

UGC NET PAPER-1

GENERAL APTITUDE

Sample Question Paper-1

Time Allotted: 1 Hour

Maximum Marks: 100

Important Instructions:

1. Each question carries 2 marks.
2. This paper consists of fifty (50) multiple-choice type of questions.
3. Each item has four alternative responses marked (a), (b), (c) and (d). You have to darken the oval as indicated below on the correct response against each item.
Example: where (c) is the correct response.
4. Your responses to the items are to be indicated in the **Answer Sheet**.
5. **Use of any calculator or log table etc., is prohibited.**
6. **Negative Marking: For each incorrect answer 0.5 marks shall be deducted.**

Direction for questions 1 to 5:

Based on the data in the table, answer the questions that follow. The following table presents the percentage breakup of employees and the ratio of male to female employees working in five different organisations (A to E). There is a total number of 35,000 employees working in all five organisations.

Organisation	Percentage (%) of employees	Ratio of Male to Female employees
A	18	3:7
B	22	11:9
C	31	3:2
D	15	2:3
E	14	1:3

1. The total number of employees in Organisation D is approximately what percent of the total number of employees in Organisation C?
(a) 48.39% (b) 44.56%
(c) 48.20% (d) 45.38%
2. What is the ratio of the number of employees in Organisation C to the number of employees in Organisation A?
(a) 216:278 (b) 217:126
(c) 216:217 (d) 200:100
3. What is the sum total of the number of females in Organisation D and the number of males in Organisation E?
(a) 4,375 (b) 4,385
(c) 4,395 (d) 4,335
4. What is the total number of females in all the five organisations together?
(a) 15,960 (b) 35,000
(c) 19,040 (d) 19,140
5. What is the difference between the number of males in Organisation D and the number of females in Organisation B?
(a) 3,465 (b) 1,365
(c) 2,100 (d) 1,580
6. Feedforward is:
(a) Information provided before sending the primary message is
(b) Brief introduction of the message
(c) To do or say something before something
(d) Sign to convey something
7. Name the fallacy committed in the argument
All dogs are mammals.
No cats are dogs.
Therefore, no cats are mammals.
Choose the correct answer from the options given below.
(a) Existential Fallacy
(b) Illicit Major
(c) Illicit Minor
(d) Undistributed Middle
8. Ravi's salary is increased by 20%. On the increased salary, the tax rate is 10% higher. The percentage increase in tax liability is:
(a) 32% (b) 22%
(c) 20% (d) 40%
9. Below are given two sets – Disease (Set-I) and Mode of spread (Set-II). Match the two sets and

indicate your answer by selecting the correct code:

Disease	Mode of spread
A. Cholera	I. Lack of water to maintain cleanliness
B. Trachoma	II. Involves water contact but not ingestion
C. Schistosomiasis	III. Ingestion of polluted water
D. Dengue	IV. Requires host

Choose the correct code from the options given below.

- (a) A - II, B - III, C - I, D - IV
 (b) A - III, B - I, C - II, D - IV
 (c) A - IV, B - II, C - II, D - III
 (d) A - III, B - II, C - I, D - IV
10. What per cent (%) of the total non-renewable energy is used in India?
 (a) 32% (b) 56%
 (c) 63% (d) 75%
11. Given below are two statements.
Statement I: People use verbal cues more than non-verbal cues.
Statement II: Verbal cues have better believability than non-verbal cues.
 In light of the above statements, choose the correct answer from the options given below.
 (a) Statement I is correct but statement II is incorrect.
 (b) Statement II is correct but statement I is incorrect.
 (c) Both statements I and II are incorrect.
 (d) Both statements I and II are correct.
12. Which of the following characteristic(s) is/are not related to a competent communicator?
 A. Culturally neutral
 B. Culturally sensitive
 C. Totally ethical
 D. Situationally ethical
 E. An effective listener
 (a) B, C and E only (b) A and D only
 (c) A, B, C, D and E (d) A, B and C only
13. Which of the following is not a private university?
 (a) BITS Pilani
 (b) Techno India University
 (c) Guru Nanak Dev University
 (d) Jaipur National University

14. Below are given two sets – Erikson's Psycho-social development (Set-I) and Stage (Set-II). Match the two sets and indicate your answer by selecting the correct code:

Erikson's Psycho-social development	Stage
A. Intimacy vs. Isolation	I. Normally after retirement
B. Ego integrity vs. Despair	II. Much of adulthood
C. Generativity vs. Stagnation	III. During adolescence
D. Identity vs. Confusion	IV. During the 20s

Choose the correct answer from the options given below.

- (a) A - IV, B - I, C - II, D - III
 (b) A - IV, B - III, C - II, D - I
 (c) A - IV, B - II, C - I, D - III
 (d) A - IV, B - I, C - III, D - II
15. Which one of the following Sustainable Development Goals (SDGs) are related to human capital formation for the country?
 A. SDG-1 B. SDG-2
 C. SDG-3 D. SDG-4
 E. SDG-7
 (a) A, B and C only (b) A, C and D only
 (c) A, B, C and D only (d) A, B, C, D and E
16. The term 'open learning' represent approaches that do not focus on
 A. Opening access to education and training provision
 B. Freeing learners from the constraints of time and place
 C. Learning and evaluation without a specified curriculum
 D. Offering flexible learning opportunities to individuals and groups of learners
 E. Making students free from any educational loads
 Choose the correct answer from the options given below.
 (a) A, B and D only (b) C and E only
 (c) A, B and C only (d) A, B, C, D and E
17. Which of the following philosophies does not believe in the material world?
 (a) Rationality/Logic (b) Idealism
 (c) Pragmatism (d) Conservatism

18. What was the first commitment period of Kyoto Protocol of 1997?

- (a) 1997-2001 (b) 2001-2020
(c) 2008-2012 (d) 1997-2012

19. Choose the correct answer from the given options.

- A. At 5% rate of simple interest, a certain sum will be doubled in 20 years.
B. A sum becomes double in 10 years. The annual rate of simple interest is 20%.
C. ₹1000 will become ₹1331 in 3 years at a compound interest rate of 10% per annum.

Which of the above statements is/are CORRECT?

- (a) All statements are correct.
(b) All statements are incorrect.
(c) Only statements A and C are correct.
(d) Only statements B and C are correct.

20. Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R.

Assertion A: A good computer networking solution can be a barrier for your business.

Reason R: With computer networking, you can cut back on costs and allow for efficient use of resources.

In light of the above statements, choose the correct answer from the options given below.

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true and R is the correct explanation of A.
(c) A is correct but R is incorrect.
(d) A is incorrect but R is correct.

21.

Computer terms	Example
A. Operating system	I. Pentium
B. Application Software	II. Linux
C. Processor	III. Router
D. Networking Device	IV. Anti-virus

- (a) A - II, B - IV, C - I, D - III
(b) A - I, B - III, C - II, D - IV
(c) A - III, B - IV, C - I, D - II
(d) A - IV, B - I, C - III, D - II

22. Non-verbal communication does not make use of:

- A. Behaviour to generate meanings
B. Emotional meanings
C. A non-clear system of rules
D. Verbal finessé
E. Clarity in abstraction

Choose the correct answer from the options given below:

- (a) A, B and C only (b) D and E only
(c) A, B, C, D only (d) A, B, C, D and E

23. Propositions - Square of Opposition

A. If 'A' is False	I. 'A' and 'T' are False
B. If 'E' is True	II. 'E' is False; 'T' is True
C. If 'T' is False	III. 'E' and 'O' are True
D. If 'O' is True	IV. 'E' and 'T' are Undetermined

Choose the correct answer from the options given below.

- (a) A - I, B - IV, C - III, D - II
(b) A - IV, B - II, C - III, D - I
(c) A - IV, B - I, C - III, D - II
(d) A - IV, B - III, C - I, D - II

24. Given below are two statements:

Statement I: Tablet computers have touch screens.

Statement II: A tablet computer does not have a keyboard.

In light of the above statements, choose the correct answer from the options given below.

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true and R is the incorrect explanation of A.
(c) A is correct but R is incorrect.
(d) A is incorrect but R is correct.

25. Arrange the following optical storage devices in decreasing order of their storage capacity.

- A. DVD B. CD-ROM
C. Blue-Ray

Choose the correct answer from the options given below:

- (a) B, A, C (b) C, A, B
(c) B, C, A (d) A, C, B

26. 'Contagious' spreading of behaviours through imitation, is known as

- (a) Norm effect (b) Random effect
(c) Ripple effect (d) Scripted effect

27. Which of the following are the elements which should be ignored in the case study method?

- A. Negatively oriented
B. Appreciation oriented
C. Particularistic
D. Descriptive
E. Inductive

Choose the correct answer from the options given below:

- (a) C, D and E only (b) A and B only
(c) C and D only (d) A and C only

28. Given below are two statements:

Statement I: A 60 m long train passes a 90 m platform in 10 seconds. The speed of the train is 54 km/hour.

Statement II: If the ratio of the speeds of A and B is $a : b$, then the ratio of the time taken by them to cover the same distance is $a : b$.

In light of the above statements, choose the correct answer from the options given below:

- (a) Statement I is correct but statement II is incorrect.
(b) Statement II is correct but statement I is incorrect.
(c) Both statement I and statement II are incorrect.
(d) Both statements I and II are correct.
29. Which of the following statements about desktop and laptop computers are false?
- A. Most modern laptop computers have built-in webcams.
B. Desktop computers are not very portable.
C. All desktop computers have built-in touchpad.
D. Laptop computers are rarely supplied with a mouse.

Choose the correct answer from the options given below:

- (a) A, B and D (b) C only
(c) A and B only (d) A, C and D
30. What is the function of NIRF?
- (a) Providing a framework for ranking of higher educational institutions
(b) institutions
(c) Providing grants to colleges
(d) Providing framework for curriculum for universities
(e) All of the above
31. Below are given two sets – Scale (Set-I) and Characteristics (Set-II). Match the two sets and indicate your answer by selecting the correct code:

Scale	Characteristics
A. Arbitrary Scale	I. Attitude statements are decided by judges
B. Thurstone Scale	II. Summated ratings
C. Likert Scale	III. Consists of seven spaces between two bipolar adjectives
D. Semantic Differential	IV. Questions are selected on an a priori basis

Choose the correct code from the options given below.

- (a) A - I, B - II, C - III, D - I
(b) A - IV, B - II, C - I, D - III
(c) A - IV, B - III, C - I, D - II
(d) A - IV, B - I, C - II, D - III
32. If the wind speed increases from 4.0 m/s to 5.0 m/s, the power output from an ideal windmill will increase by a factor of about:
- (a) ~2 (b) ~4
(c) ~5 (d) ~16
33. In CBCS, Ability Enhancement Courses are of two kinds. Which of the following are NOT included in them:
- A. Ability Enhancement Compulsory Courses
B. Skill Enhancement Compulsory Courses
C. Ability Enhancement Elective Courses
D. Skill Enhancement Elective Courses
E. Skill Enhancement Courses
- Choose the correct answer from the options given below:
- (a) A and E only (b) A, B and C only
(c) B, C and D only (d) A and E only
34. A man weighs 75% of his own weight plus 39 lbs. What is the measure of his 60% weight approximately?
- (a) 150 lbs (b) 148 lbs
(c) 149 lbs (d) 156 lbs
35. The example 'sound is eternal because it is caused' represents which of the following Hetvabhasa?
- (a) Ashrayāsiddh (b) Kālātita
(c) Svarūpāsiddha (d) Viruddha
36. It is observed that India is being a point of attraction for students of many other countries. But only a few students come and study there. What are the reasons which are demotivating them to come to India?
- A. Lack of residential accommodation for foreign students
B. Difficulties in recognition of international qualification
C. Rigid admission process
D. Lack of enthusiasm among teachers
E. Lack of enthusiasm among students
- Choose the correct answer from the options given below:
- (a) A and B only (b) A, B and C only
(c) A, C and E only (d) A, B, C, D and E
37. Below are given two sets – Set-I and Set-II. Match the two sets and indicate your answer by selecting the correct code:

A. Sāmānyalaksana Pratyaksa	I. Intuitive perception of all objects-past, distant and future due to supernormal powers generated by meditation
B. JñanaLaksana Pratyaksa	II. When objects are not actually present to sense but are conveyed to it through a special medium
C. Yogaj Pratyaksa	III. Perception of an object which is in contact with senses through previous knowledge of itself
D. Alaukika Pratyaksa	IV. The perception of a whole class of objects through a generic property

Choose the correct code from the options given below.

- (a) A - IV, B - III, C - I, D - II
 (b) A - IV, B - III, C - II, D - I
 (c) A - IV, B - II, C - III, D - I
 (d) A - II, B - III, C - I, D - IV

38. **Statement I:** In all interactions, a message is sent and a message is received. Sometimes teachers believe they are sending one message, but their voices, body language, choice of words, and gestures may communicate a different message.

Statement II: To deal with cyberbullying, parents should be encouraged to keep computers in a separate room in the house where the child can use it privately.

In light of the above statements, choose the most appropriate answer from the options given below:

- (a) Statement I is correct but statement II is incorrect.
 (b) Statement II is correct but statement I is incorrect.
 (c) Both statement I and statement II are incorrect.
 (d) Both statements I and II are correct.
39. Media kits are used in:
- (a) A package of information, assembled by a company, to provide basic information about itself to reporters.

(b) Package of media files.

(c) Information about a company which is made digitally by the income tax department.

(d) A digitally kept folder which includes all kinds of media files of a particular field.

40. Given below are two statements:

Statement I: Qualitative research is impressionistic and objective.

Statement II: Quantitative research has a lower level of possibility of generalising the findings.

In light of the above statements, choose the correct answer from the options given below:

- (a) Statement I is correct but statement II is incorrect.
 (b) Statement II is correct but statement I is incorrect.
 (c) Both statement I and statement II are incorrect.
 (d) Both statements I and II are correct.
41. Which among the following are the components of decision traps to illustrate what needs to be a possible evaluatory framework to monitor the learning process?

- A. Overconfidence B. Coaching
 C. Frame blindness D. Taking shortcuts
 E. Persistent misconception

Choose the correct answer from the options given below:

- (a) A and B only (b) A, C and D only
 (c) A, B and C only (d) A, C and E only
42. Which of the following reliability techniques are used in qualitative research?
- A. Diachronic reliability
 B. Quixotic reliability
 C. Synchronic reliability
 D. Holsti's constant
 E. Chronbach's alpha

Choose the correct answer from the options given below:

- (a) A, B and C only (b) B, C and D only
 (c) A, B, C and E only (d) D and E only
43. From the options given below, pick the CORRECT sequence in the context of constituent parts of inference:
- (a) Pratijña, Udaharana, Hetu, Upanaya, Nigamana
 (b) Pratijña, Hetu, Upanaya, Nigamana, Udaharana,
 (c) Pratijña, Hetu, Nigamana, Udaharana, Upanaya
 (d) Pratijña, Hetu, Udaharana, Upanaya, Nigamana

44. What number should replace the question mark (?)?

5, 12, 23, 50, 14, ?

- (a) 415 (b) 430
(c) 488 (d) 450

45. What is the name of the score a student would get if the measurements were completely accurate and error-free?

- (a) I-score (b) Neutral score
(c) True score (d) Z-score

Direction for questions 46 to 50:

Read the given passage and answer the questions that follow:

A global light pollution map developed by a group of researchers has ranked New Delhi, Kolkata and Bengaluru as the three cities with the highest light pollution in India. It should serve to alert us to the looming problem of light pollution about which we are not only doing so little to prevent but are also unaware about. Light pollution refers to the harmful impact of artificial outdoor lighting. While artificial outdoor lighting is needed in the form of street lights as it increases safety on roads and enables us to study and work in the dark, its use for floodlighting, illumination, advertising, etc. has grown manifold in recent decades, resulting in the problem of light pollution. Studies show that the brightness from outdoor lights has risen steadily across India over a 20 year period, with New Delhi, Telangana, Maharashtra, Karnataka and Uttar Pradesh showing a “very high light intensity pollution” rise between 1993 and 2013.

The use of excessive artificial outdoor lighting has several harmful implications not just for human health but for the wellbeing of animals, birds, insects and our environment. Use of artificial lights at night gives us more working and studying hours but it results in the problem of ‘loss of night’. We find it difficult to fall asleep when the glow of streets enters our homes. It impacts our sleep-wake rhythm, which

could have serious implications for our moods and health. Illumination of gardens impacts animals and insects too. It is nocturnal insects and birds that suffer the most due to light pollution. It makes them disoriented, impacts their reproduction and thus, their populations.

46. Excessive hours of artificial light negatively impact our

- A. Work schedule B. Sleep cycle
C. Study hours D. Moods and health

Choose the correct answer from the options given below:

- (a) B and D only (b) A, B and C only
(c) A and C only (d) A, C and D only

47. Light pollution intensity refers to:

- (a) Increased outdoor brightness during night time.
(b) Manifold hike in use of electricity in rural areas.
(c) More and more use of electricity in urban areas.
(d) Use of artificial light for road safety.

48. One of the major pollutants is in the form of

- (a) Home lights
(b) Illuminated advertising
(c) Indoor lights
(d) Street lights

49. The loss of night, as mentioned in the passage, will lead to

- (a) Increase in education.
(b) More human productivity.
(c) The altered activities of nocturnal creatures
(d) The well-being of human population

50. The light pollution map is related to adverse effects of

- (a) Outdoor artificial light
(b) Rural electricity projects
(c) Sunlight
(d) Urban electricity projects

□□□

Answer Key

1. (a)	2. (b)	3. (a)	4. (c)	5. (b)	6. (a)	7. (b)	8. (b)	9. (b)	10. (c)
11. (c)	12. (b)	13. (c)	14. (a)	15. (c)	16. (b)	17. (b)	18. (c)	19. (a)	20. (d)
21. (a)	22. (b)	23. (c)	24. (a)	25. (b)	26. (c)	27. (b)	28. (a)	29. (b)	30. (a)
31. (d)	32. (a)	33. (c)	34. (b)	35. (d)	36. (a)	37. (a)	38. (a)	39. (a)	40. (b)
41. (b)	42. (d)	43. (d)	44. (c)	45. (c)	46. (a)	47. (a)	48. (b)	49. (c)	50. (a)

ANSWERS WITH EXPLANATIONS

1. Option (a) is correct.

Total number of employees:

In organization D = 15% of 35000 = 5,250

In organization C = 31% of 35000 = 10,850

Percentage of employees of C of D:

$$5250 \times 100/10,850 = 48.39\%$$

2. Option (b) is correct.

Number of employees in C = 31% of 35000 =

10,580 employees in organization C = 10,850

Ratio of employees in organization C to organization A 10,850:6300 = 217:126

3. Option (a) is correct.

Number of Female employees in organization

D = $35000 \times 15/100 = 5,250$

$$5,250 \times 3/5 = 3,150$$

Number of male employees in organization E

= $35,000 \times 31\% = 10,850$

$$10,850 \times 1/4 = 1,225$$

$$\text{Sum} = 3,150 + 1,225 = 4,375$$

4. Option (c) is correct.

Female in all organization

$$A = 6300 \times 7/10 = 4,410$$

$$B = 7700 \times 9/20 = 3,465$$

$$C = 10,850 \times 2/5 = 4,340$$

$$D = 5,250 \times 3/5 = 3,150$$

$$E = 4,900 \times 3/4 = 3,675$$

$$\text{Total} = 4410 + 3465 + 4340 + 3150 + 3675 = 19,040$$

5. Option (b) is correct.

Number of male employees in organization D

$$= 5,250 \times 2/5 = 2100$$

Number of female employees in organization B

$$= 7,700 \times 9/20 = 3465$$

$$\text{Difference between them} = 3,465 - 2100 = 1,365$$

6. Option (a) is correct.

Feedforward is a term used for the information provided before sending the primary message.

Brief introduction of the message is known

as introduction or abstract. To do something before sending the message is known as pre-message. Sign to convey something is known as an indicator.

7. Option (b) is correct.

Major term is the subject of premises, middle term is the reason for conclusion and minor term is the subject of conclusion. Minor and major term should be connected by the middle term to find the right conclusion but in the given statement's conclusion if driven by connecting the major term in the place of the middle term. This is called an error named Illicit Major.

In other words, conclusions should be driven with the middle term *i.e.*, mammals but here major term (dog) is used to conclude. This is called illicit major fallacy.

8. Option (b) is correct.

Let the salary of Ravi = 100

After increasing $100 + 20 = 120$

20% increase in salary implies 20% increase in tax liability. But here tax is 10% higher on increased salary.

$$\text{Hence, Tax liability} = 20 + 10\% \text{ of } 20 = 20 + 2 = 22\%$$

9. Option (b) is correct.

A. Cholera	III. Ingestion of polluted water
B. Trachoma	I. Lack of water to maintain cleanliness
C. Schistosomiasis	II. Involves water contact but not ingestion
D. Dengue	IV. Requires host

10. Option (c) is correct.

From the total energy consumption, Portion of Non-renewable energy used in India is 63%.

Major energy source which is consumed in India is Coal energy with a portion of 56.09% of total energy consumption.

11. Option (c) is correct.

People use non-verbal cues more than verbal cues. Body language, gestures and many more things form non-verbal cues. Non-verbal cues are more believable than verbal cues because words can be manipulated. Hence, both the statements are false.

12. Option (b) is correct.

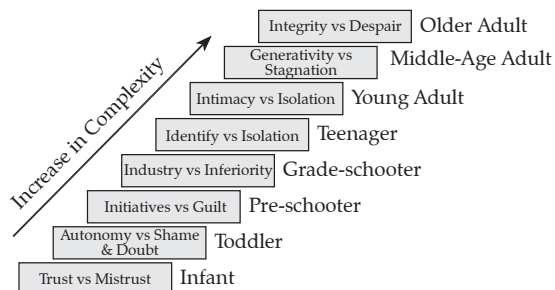
A competent communicator should be culturally neutral. Being culturally sensitive will bring biases and other barriers. He/She should be totally ethical every time, not situationally ethical.

13. Option (c) is correct.

BITS Pilani, Techno India University and Jaipur National University are private universities whereas Guru Nanak Dev University is a state university of Punjab.

14. Option (a) is correct.

Stages of Psychsocial Development



15. Option (c) is correct.

SDG-1: No poverty

SDG-2: Zero hunger

SDG-3: Good health and well being

SDG-4: Quality education

To convert humans into a capital, a country has to focus on education, health and training facilities. SDGs 1 to 4 are related to the factors which are related to the human capital formation.

16. Option (b) is correct.

Open learning refers to a learning method which focuses on the following:

A. Open access to learning and training provisions.

B. Making learners independent of time and place of learning.

C. Learning and evaluation with a specified curriculum.

D. Offering flexible learning opportunities to individuals and groups of learners.

17. Option (b) is correct.

Idealism is a philosophy which does not believe in the material world. In Rationalism, learning with the help of logic is the focus point. Pragmatism philosophy believes in solving problems in a practical way not only by theory or ideas. Conservatism promotes cultural and traditional beliefs and does not focus on changes.

18. Option (c) is correct.

- The Kyoto Protocol was signed in 1998-99.
- Its first commitment period was over on 31st December, 2012.
- Its second commitment period was over on 31st December, 2020.
- The Kyoto protocol was an extension of the 1992 UNFCCC.
- The aim of this protocol is to reduce greenhouse gasses.
- 5 main elements of the Kyoto protocol are: 1. Carbon dioxide, 2. Methane, 3. Nitrous Oxide, 4. Hydrofluorocarbons, 5. Sulphur Hexafluoride.

19. Option (a) is correct.

For statement 1: Let the principal amount be 100.

Simple interest rate = 5%

Time = 20 years

$$SI = P \times T \times R/100$$

$$100 \times 20 \times 5/100$$

Simple interest in 20 years = 100

Total amount = 100 + 100 = 200 (double of invested amount)

Hence, statement 1 is correct.

For statement 2: Let the principal amount be 100.

Rate = 20%

Time = 10 years

$$SI = P \times T \times R/100$$

$$100 \times 10 \times 20/100$$

SI = 200 (Double of the principal amount).

For statement 3:

$$P = 1000$$

$$\text{Amount} = 1331$$

$$\text{Rate} = 10\%$$

$$\text{Time} = 3 \text{ years.}$$

Formula of compound interest can be tough to calculate. This can be calculated by simple interest.

$$10\% \text{ of } 1000 = 100$$

$$\text{Amount at the end of 1st year} = 1100$$

$$\text{For 2nd year} = 1100 + 110 = 1210$$

$$\text{For 3rd year } 1210 + 121 = 1331$$

By compound interest for 3 years at the rate of 10%, the amount will be 1331. Hence, statement 3 is also correct.

20. Option (d) is correct.

A good computer network solution is not a barrier for any business because it makes every aspect work efficiently.

Hence, the assertion is incorrect.

21. Option (a) is correct.

Application software: Anti-virus

Processor: Pentium

Networking Device: Router

22. Option (b) is correct.

Non-Verbal communication is useful for the following:

- To get an understanding of the emotional meaning of the sender.
- For knowing behaviour to generate meaning.
- For better understanding of the message.
- It is a non-clear system of rules

Hence, only D and E are inappropriate here.

23. Option (c) is correct.

The AEIO syllogism can be defined as follows:

A type: statements which are universally positive. Example- All cats are red, Most of the mangoes are yellow etc.

E type: universal negative statements. Example- no man is an adult, most of the mangoes are not green etc.

I type: Particular positive statements. Example- Some M are P.

O Type: Particular negative statements. Example- some M are not P.

Relation among these statements can be designed as follows:

If 'A' is False	IV. 'E' and 'T' are Undetermined
If 'E' is True	I. 'A' and 'T' are False
If 'T' is False	III. 'E' and 'O' are True
If 'O' is True	II. 'E' is False; 'T' is True

24. Option (a) is correct.

Tablet computers have touch screens but do not have keyboards separately. Not having other hardware devices makes tables easily bearable.

Hence, both statements are correct but R is not elaborating or explaining A.

25. Option (b) is correct.

Blue ray > CD-ROM > DVD

26. Option (c) is correct.

Imitation is to remind something by repetition of reading like kids do at primary or elementary level. This results in the Ripple effect.

Random effect refers to the findings of uncorrelated variables. For example, while reading about the Taj Mahal, a student found some interesting variables or facts of the Mughal Empire.

Scripted effect is removing or reducing the duplications which are not necessary.

Norm effect is also called conditioning. Which means to correlate two situations.

27. Option (b) is correct.

A researcher who is involved in a case study method of research should not be negatively oriented; he/she should always have a positive attitude which prevents biasness. He/She should not be only appreciation oriented only. This also brings biases if we only appreciate all the things.

28. Option (a) is correct.

$$\text{Speed} = 54 \text{ km/h}$$

$$\text{Time} = 10 \text{ sec}$$

$$\text{Distance to be covered} = 60 + 90 = 150 \text{ m}$$

$$\text{Speed} = \text{Distance}/\text{time}$$

$$\text{Speed} = 150/10$$

$$\text{Speed} = 15 \text{ m/s}$$

To convert m/s in km/h, it will be multiplied by 3600/1000

$$15 \times 3600/1000 = 54 \text{ km/h}$$

For statement 2, it is not compulsory that the ratio of speeds of two trains will be equal to the ratio of time taken by them to cover the same distance. Hence, the statement is wrong.

29. **Option (b) is correct.**

All the given statements are correct regarding desktop computers except statement C because all desktop computers do not have inbuilt touchpads in them.

30. **Option (a) is correct.**

Providing a framework for ranking of higher educational institutions.

The major function of NIRF or National Institutional Ranking Framework is to provide a framework or standards for ranking the institutions providing higher education.

31. **Option (d) is correct.**

A. Arbitrary Scale	IV. Questions are selected on an a priori basis
B. Thurstone Scale	I. Attitude statements are decided by judges
C. Likert Scale	II. Summated ratings
D. Semantic Differential	III. Consists of seven spaces between two bipolar adjectives

32. **Option (a) is correct.**

If the speed of wind increases from 4.0 m/s to 5.0 m/s, the power output from an ideal windmill will increase by a factor of ~2.

33. **Option (c) is correct.**

In CBCS, two courses included for enhancement of ability is:

1. Ability Enhancement Compulsory Courses
2. Skill Enhancement Courses

34. **Option (b) is correct.**

Weight of the man = 75% of his weight + 39

Total weight = 100%

$39 = 100\% - 75\%$

$39 = 25\%$

Total weight = $39/25 \times 100$

Total weight = 100% = 156 lbs

60% of his weight = $156 \times 60/100$
= 148 lbs

35. **Option (d) is correct.**

Viruddha fallacy is a fallacy where two contradictory things are present in one sentence.

It is a universal truth that anything that is caused or generated comes to an end at a

point of time but in the given sentence sound is eternal because it is caused by contradictory qualities.

36. **Option (a) is correct.**

The reason which are demotivating foreign students are:

- A. Lack of residential accommodation for foreign students
- B. Difficulties in recognition of international qualifications

37. **Option (a) is correct.**

A. Samanyalaksana Pratyaksa	IV. The perception of a whole class of objects through a generic property
B. JñanaLaksana Pratyaksa	III. Perception of an object which is in contact with sense through previous knowledge of itself
C. YogajPratyaksa	I. Intuitive perception of all objects- past, distant and future due to supernormal powers generated by meditation
D. AlaukikaPratyaksa	II. When objects are not actually present to sense but are conveyed to it through a special medium

38. **Option (a) is correct.**

In every interaction a message is sent and a message is received which is called a two-way communication process. Sender's body language, gesture and many non-verbal communication convey many other messages too which are understood by the receiver. Hence, statement I is correct.

For security purposes, parents should be encouraged to keep computers in a place where everyone can have access to it so that the children don't fall victims of cyber-bullying. Hence, statement II is incorrect.

39. Option (a) is correct.

Media kits refers to a package of information, assembled by a company to provide basic information about itself to the reporters.

40. Option (b) is correct.

Qualitative research is not objective but subjective as it consists of various aspects which are totally based on perceptions and assumptions of the researcher. Hence, statement I is incorrect.

Qualitative research has lower chances of being generalized because it consists of subjectivity and depends on beliefs of the researcher. Hence, statement I is correct.

41. Option (b) is correct.

Following are the components which needs to be possibly included in the framework to evaluate the learning process:

- (a) Confidence level
- (b) Frame blindness
- (c) Reliability of the framework
- (d) Valid results measurement capacity of the framework
- (e) Taking shortcuts

42. Option (d) is correct.

Following are the techniques which are used in qualitative research:

- (a) Holsti's constant
- (b) Chronbach's alpha

43. Option (d) is correct.

Pratijña, Hetu, Udaharana, Upanaya, Nigamana

Following is the process of inference (Anumana)
This process can be learnt by mnemonic PHUUN.

Pratijna (the subject of inference): The hill has fire

Hetu (the reason): Because it has smoke

Udaharana (the example): Kitchen has smoke because it has fire.

Upnayan (comparison): And kitchen has smoke because of fire that is as hill has fire because of smoke.

Nigmana (the conclusion): Hill has fire.

44. Option (c) is correct.

5, 12, 23, 50, 141, ?

$$12 - 5 = 7$$

$$23 - 12 = 11$$

$$50 - 23 = 27$$

$$141 - 50 = 91$$

$$11 - 7 = 4$$

$$27 - 11 = 16$$

$$91 - 27 = 64$$

(Numbers are in multiple of 4)

$$(4 \times 1 = 4, 4 \times 4 = 16, 4 \times 16 = 64)$$

Next term can be get as follows:-

$$64 \times 4 = 256$$

$$256 + 91 = 347$$

$$347 + 141 = 488$$

45. Option (c) is correct.

If the measurements are completely accurate and error free, this type of score measurement scale is called true score.

46. Option (a) is correct.

According to the passage, excessive hours of artificial light negatively affect our sleep cycle, moods and health.

47. Option (a) is correct.

According to the passage, excess or increased outdoor light during night time which has no use is called light pollution intensity.

48. Option (b) is correct.

Illuminated advertising is one of the major pollutants as per the passage suggests.

49. Option (c) is correct.

The loss of night, as mentioned in the passage, leads to the altered activities of the nocturnal creatures.

50. Option (a) is correct.

As mentioned in the passage, the light pollution map is related to the adverse effects of outdoor artificial light.