

## ANSWERS

1. Ans. B

Following are the nature and objectives of teaching:

Teaching is a social act which learning is personal act – This statement means teaching is a social activity where teacher imparts knowledge or modify the behaviour of the students which helps in the socialization of students.

Teaching implies learning whereas learning doesn't imply teaching - Teaching involves learning because learning is the objective of every teaching whereas the objective of learning is to modify the behaviour but not involves teaching.

Teaching is an interaction and is triadic in nature whereas learning is an active engagement in a subject domain – teaching is an interaction between teacher and student while it is a triadic in nature because teaching involves three elements' i.e., teacher, student and content.

2. Ans. A

Following are the characteristics of learner which facilitates teaching-learning system to become effective are:

- a) Prior or previous experience of the learner facilitates the teaching learning process a lot because without students' good previous knowledge or learning a good teaching learning process does not takes place.
- b) Aptitude of a learner: Student talent, behaviour or aptitude facilitates the teaching learning process effectively.
- c) Stage of development of a learner also affects the teaching learning process if the learners is in preschool level. His/her physical and intellectual development takes place very rapidly in comparison to other stage of development.

3. Ans. C

All teaching implies learning this statement is absolutely correct because all teachings are the consequences of learning and it is the learning that makes the teaching effective. No teaching takes place without the learning.

Learning to be useful must be derived from teaching this statement is incorrect because learning is the main step of teaching without learning teaching cannot exist. So, it is very wrong to say that learning to be useful must be derived from teaching it is only the learning from which the teaching is derived.

4. Ans. D

A criterion referenced test is designed to measure students' performance against predetermined set or criteria and the criterion fixed before beginning of test.

5. Ans. C

The key of behaviour in effective teaching process is variety of instruction a teacher uses during the course of his/her teaching for teaching a particular lesson. Effectivity of instructional variety depends upon the number of ways a teacher uses in his/her teaching. if a teacher uses same method of teaching for a very long time than his/her teaching doesn't takes place effectively or it shows the lower effectiveness of a teacher. It is the ability of teacher to shift away from one method to another during the Course of teaching a particular lesson.

6. Ans. C

Action research is a type of research that was started to solve an immediate problem or prevailing problems whereas the remaining types of research are for other purposes such as:

- Fundamental research, aim to improve scientific theories for improved understanding.
- Experimental research is a study that strictly adheres to a scientific research design.
- Applied Research aims to apply the theories into practice.

7. Ans. C

Ex post facto research method examines how an independent variable, present prior to the study in the participants, affects a dependent variable.

For e.g. the dependent variable is anxiety proneness of children and independent variable is method of feeding. This method is suitable. On the other hand, the other methods are not suitable for this research.

- Case study method involves deep and detailed examination of the case as well as its related conditions.
- Survey is used for collecting data from a relevant group of respondents.
- Experimental research is a study that incorporates a scientific research design.

8. Ans. C

A wider spectrum of ideas and issues may be made possible in a conference as, it is a meeting, lasting a few days, which is organized on a particular subject or to bring together people who have a common interest.

On the other hand, a research article tries to give report on the study of empirical research conducted by the authors.

Workshop is a meeting at which a group of people engage in intensive discussion and activity on a particular subject or project.

9. Ans. D

The List of tables and figures, Table of contents, Conclusions of the study are the main components of thesis whereas the bibliography and appendices are the supplementary pages.

- Appendices provides the supplementary or additional information to the main thesis and always appear after the bibliography page.
- Bibliography lists down the sources of references used for preparing the thesis.

10. Ans. D

Research ethics is specifically related to the analysis of ethical issues that are raised when people are involved as participants in research.

The reporting of research findings is susceptible to the issue of research ethics, as there cannot be any distortion with the findings.

Whereas the other three options are not susceptible to the issue of research ethics because these are not influenced by research ethics.

11. Ans. A

The given paragraph mentions the first three points as the factors of vulnerability of poor people to climate change: "Vulnerability to climate change is not just a function of **geography or dependence on natural resources**; it also has social, **economic** and political

dimensions which influence how climate change affects different groups. Poor people **rarely have insurance** to cover loss of property due to natural calamities..."

So, besides geography and natural resources, lack of money plays a major role increasing the vulnerability of the poor. Thus, option A is the correct answer.

12. Ans. A

According to the given passage, "Adaptation is a process through which societies make themselves better able to **cope with an uncertain future**. Adapting to climate change entails taking the right measures to **reduce the negative effects of climate change (or exploit the positive ones)** by making **the appropriate adjustments and changes**."

Hence, all the alternatives are correct with reference to the question asked and option A is the correct answer.

13. Ans. B

According to the given passage, "Because of the speed at which climate change is happening due to global temperature rise, it is urgent that the vulnerability of **developing countries** to climate change is reduced and their **capacity to adapt is increased and national adaptation plans are implemented**". Thus, option B is the correct answer.

14. Ans. C

According to the given passage, "Communities must build their resilience, including adopting appropriate technologies while making the most of traditional knowledge... Local coping strategies and knowledge need to be used in **synergy with government and local interventions**." Thus, the author suggests that traditional knowledge should be used through cooperation between government and local interventions. Thus, option C is the correct answer.

15. Ans. C

The given passage begins by stating how Climate Change poses threat to sustainable development and how the poor people are the worst affected in the process. The passage gives a resolution to the problem by suggesting that "It is vital that these communities are helped to adapt to the changing dynamics of

nature". Also, this change must not only occur at the individual or community level, but at the national and international level.

Hence, the passages focus on the concept of adaptation to climate change and option C is the correct answer.

16. Ans. C

- The interaction between teacher and students should create a sense of development between both the parties. Both of them should gain from the interaction.
- The interaction should neither create any difference between them nor any confusion.
- Even distortion of information should not take place between their interaction.

17. Ans. A

- Spatial audio reproduction refers to the process of recreating the impression of a real or fiction sound environment
- This activity increases the respect for teacher and Interest in technology - orientation instead of reducing it. This activity also raises the level of motivation of the students.
- This only reduces the cognitive load of students in understanding the concept. They don't have to put in much extra effort cognitively to understand.

18. Ans. B

The classroom communication should be empathetic as it means showing an ability to understand and share the feelings of another. The other options are false as:

- Contrived means created or arranged in a way that seems artificial and unrealistic.
- Abstract means existing in thought or as an idea but not having a physical or concrete existence.
- Non-descriptive means lacking description.

19. Ans. D

A good communicator mostly begins his/her presentation with an ice breaker.

- Ice breaker, can be any game or an activity which is used to introduce people to each other and to make them feel relaxed and comfortable.
- It is an effective way to begin a presentation or training session.

- Beginning with a complex question, repetitive phrase or non-sequitur is not a good idea.

20. Ans. A

The probability of message reception can be enhanced by stating a view-point or an opinion about the concerned subject in the classroom.

The ignorance, information load, high decibel audio tools do not make sure that the message has been received in an intended manner. Therefore, the correct answer is A.

21. Ans. A

1	6	15	28	45	<b>66</b>
	5	9	13	17	<b>21</b>

Difference of difference is 4.

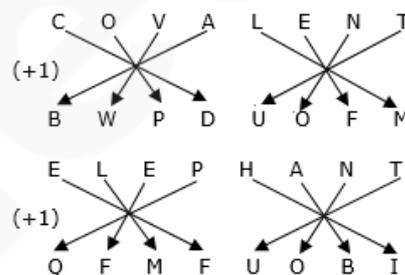
22. Ans. B

1<sup>st</sup> letter- A +3 D +4 H +5 M +6 S

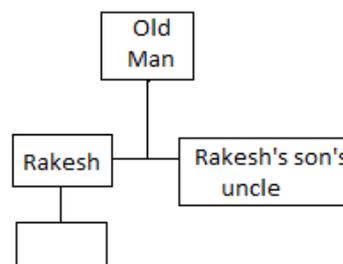
2<sup>nd</sup> letter- B +5 G +6 M +7 I +8 B

3<sup>rd</sup> Letter- D +7 K +8 S +9 B +10 L

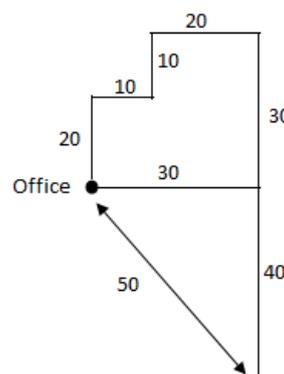
23. Ans. C



24. Ans. C



25. Ans. A



26. Ans. C

The above two statements can be considered as argument because:

- An argument is a series of statements, called the premises, intended to determine the degree of truth of another statement, the conclusion.
- Here the premise is: no one was there when life first appeared on earth. And the conclusion is: Any assertion about life's origin, thus, should be treated as a theory. The conclusion supports the premises.
- On the other hand, these statements neither explain any history nor describing any series of events or a story, So the option A and Option C is incorrect.
- Conjecture refers to conclusion or proposition based on incomplete information, for which no proof has been found. Therefore, option D is also incorrect.

27. Ans. D

The rule of square of opposition (AEIO Rule) implies here:

**Four types of propositions, are, say for instance.**

**A:** All S are P

**E:** No S are P

**I:** Some S are P.

**O:** Some S are not P.

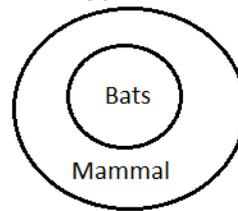
- The two statements are related in such a way that they can both be true but they cannot both be false are said to be sub contrary.
- According to the rule, I and O propositions are **sub contrary**.
- Therefore, Statement B and Statement C are sub contrary.

28. Ans. D

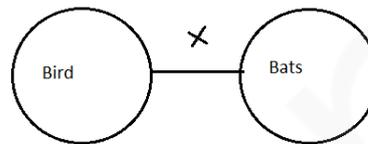
- A deductive argument is said to be invalid if the conclusion does not logically follow from the premises the conclusion can be false even when the premises are true.
- Note that a valid argument does not necessarily mean that the conclusion is true; if a premise is false, the conclusion can be false even if the argument is valid.

29. Ans. C

From (i)



From (ii)



Among the four conclusions, only iii seem to be true because:

- From the above figures, no relation can be drawn between birds and mammals. Therefore, option 1 and 2 are false.
- Option 4 is also false as All mammals are bats is false.
- Option 3 is true as No bats are birds can be easily concluded.

30. Ans. A

This argument is analogical in nature. The analogy here is-Melting Ice cubes is compared with the melting sea -ice and glass of water is compared with ocean. So, there is similarity between the objects. So, the correct answer is A.

31. Ans. B

Decades	Decadal growth Population
1961-1971	548.15-439.23=108.92
1971-1981	683.32- 548.15=135.17
1981-1991	846.42-683.32=163.1
<b>1991-2001</b>	<b>1028.73-846.42=182.31</b>
2001-2011	1210.19-1028.73=181.46

So, option B is correct.

32. Ans. D

	Car decadal growth%
In 1971	(6.82-3.1)/3.1×100=120%
In 1981	(11.6-6.82) × 100/6.82= 70%
In 1991	(29.54-11.6) × 100/11.6= 154%
In 2001	(70.58-29.54) × 100/29.54= 139%
<b>In 2011</b>	<b>(191.23-70.58) × 100/70.58= 171%</b>

	Two wheelers decadal growth%
In 1971	(5.76-0.88)/0.88×100= 554%
In 1981	(26.18-5.76)/5.76×100= 354%
In 1991	(142-26.18)/26.18×100=442%
In 2001	(385.56-142)/142×100=171%
<b>In 2011</b>	<b>(1018.65-385.56)/385.56×100=164%</b>

So, option D is correct.

33. Ans. A

% growth every year

In 1961-1971 =  $(6.82 - 3.1) \times 100 / 3.1 = 120\%$

In 1971-1981 =  $(11.6 - 6.82) \times 100 / 6.82 = 70\%$

In 1981-1991 =  $(29.54 - 11.6) \times 100 / 11.6 = 154\%$

In 1991-2001 =  $(70.58 - 29.54) \times 100 / 29.54 = 139\%$

In 2001-2011 =  $(191.23 - 70.58) \times 100 / 70.58 = 171\%$

Average % growth every year =  $(120 + 70 + 154 + 139 + 171) / 5 = 130.8 \sim 131\%$ .

So, option A is correct.

34. Ans. A

Total passenger vehicles =  $(70.58 + 6.34) / 549.91 \times 100 = 13.98 \sim 14\%$

35. Ans. A

Total Two wheelers in 2011 = 1018.65 lakh

Total population in 2011 = 1210.19 million

Per capita ownership =  $1018.65 \times 10^5 / (1210.19 \times 10^6) = 0.084$

So, option A is correct.

36. Ans. D

URL is the name for a webpage address.

URL stands for Uniform Resource Locator.

37. Ans. B

The data storage is the capacity to store the data on the different fields.

The correct sequence of the data storage is:

Bits, bytes, fields, records, files and databases.

Bit is the smallest unit of storage.

1 Byte = 8 bits.

A field is a unit of data consisting of one or more characters.

A record is the collection of the fields.

Similarly, a file consists of many numbers of records.

A database is the collection of files.

38. Ans. D

.com stands for commercial use. Most of the businesses uses .com extension. The domain that is used by the company is .com.

39. Ans. C

USB stands for Universal Serial Bus. USB is an external device which is connected to a computer port.

40. Ans. D

1 Gigabytes is equal to one billion characters.

1GB =  $10^9$  characters.

41. Ans. A

Suspended fine particles is the major cause of respiratory disease.

42. Ans. B

In urban areas, smog episodes occur very frequently in winters is true. As this smog occurs due to many reasons like pollution, burning of biomass/plastic, when sunlight and heat react with the different gases.

In winters, a lot of biomass is burnt by people for heating purposes or to keep themselves warm is also true. But it is not the only reason for occurrence of smog in winters.

So, both the assertion and reason are true but reason is not the correct explanation of the assertion. So, option B is correct.

43. Ans. C

Occurrence of Natural hazards are affected by the changes in the land use, drainage and construction as there is no proper flow of water due to unregular construction and climate change.

44. Ans. A

Chloro fluoro carbons is a compound which have the traces of carbon, chlorine and fluorine. CFC is a pollutant that is not produced both naturally and as a result of industrial activity.

45. Ans. D

Hydrogen ( $H_2$ ) is the fuel of energy that is the most environment friendly. Many researchers are working on hydrogen operated vehicles. Hydrogen might be used as an alternative fuel for different vehicles.

46. Ans. C

Higher Education in India has certain goals to achieve:

- Access – Education is the right to every individual. So, higher education institutes have the duty to ensure education access to every learner.
- Equity, Quality and Excellence – The first and the foremost motive of every higher education institute is to ensure quality and proper infrastructure to the students.
- Relevance and value-based education – The higher education institutes must provide value through education.

47. Ans. A

Miranda House, Delhi has been ranked the best college in the country (2017) as per the National Institutional Ranking Framework (NIRF).

48. Ans. A

Jawaharlal Nehru University (JNU Delhi) has received the Visitor's Award for the best Central University in India in Feb. 2017.

49. Ans. B

Governor of a State can be removed by the President without Parliament's resolution. The President can remove the

Governor of a State on recommendation of Prime Minister and Council of Ministers but must have a valid reason for the removal of the Governor of a State.

50. Ans. D

Misuse of official position is a crime and comes under the ambit of the 'corruption'.

Deviation or not following rules, laws and norms, non-action when action is required and harm to the common people or public comes under the umbrella of corruption.