcomes.
- (2) accelerate students' learning performance.
- (3) check students' performance graph.
- (4) provide feedback to teacher effectiveness.

58. Which of the following learner characteristics are likely to influence the effectiveness of teaching aids and evaluation systems to ensure positive results ?

- (1) Learner's family background, age and habitation.
- (2) Learner's parentage, socio-economic background and performance in learning of the concerned subject.
- (3) Learner's stage of development, social background and personal interests.
- (4) Learner's maturity level, academic performance level and motivational dispositions.

59. For advancing knowledge, the latest strategy used by mankind is

- (1) consulting an authority
- (2) deductive reasoning
- (3) scientific thinking
- (4) inductive reasoning

60. There are two sets given below, Set-I consists of methods of research and Set-II indicates their procedural characteristics. Match the two sets and choose your answer from the codes given below :

Set – I

(Research method)

- a. Experimental method
- b. Expost facto method
- c. Descriptive method
- d. Symbolic interactionism
- e. Action research

Set – II

(Procedural Characteristics)

- i. Interventions to ameliorate a given situation
- ii. Explaining patterns of behaviour in terms of meanings and their representations which people share.
- iii. Manipulating an independent variable in controlled conditions and measuring its effect on dependent variable.
- iv. Depending on primary and secondary sources of data.
- v. Obtaining information concerning the current status of phenomena.
- vi. Observing the effect on dependent variable and making probes into factors/variables which explain it.
- vii. Exegetic analysis.

Codes :

- | | | | | | |
|-----|-----|-----|-----|----|-----|
| | a | b | c | d | e |
| (1) | i | iii | iv | v | vii |
| (2) | iii | iv | v | vi | vii |
| (3) | i | ii | iii | iv | v |
| (4) | iii | vi | v | ii | i |

SUBJECT CODE & NAME:-

QNO	KEY														
1	3	26	2	51	1										
2	3	27	2	52	3										
3	1	28	4	53	2										
4	2	29	4	54	1										
5	4	30	2	55	3										
6	2	31	4	56	2										
7	1	32	4	57	2										
8	2	33	1	58	4										
9	3	34	2	59	3										
10	3	35	1	60	4										
11	4	36	2												
12	1	37	2												
13	4	38	2												
14	3	39	2												
15	4	40	2												
16	4	41	3												
17	4	42	1												
18	3	43	1												
19	2	44	1												
20	4	45	2												
21	3	46	4												
22	3	47	3												
23	2	48	3												
24	3	49	3												
25	1	50	4												

9=No option is correct or the question is wrong, A=1&2,B=1&3,
C=1&4,D=1,2&3,E=1,2&4,F=1,3&4,G=1,2,3&4,H=2&3,I=2&4,J=2,3&4,K=3&4