

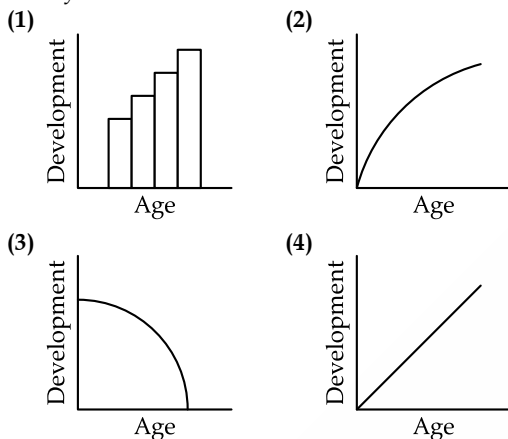
Time: 2 hours 30 mins.

Total Marks: 150

## Child Development and Pedagogy

**Directions:** Answer the following questions (Q. Nos. 1 to 30) by selecting the correct/most appropriate options.

1. Which of the following figure correctly represents the development according to Piaget's development theory?



2. A teacher found that a student is facing difficulty in drawing a square. He/She assumes that this student would also find it difficult to draw a diamond. He/She applies which of the following principles to arrive at his/her assumption?
- Development tends to follow an orderly sequence.
  - Development is saltatory.
  - Development is gradual.
  - Development is different for different people.
3. Which one of the following statements is TRUE regarding the role of heredity and environment in human development?
- The role of environment is almost fixed, whereas the impact of heredity can be altered.
  - The theories based on the 'behaviourism' are largely based on the role of 'nature' in human development.
  - The relative effects of heredity and environment vary in different areas of development.
  - The policy of compensatory discrimination of the government of India is based on the role of 'nature' in human development.
4. In the context of socialization, schools often have a hidden curriculum which consists of:
- forcible learning, thinking and behaving in particular ways by imitating peers and teachers
  - the informal cues about social roles presented in school through interaction and materials
  - negotiating and resisting socialization of students through their families
  - teaching and assessment of values and attitudes

5. Which of the following implications CANNOT be derived from Piaget's theory of cognitive development?
- Sensitivity to children's readiness to learn.
  - Acceptance of individual differences.
  - Discovery learning.
  - Need of verbal teaching.
6. Which of the following is a characteristic of Kohlberg's stages of moral development?
- A variable sequence of stages.
  - Stages are isolated responses and not general pattern.
  - Universal sequences of stages across all cultures.
  - Stages proceed in a non-hierarchical manner.
7. Teachers and students draw on one another's expertise while working on complex projects related to real-world problems in \_\_\_\_\_ classroom.
- traditional
  - constructivist
  - teacher-centric
  - social-constructivist
8. In the context of progressive education, the term 'equal educational opportunity' implies that all students should:
- receive equal education irrespective of their caste, creed, colour, region and religion
  - be allowed to prove their capability after receiving an equal education
  - be provided an education by using the same methods and materials without any distinction
  - be provided an education which is most appropriate to them and their future life at work
9. In the context of language development, which of the following areas was underestimated by Piaget?
- Heredity
  - Social interaction
  - Egocentric speech
  - Active construction by the child
10. An eleven-year-old child's score on Stanford Binet Intelligence scale is 130. By assuming  $\mu = 100$  and  $\sigma = 15$  in a normal probability curve, calculate the percentage of 11-year-old children this child has scored better than.
- 98%
  - 88%
  - 78%
  - 80%
11. Which of the following observations supports Howard Gardner's theory of multiple intelligences?
- Damage to one part of the brain affects only a particular ability sparing others.
  - Intelligence is an interaction of analytical, creative and practical intelligences.
  - Different intelligences are hierarchical in nature.
  - Teachers should follow one specific theory of educational innovation at the time of designing instruction.

12. Which one of the following statements is true about ability and ability grouping?
- (1) Students learn better in homogeneous groups.
  - (2) For smooth and effective teaching, class should be homogeneous.
  - (3) Children are intolerant and do not accept differences.
  - (4) Teachers may use multilevel teaching to cater to different ability groups.
13. Which one of the following statements is true?
- (1) The formative assessment can sometimes be summative assessment and vice versa.
  - (2) The summative assessment implies that assessment is a continuous and integral part of learning.
  - (3) The major objective of the formative assessment is to grade the achievement of students.
  - (4) The formative assessment summarizes the development of learners during a time interval.
14. A teacher asks his/her students to draw a concept map to reflect their comprehension of a topic. He/She is:
- (1) jogging the memory of the students
  - (2) conducting formative assessment
  - (3) testing the ability of the students to summarize the main points
  - (4) trying to develop rubrics to evaluate the achievement of the students
15. Which one of the following represents the domain 'evaluating' in the Bloom's revised taxonomy?
- (1) Creating a graph or chart using the data.
  - (2) Judging the logical consistency of a solution.
  - (3) Evaluating the pertinence of the data provided.
  - (4) Formulating a new way for categorizing objects.
16. Teachers must believe in which of the following values in the context of dealing with disadvantaged learners?
- (1) Personal accountability for students' success.
  - (2) High expectations of appropriate behaviour.
  - (3) No demands of any sort on the student.
  - (4) For immediate compliance of students, use of being shocked and angry.
17. Stuttering problems in students can be dealt with by applying which of the following methods?
- (1) Dictated speech
  - (2) Prolonged speech
  - (3) Pragmatic speech
  - (4) Protracted speech
18. In the context of learning-disabled children, providing immediate connections, stressing collaboration and leveraging non-learning technologies such as instant messaging, intelligent search and content management are associated with which of the following designs?
- (1) Embedded learning
  - (2) Interventionist learning
  - (3) Reply to remediation
  - (4) Universal design for learning
19. An inclusive classroom is that where:
- (1) assessments are repeated till the time every learner achieves minimum grades
  - (2) teachers teach from only prescribed books to lessen the burden of the students
  - (3) there is an active involvement of children in solving as many problems as possible
  - (4) teachers create diverse and meaningful learning experiences for every learner
20. Which one of the following is an appropriate assignment for a gifted student?
- (1) Many more exercises of the same type in comparison to other students.
  - (2) Asking him/her to tutor the peers to channelize the energy and keep him/her busy.
  - (3) Create a prototype of a new science book based on different themes.
  - (4) Letting him/her finish the textbook on his/her own before the entire class.
21. Many measures have been taken at institutional level to check the dropout cases in the schools run by government agencies. Which of the following is an institutional reason for children dropping out of these schools?
- (1) There is a lack of infrastructure, such as blackboards and toilets.
  - (2) Teachers are not having appropriate qualifications and are paid lesser salaries.
  - (3) Teachers have not been sensitized about the need of treating children well.
  - (4) There is no alternative curriculum for children who reject the compulsory curriculum offered.
22. Learning disabilities are:
- (1) objective facts and culture has no role in determining them
  - (2) synonymous with dyslexia
  - (3) also present in children with average or above-average IQ
  - (4) not immutable irrespective of time and nature of interventions
23. Problem-solving is more likely to succeed in schools where:
- (1) a flexible curriculum is in place
  - (2) homogeneous groups of students are present in the classes
  - (3) the emphasis is only on higher-order academic achievement
  - (4) teacher-centric pedagogy is in effect
24. Cognitive apprenticeships and instructional conversations:
- (1) conceive learning as a social activity
  - (2) are based on application of inductive reasoning
  - (3) emphasize on systematic organization of textual material
  - (4) highlight the need of practical training to achieve efficiency
25. Which of the following should be the right way for a teacher who intends to correct errors of his/her students?
- (1) He/She must correct every error of his/her students even if it requires late sitting in the school.
  - (2) He/She should correct less-frequent errors more often than high-frequent and generality errors.
  - (3) He/She should correct errors that interfere with the general meaning and understandability.
  - (4) He/She should not correct errors if it irritates children.

26. The following skills are involved in emotional intelligence, **except**:
- awareness of emotions
  - management of emotions
  - criticism of emotions
  - amicable relation with class fellows
27. While appearing in an assessment, Devika finds her arousal as energizing, whereas Rajesh finds his arousal as discouraging. Their emotional experiences are most likely to differ with respect to:
- the duration of time
  - the extremity of emotion
  - the level of adaptation
  - the intensity of thought
28. The government of India has started midday meal scheme for the elementary schools. Which of the following theories of motivation supports this scheme?
- Behaviourist
  - Socio-cultural
  - Cognitive
  - Humanistic
29. Attaching importance to the home setting of students for understanding children's behaviour and using this information for building effective pedagogy is related to which of the following theories of learning?
- Behaviourist
  - Ecological
  - Constructivist
  - Social-constructivist
30. Which of the following may be the best way to deal with an inattentive child in the classroom?
- Nag the child as frequently in front of the class to make her/him realize.
  - Make the child sit in the most distraction-reduced area.
  - Allow the child to stand while working so as to enable the child to focus attention.
  - Provide the child frequent breaks to refresh her/his attention.

### Mathematics and Science

**Directions:** Answer the following questions by selecting the correct/most appropriate options.

31. The value of  $0.001 + 1.01 + 0.11$  is:
- 1.111
  - 1.101
  - 1.013
  - 1.121
32. In 1999, the population of a country was 30.3 million. The number which is the same as 30.3 million is:
- 303000000
  - 30300000
  - 3030000
  - 3030000000
33. If  $a^3 = 1 + 7$ ,  $3^3 = 1 + 7 + b$  and  $4^3 = 1 + 7 + c$ , where  $a$ ,  $b$  and  $c$  are different positive integers, then the value of  $a + b + c$  is:
- 58
  - 68
  - 77
  - 79
34. We call a number perfect if it is the sum of all its positive divisors, except itself. For example, 28 is a perfect number because  $28 = 1 + 2 + 4 + 7 + 14$ . Which of the following numbers is a perfect number?
- 13
  - 10
  - 9
  - 6
35. Which of the following numbers is a perfect square?
- 548543213
  - 548543215
  - 548543251
  - 548543241
36. The product of two whole numbers is 24. The smallest possible sum of these numbers is:
- 8
  - 9
  - 10
  - 12
37. The value of  $\frac{3^{502} - 3^{500} + 16}{3^{500} + 2}$  is:
- 2
  - 4
  - 8
  - 16
38. If  $800880 = 8 \times 10^x + 8 \times 10^y + 8 \times 10^z$  where  $x$ ,  $y$  and  $z$  are whole numbers, then the value of  $x + y + z$  is:
- 11
  - 8
  - 6
  - 5
39. One factor of  $x^4 + x^2 + 1$  is:
- $x^2 + 1$
  - $x^2 + x - 1$
  - $x^2 - x + 1$
  - $x^2 - x - 1$
40. The scale of a map is given as 1 : 10000. On the map, a forest occupies a rectangular region measuring 10 cm  $\times$  100 cm. The actual area of the forest, in  $\text{km}^2$ , is:
- 1000
  - 100
  - 10
  - 1
41. A fraction is equivalent to  $\frac{5}{8}$ . Its denominator and numerator add up to 91. What is the difference between the denominator and numerator of this fraction?
- 3
  - 13
  - 19
  - 21
42. The number  $n$  is doubled and then  $y$  is added to it. The result is then divided by 2 and the original number  $n$  is subtracted from it. The final result is:
- $y$
  - $\frac{y}{2}$
  - $n + y$
  - $\frac{n + y}{2}$
43. A polyhedron has 6 faces and 8 vertices. How many edges does it have?
- 10
  - 12
  - 14
  - 15
44. If
- $$\begin{array}{r} 1957 \\ - a9 \\ \hline 18b8 \end{array}$$
- the sum of the digits  $a$  and  $b$  is:
- 15
  - 14
  - 13
  - 12
45. Forty-two cubes each of side 1 cm are glued together to form a solid cuboid. If the perimeter of the base of the cuboid is 18 cm, then its height, in cm, is:
- 1
  - 2
  - 3
  - 4
46. In  $\Delta PQR$ ,  $PQ = 4$  cm,  $PR = 6$  cm and  $QR = 3$  cm. Which of the following is correct?
- $\angle R > \angle Q$
  - $\angle Q > \angle R$
  - $\angle Q = \angle R$
  - $\angle R < \angle P$

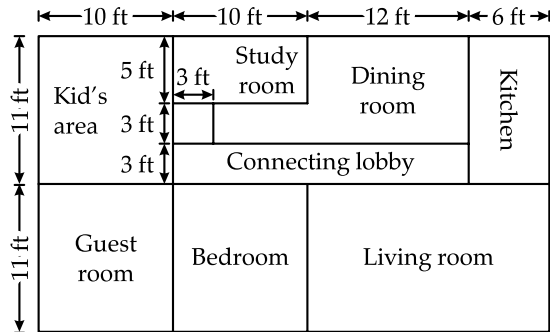
47. In  $\triangle ABC$  and  $\triangle LMN$ ,  $AB = LM$ ,  $AC = LN$  and  $\angle B = \angle M$ . Then the:
- triangles cannot be congruent
  - triangles must be congruent
  - triangles will be congruent if  $\angle C$  is a right angle
  - triangles are congruent only if  $AB = AC$
48. The area of a trapezium-shaped field is  $720 \text{ m}^2$ , the distance between the two parallel sides is  $20 \text{ m}$  and the length of one of the parallel sides is  $35 \text{ m}$ . The length of the other parallel side is:
- $35 \text{ m}$
  - $36 \text{ m}$
  - $37 \text{ m}$
  - $40 \text{ m}$
49. If the cost price of 10 candles is equal to the selling price of 8 candles, the gain/loss percent is:
- 25% gain
  - 20% loss
  - 20% gain
  - 25% loss
50. The mean of median and mode of the data 7, 6, 7, 9, 8, 8, 10, 8 is :
- 5.5
  - 8
  - 8.5
  - 9
51. A teacher conducted a debate in the class on the following topic:  
"Zero is the most significant number."  
She encouraged every child to express his/her view on the topic. The teacher is:
- making her classroom more communicative and reflective
  - passing her time as students are not in mood of studying
  - using her Mathematics class as life-skill class to develop value of argument among the children.
  - inducing problem-solving skill among the children.
52. Under the topic, "Use of exponents to express small numbers in standard form", the following facts are stated:
- The speed of light is  $300000000 \text{ m/sec}$ .
  - The height of the Mount Everest is  $8848 \text{ m}$ .
  - The diameter of a wire on a computer chip is  $0.000003 \text{ m}$ .
  - The size of a plant cell is  $0.00001275 \text{ m}$ .
- The above examples are used to express each stated number in standard form. Use of such examples
- shows the accuracy aspect of numbers
  - reflects the inter-disciplinary approach
  - is made in class to grab the attention of students more interested in science
  - helps the teacher to identify the bright students
53. According to Jean Piaget's theory
- introduction of linear equation and learning techniques of solving it are assimilation and extending the concept to pair of linear equations may raise problem of accommodation.
  - introduction of pair of linear equations and techniques of solving it are assimilation and connecting it to basics of linear equation is accommodation
  - exposure to linear equation, techniques of solving it and pair of linear equations are assimilation
  - learning the concept of linear equation pair of linear equations and quadratic equations is problem of accommodation
54. 'Maths lab activities' can be used for
- formative assessment only
  - summative assessment only
  - both formative as well as summative assessment
  - selecting students for National Mathematics Olympiad
55. As per the NCF, 2005
- narrow aim of teaching Mathematics at school is to teach number system and higher aim is to teach algebra
  - narrow aim of teaching Mathematics at school is to teach calculation and higher aim is to teach measurement
  - narrow aim of teaching Mathematics at school is to develop numeracy-related skill and higher aim is to develop problem-solving skill
  - narrow aim of teaching Mathematics at school is to teach arithmetic and higher aim is to teach algebra
56. According to Bloom's revised taxonomy, the cognitive objective that can be achieved through the following task  
"Prepare a PowerPoint presentation on contribution of Indian Mathematicians." is
- remembering
  - understanding
  - analysing
  - creating
57. Read the approaches used by the two teachers to teach solving of linear equation, say  $2x - 6 = 10$ .

Teacher A	Teacher B
<b>Steps</b>	<b>Steps</b>
(a) Take 6 on other side	(i) Equation always maintains equality. So same number can be performed on both sides to maintain equality
(b) Change the sign of 6 and add to 10	(ii) Hence
(c) Get $2x = 16$	$2x - 6 + 6 = 10 + 6$
(d) Take 2 on the other side and divide	or $2x = 16$
(e) Get $x = 8$	(iii) $\frac{2x}{2} = \frac{16}{2}$
	$x = 8$

It can be observed that

- teacher A emphasizes on instrumental understanding while teacher B emphasizes on relational understanding
- teacher A emphasizes on relational understanding while teacher B emphasizes on instrumental understanding
- teacher A focuses on conceptual knowledge while teacher B focuses on procedural knowledge
- teachers A and B focus on instrumental understanding

58. Class VI students were given the following layout of a house.



The students were asked to find out the—

- (A) perimeter and area of each room;  
 (B) total perimeter and total area of the house.

The above activity can be used by teacher as formative task because:

- (1) it will be easy for teacher to engage all the students for 40 minutes period
  - (2) the students responses will help teacher to diagnose their understanding regarding finding dimensions, calculations, knowledge of formulae for perimeter and area, etc.
  - (3) the students will find the task interesting and will not disturb each other.
  - (4) it will remove the phobia of Maths examination
59. Students' ability to apply the concept of square roots in real life situation can be assessed through the following problem:
- (1) Find the smallest square number that is divisible by each of the numbers 4, 9 and 10.
  - (2) Calculate the square root of 25600.
  - (3) Find the smallest number that may be subtracted from 5607 to get a perfect square
  - (4) 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and number of plants in each row.

60. A student writes

$$\frac{10 \text{ cm}}{12 \text{ cm}} = \frac{5}{6} \text{ cm}$$

$$\frac{15 \text{ km}}{15 \text{ m}} = 1000 \text{ cm}$$

This student

- (1) always commits clerical error of writing unit with ratio
- (2) has clear concept of units and their conversion
- (3) can reduce fractions to lowest term correctly and can write the units properly.
- (4) has concept of units, conversion of units, fractions but missed the concept that ratio does not have units

**Directions:** Answer the following questions (Q. Nos. 61 to 90) by selecting the correct/most appropriate options.

61. Study the following statements about excretory system in humans:
- A. Wastes dissolved in water are filtered out as urine in the kidneys.

- B. Urine stored in urinary bladder is passed out through the urinary opening at the end of the urethra.  
 C. Ureter carries urine to the urinary bladder.  
 D. Useful substances are absorbed back in the blood.  
 E. Blood containing useful and harmful substances reaches the kidney for filtration.

The correct order of the processes given in the above statements is:

- (1) D, E, A, C, B
  - (2) E, D, A, C, B
  - (3) B, D, E, A, C
  - (4) E, D, A, B, C
62. The pseudopodia of amoeba are used for:
- (1) sensing the food only
  - (2) capture of food only
  - (3) movement only
  - (4) movement and capture of food
63. Below are given some organisms:
- |               |             |
|---------------|-------------|
| (A) Yeasts    | (B) Bedbugs |
| (C) Leeches   | (D) Cuscuta |
| (E) Algae     | (F) Lice    |
| (G) Mushrooms | (H) Lichens |
- The organisms which may be classified in the group of Parasites are
- (1) A, C, F and G
  - (2) B, C, D and H
  - (3) B, C, D and F
  - (4) C, D, E and G
64. In Column-A, names of scientists are given and in Column-B, some discoveries are given:

Column-A	Column-B
A. Alexander Fleming	(i) Anthrax bacterium
B. Edward Jenner	(ii) Fermentation
C. Louis Pasteur	(iii) Lactobacillus bacterium
D. Robert Koch	(iv) Penicillin
	(v) Smallpox vaccine

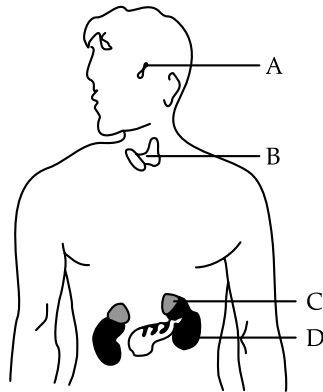
The correct match of the names of scientists with their discoveries is:

- |     |          |          |          |          |
|-----|----------|----------|----------|----------|
|     | <b>a</b> | <b>b</b> | <b>c</b> | <b>d</b> |
| (1) | iv       | v        | ii       | i        |
| (2) | i        | iii      | ii       | iv       |
| (3) | iv       | ii       | v        | iii      |
| (4) | iii      | v        | ii       | i        |
65. Select the correct statement about biosphere reserves.
- (1) These are the protected areas meant for the conservation of endemic species only.
  - (2) These are the areas meant only for the conservation of plants and animals.
  - (3) These are the areas which help to maintain the biodiversity and culture of the areas.
  - (4) These are the protected areas reserved for wildlife where they can freely use the habitats and natural resources.
66. Study the following statements:
- A. Prokaryotes do not have nucleus.  
 B. A single cell can perform all the functions in a unicellular organism.  
 C. Blue-green algae are the examples of prokaryotes.  
 D. Eukaryotes do not have well organized nucleus with a nuclear membrane.

The correct statements are:

- (1) A, B and C                      (2) A, B and D  
 (3) A, C and D                      (4) B, C and D

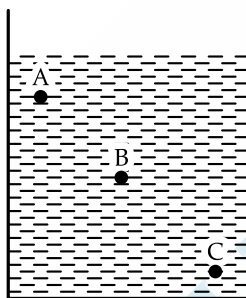
67. In the given diagram, positions of four endocrine glands in the human body are marked by the letters A, B, C and D:



The correct labelling of A, B, C and D is:

- (1) A-pituitary gland, B-thyroid gland, C-adrenal gland, D-pancreas  
 (2) A-adrenal gland, B-pituitary gland, C-pancreas, D-thyroid gland  
 (3) A-adrenal gland, B-thyroid gland, C-pancreas, D-pituitary gland  
 (4) A-pituitary gland, B-pancreas, C-thyroid gland, D-adrenal gland

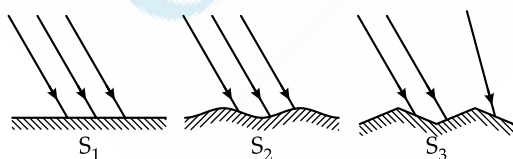
68. A rectangular container given below is filled with a liquid heavier than water:



Select the correct statement from the following about the liquid pressure.

- (1) Pressure at A = Pressure at B = Pressure at C  
 (2) Pressure at A > Pressure at B > Pressure at C  
 (3) Pressure at C > Pressure at B = Pressure at A  
 (4) Pressure at C > Pressure at B > Pressure at A

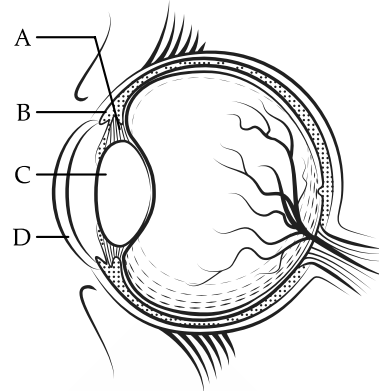
69. Light is falling on the surfaces  $S_1$ ,  $S_2$  and  $S_3$  as shown below:



The surfaces on which the angle of incidence is equal to the angle of reflection are

- (1)  $S_1$  and  $S_2$                       (2)  $S_2$  and  $S_3$   
 (3)  $S_1$  and  $S_3$                       (4) All the three surfaces

70. In the diagram of human eye given below, the parts marked by A, B, C and D should be labelled as



- (1) A-ciliary muscle, B-pupil, C-lens, D-cornea  
 (2) A-iris, B-pupil, C-lens, D-cornea  
 (3) A-iris, B-cornea, C-pupil, D-lens  
 (4) A-ciliary muscle, B-iris, C-lens, D-cornea

71. Impression of an image persists on the retina of human eye for about:

- (1) 1 second                              (2) 1/2 second  
 (3) 1/15 second                          (4) 1/25 second

72. Study the following statements:

- A. Germination of seeds does not take place under dry conditions.  
 B. Nutrients get transported to each part of the plant in dissolved form.  
 C. The supply of water to crops at different intervals improves the texture of the soil.  
 D. The supply of water to crops makes the soil porous due to which exchange of gases becomes easy.  
 E. Water protects the crops from both frost and hot air currents.

The statements which justify the need to irrigate crops are:

- (1) A, B and C                              (2) B, C and D  
 (3) C, D and E                              (4) A, B and E

73. Study the following statements:

- A. Chromosomes are located in the nucleolus.  
 B. Genes are located in the chromosomes.  
 C. Unicellular organisms respire and reproduce.  
 D. The most important function of cell membrane is to control the entry and exit of materials from cells.

The correct statements are:

- (1) A, B and C                              (2) B, C and D  
 (3) A, C and D                              (4) A, B and D

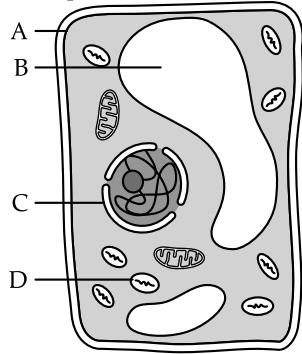
74. The ultrasound equipments used for investigating medical problems work at frequency:

- (1) below 20 Hz  
 (2) between 20 Hz and 200000 Hz  
 (3) between 2000 Hz and 20000 Hz  
 (4) above 20000 Hz

75. A solid rectangular block of iron is kept over the top of a table with its different faces touching the table. In different cases, the solid block exerts:

- (1) same force and same pressure  
 (2) same force but different pressures  
 (3) different forces and different pressures  
 (4) different forces but same pressure

76. In the diagram of animal cell given below, the correct labelling of the parts A, B, C and D is:



- (1) A-cell wall, B-vacuole, C-chloroplast, D-nucleus  
 (2) A-cell membrane, B-vacuole, C-nucleus, D-cytoplasm  
 (3) A-cell membrane, B-plastids, C-nucleus, D-chloroplast  
 (4) A-cell wall, B-vacuole, C-nucleus, D-mitochondria
77. The odometer reading of a moving car at 8:00 a.m. is 36540 km and at 10:00 a.m. 36666 km. If the car is moving on a zigzag path with variable speeds, its average speed in metres per second is:  
 (1) 6.3 (2) 12.6  
 (3) 17.5 (4) 35
78. A boy has a thick paste of turmeric. On adding this paste to hydrochloric acid and aqueous solution of sodium hydroxide separately, what colour(s) would he observe?  
 (1) Yellow in both cases  
 (2) Yellow in hydrochloric acid and red in sodium hydroxide  
 (3) Pink in hydrochloric acid and blue in sodium hydroxide  
 (4) Blue in hydrochloric acid and red in sodium hydroxide
79. Study the following statements with reference to the villi of small intestine:  
 A. They are finger-like outgrowths and thousands in number.  
 B. They have very thin walls.  
 C. They have a network of thin and small blood vessels close to the surface.  
 D. They have small pores through which food can easily pass.
- The statements which enable the villi to absorb the digested food are:  
 (1) A and B only (2) C and D only  
 (3) A, B and C (4) B, C and D
80. Given below are some food items:  
 A. Boiled and mashed potato.  
 B. Boiled and chewed rice.  
 C. A slice of bread.  
 D. Sugar solution.  
 E. Coconut oil.
- Which of the above will give blue-black colour when tested with iodine solution?  
 (1) A and C (2) B and D  
 (3) A, B and C (4) A, C and E

81. While teaching the correct method of using a spring balance to Class VIII students, Gunjan mentions the following steps (not in correct sequence) to be followed:  
 A. Note the zero error.  
 B. Calculate the actual reading.  
 C. Note the position of pointer on the graduated scale.  
 D. Record the least count of the spring balance.
- Which one of the following is the correct sequence of the steps to be followed for the said purpose?  
 (1) A, D, B, C (2) D, A, C, B  
 (3) A, D, C, B (4) A, B, D, C
82. Which one of the following is **not** a desired objective of learning of Science at upper primary stage?  
 (1) To acquire scientific literacy.  
 (2) To develop rational thinking.  
 (3) To acquire essential process skills.  
 (4) To perform better in competitive examinations.
83. The technique of role-play is considered to be an effective strategy in teaching of Science because:  
 (1) it ensures better understanding of one's role in real life  
 (2) it ensures active participation of students in the process of learning  
 (3) it is likely to promote social skills of students  
 (4) it ensures breaking of monotony in the process of learning
84. Science is considered to be questioning, exploring, doing and investigating. Which of the following activities, carried out by Dipika in teaching of Science, is best suited to satisfy these criteria?  
 (1) Unit test on micro organisms.  
 (2) A group discussion on common diseases.  
 (3) A debate on environmental issues.  
 (4) Project work on nature of sound.
85. The National Curriculum Framework (NCF), 2005 recommends that teaching of Science at upper primary stage should emphasize maximum on:  
 (1) relating classroom learning to life outside the school  
 (2) memorizing all scientific terms given in textbook  
 (3) answering all questions given in textbook exercises  
 (4) improving students performance in examinations
86. Geeta is preparing a lesson-plan for teaching the topic on 'Human eye' to Class VIII students. Inclusion of which of the following activities in the lesson-plan is likely to be most effective in helping the students understand related concepts better?  
 (1) Preparing a good home assignment.  
 (2) Dictating notes to students in the classroom.  
 (3) Using student activities and interactive classroom questioning.  
 (4) Demonstration using model of human eye.
87. On the basis of recommendations of National Curriculum Framework (NCF), 2005, NCERT textbooks in Science lay greater emphasis on:  
 A. discouraging rote learning  
 B. maintaining sharp boundaries between different domains of Science curriculum  
 C. providing active learning experiences to students  
 D. learning exact definitions of scientific terms

Which one of the following pairs represents the combination of correct statements given above?

- (1) A and B                      (2) A and C  
(3) C and D                      (4) B and C

88. Which one of the following approaches adopted by a Science teacher reflects scientific temper on her part?

- (1) Maintaining perfect discipline in the class.  
(2) Covering the prescribed syllabus as quickly as possible.  
(3) Encouraging students to ask questions in the classroom.  
(4) Preparing difficult question papers to enhance learning.

89. The following steps (not in the proper sequence) are generally recommended to be followed in scientific method:

- A. Testing of hypothesis  
B. Formulation of hypothesis  
C. Identification of problem  
D. Collection of data  
E. Drawing of conclusion

Which one of the following is the correct sequence of the above steps to be followed for this purpose?

- (1) C, A, D, B, E                      (2) C, B, D, A, E  
(3) D, C, B, A, E                      (4) B, C, A, D, E

90. Hands-on activities and projects form an integral part of learning of Science. These learning experiences primarily aim at:

- (1) assessing the students on practical skills  
(2) keeping the students engaged all the time  
(3) maintaining discipline in the laboratory  
(4) providing opportunity to students for extended learning

### Language: English

**Directions:** Read the given passage and answer the questions (Q. Nos. 91 to 99) that follow by selecting the most appropriate option

Have you ever wondered what the qualities of a really professional teacher are? I know that all teachers want their students to like them, but being liked isn't the be-all and end-all really, is it? I mean teachers have to make some unpopular decisions sometimes. Teachers can be popular just because they are friendly and helpful, but to be truly professional and effective, we need to be able to identify the skills and behaviour we require in a true professional: A professional teacher needs to be confident without being arrogant. Nobody can expect to have all the answers, so, if a student asks a real stinker, the professional teacher should be able to admit defeat but offer to find out more for the student. And they must carry that promise out. When the teacher enters the classroom, she/he should have all the required materials and the lesson-plan ready. And, in orchestrating the class, the teacher must give everyone their chance to contribute and should be flexible enough to modify lessons if they are obviously not going to plan. Indeed, a fallback position is part of good planning. It stands to reason also that a teacher must observe punctuality and appropriate tidiness and dress: it is not possible to demand such behaviour from students if the teacher doesn't set the standards.

The last thing I would mention is that teachers should be able to feel that their professionalism entitles them to back up from the school directors. If a teacher has a problem

class or student, then the school should have procedures for handling the difficulties. The teacher should not have to feel alone and vulnerable if a difficult situation arises. So, yes, professionalism cuts both ways in the standards we demand of teachers and the framework we have for giving them support.

91. The expression isn't the *be-all and end-all*.. is an assumption that pertains to the \_\_\_\_\_ point of view.

- (1) writer's                              (2) teachers'  
(3) students'                            (4) general

92. Here, the fallback position is the system where \_\_\_\_\_ well-prepared.

- (1) good students are  
(2) good teachers are  
(3) teachers, even if caught out unexpectedly, are still  
(4) students and teacher's who support each other are

93. Here, able to admit defeat implies that

- (1) students can catch a teacher unaware  
(2) teachers easily lose self-confidence as they lack professionalism  
(3) it doesn't matter if students often contradict what their teacher says  
(4) teachers should be confident enough to own up to their 'unpreparedness'

94. Here, *orchestrating the class* suggests

- (1) the teacher controlling the class to ensure high grades  
(2) the whole class performing uniformly well  
(3) acknowledging the individual differences in the process of achievement  
(4) that music helps academic achievement

95. Here, *...asks a real stinker...* suggests that...

- (1) teachers are always unprepared  
(2) students can be better informed than their teachers  
(3) students dislike teachers in general  
(4) teachers are unprofessional in students' eyes

96. A word that can best replace the word entitles in the passage is

- (1) warrants                              (2) names  
(3) calls                                    (4) gives

97. The writer's view that *professionalism cuts both ways* means

- (1) teachers are faced with students and trustees hold them accountable  
(2) teachers teach well when trustees pay them well  
(3) trustees and their employees owe each other support  
(4) students and teachers-owe respect to the management of their school

98. A word from the passage that is the antonym of the word *unshakable*, is

- (1) vulnerable                            (2) difficult  
(3) helpful                                (4) effective

99. Here, *framework* refers to the overall

- (1) school curriculum  
(2) clearly spelt out duties for teachers  
(3) system for assessment of teachers' performance  
(4) transparency in fixing teachers' salary





115. When they encounter unfamiliar words during a reading activity, students should be trained to \_\_\_\_\_ while processing the meaning of the whole text
- (1) refer a dictionary to find out the meaning immediately
  - (2) ask the teacher or neighbour
  - (3) use information in its context to correctly guess its rough area of meaning
  - (4) choose more simple texts
116. Identify, the question that assesses students' ability to infer the meaning of the text.
- (1) Why did Mohan change his mind despite his parents' advice?
  - (2) Where did Tom and his parents live?
  - (3) Use the phrase in disbelief in a sentence of your own.
  - (4) Give the opposite of 'delighted'.
117. While assessing a report of a school programme for a class journal, the following are the main criteria
- (1) Descriptive presentation, title, writer's name
  - (2) Word limit, title, factual description
  - (3) Literary style, chronological presentation, word limit
  - (4) Relevance, logical organization of content, a direct style
118. While learning a language, the \_\_\_\_\_ instruction provides opportunities for independent study; a wide range of reference material "and immediate feedback about achievement.
- (1) programmed
  - (2) computer-aided
  - (3) direct
  - (4) distance
119. A dual-language classroom consisting of students speaking a native language and the target language is beneficial because it
- (1) motivates target language speaking students learn another language and vice versa
  - (2) offers an opportunity for, separate project work
  - (3) justifies conducting more activities in each language"
  - (4) causes less distractions in the class as students will talk less
120. A student has difficulty in applying the learned knowledge, for example, in word problems, the student also fails to translate sentences' into equations or identify the variables. A possible. solution to this problem could be
- (1) pairing him/her with high achievers
  - (2) giving carefully designed assignment-simpler-simple-complex
  - (3) allowing more time to complete the same activity
  - (4) giving only simple assignments to boost their confidence

### Language: Hindi

निर्देश (121-129): नीचे दिए गए गद्यांश को पढ़कर पूछे गए प्रश्नों के सबसे उपयुक्त उत्तर वाले विकल्प चुनिए—

समूची स्वार्थी व अहं-प्रेरित प्रवृत्तियाँ नकारात्मक हैं, ऐसे कर्मों में ऊँचे उद्देश्य नहीं होते, उनमें लोक-संग्रह नहीं होता, भव्य आदर्श नहीं होते। दूसरे, भले ही आप अपने सामने एक ऊँचा आदर्श रखें, तो भी आपके कर्म यदि आपके मन के चाहे या अनचाहे से प्रेरित हैं तो वे हासमान ही

होंगे, क्योंकि पसंद-नापसंद से किए गए कार्य वासनाओं को बढ़ाए बिना नहीं रहते। कोई काम आपको महज इस आधार पर नहीं करना चाहिए कि वह आपको पसंद है। उसी तरह कोई काम करने से आपको महज इस आधार पर नहीं कतराना चाहिए कि वह काम आपका मनचाहा नहीं है। कार्य का निर्णय बुद्धि-विवेक के आधार पर होना चाहिए, मनचली भावनाओं, तुनकमिजाजी के आधार पर कतई नहीं। इस एक बात को हमेशा याद रखिए कि पसंद और नापसंद आपके सबसे बड़े शत्रु हैं। आप इन्हें पहचानते तक नहीं। उल्टे आप इन्हें पाल-पोसकर दुलारते हैं। वे हर क्षण आपकी हानि व हास करने पर ही तुले हैं। इनसे निबटने का व्यावहारिक मार्ग यह है कि अपनी रुचि और अरुचि का विश्लेषण करें।

121. कैसी प्रवृत्तियाँ नकारात्मक हैं?
- (1) जो स्वयं का हित देखती हों
  - (2) जो अहं से ग्रसित हों
  - (3) जिनमें अर्थ का भाव हो
  - (4) जिनमें अहं और स्व-हित का भाव हो
122. कौन-से कार्य हानि की ओर ले जाते हैं?
- (1) जो मन के अनुसार और हित साधते हैं।
  - (2) जो अपनी पसंद-नापसंद के आधार पर किए जाते हैं।
  - (3) जिनमें संग्रह अनुपस्थित होता है।
  - (4) जिनमें संग्रह कूट-कूटकर भरा होता है।
123. इस गद्यांश में किस प्रकार के कार्यों का समर्थन किया गया है?
- (1) जो मनचाहे होते हैं।
  - (2) जो मनचाहे नहीं होते हैं।
  - (3) जो बुद्धि और विवेक-शक्ति के आधार पर किए जाते हैं।
  - (4) जो मनचली भावनाओं और बुद्धि से परे होते हैं।
124. इस गद्यांश में किन्हें शत्रु कहा गया है?
- (1) मनचली भावनाएँ
  - (2) तुनकमिजाजी
  - (3) अहं और स्वार्थ
  - (4) रुचि-अरुचि
125. लेखक ने इन शत्रुओं से निबटने का कौन-सा मार्ग सुझाया है?
- (1) विश्लेषण करना
  - (2) भव्य आदर्श रखना
  - (3) लोक-संग्रह करना
  - (4) कर्म करना
126. 'नकारात्मक' का विलोम शब्द है—
- (1) अनकारात्मक
  - (2) सकारात्मक
  - (3) अननकारात्मक
  - (4) असकारात्मक
127. "वे तो हर क्षण आपकी हानि व हास करने पर ही तुले हैं।" वाक्य में 'वे' सर्वनाम किसके लिए आया है?
- (1) मनचली भावनाओं के लिए
  - (2) अहं-प्रेरित प्रवृत्तियों के लिए
  - (3) स्वार्थ-प्रेरित प्रवृत्तियों के लिए
  - (4) पसंद-नापसंद के लिए
128. किस शब्द में 'ना' उपसर्ग का प्रयोग नहीं किया जा सकता है?
- (1) काबिल
  - (2) हाजिर
  - (3) पसंद
  - (4) वाकिफ
129. 'विश्लेषण' का विलोम है—
- (1) संश्लेषण
  - (2) अविश्लेषण
  - (3) संश्लिष्ट
  - (4) संक्षेपण

निर्देश (130-135): नीचे दी गई काव्य-पंक्तियों को पढ़कर सबसे उचित विकल्प का चयन कीजिए—

सदियों की ठंडी-बुझी राख सुगबुगा उठी,  
मिट्टी सोने का ताज पहन इठलाती है;  
दो राह, समय के रथ का घर्घर-नाद सुनो

सिंहासन खाली करो कि जनता आती है।  
जनता, हाँ, मिट्टी की अबोध मूरतें वही,  
जाड़े-पाले की कसक सदा सहने वाली  
जब अंग-अंग में लगे साँप हों चूस रहे,  
तब भी न कभी मुँह खोल दर्द कहने वाली।

130. काव्य में किस जनता की ओर संकेत किया गया है?

- (1) जिसे बोध है।
- (2) जिसे साँप काटते हैं।
- (3) जो खेतों-खलिहानों, कारखानों में काम करती है।
- (4) जो रथ चलाती है।

131. 'समय के रथ का घर्घर-नाद सुनो'—पंक्ति का आशय है—

- (1) अब समय बदल रहा है।
- (2) समय का रथ बढ़ा आ रहा है।
- (3) समय कोलाहल कर रहा है।
- (4) समय ने युद्ध-नाज बजा दिया है।

132. 'सिंहासन खाली करो कि जनता आती है।' पंक्ति का भाव है—

- (1) राजा के सिंहासन को खाली करना होगा
- (2) जनता, राजा का सिंहासन हिला देगी
- (3) सारी जनता अब सिंहासनों पर ही बैठेगी
- (4) राजतंत्र के विरुद्ध लोकतंत्र का स्वागत

133. सामान्य जनता ने अब तक बहुत कष्ट सहे हैं—इस भाव को व्यक्त करने वाली पंक्ति है—

- (1) जनता, हाँ, मिट्टी की अबोध मूरतें वही
- (2) जाड़े-पाले की कसक सदा सहने वाली
- (3) सदियों की टंडी-बुझी राख सुगबुगा उठी
- (4) मिट्टी सोने का ताज पहन इठलाती है।

134. 'साँप' किसकी ओर संकेत करता है?

- (1) विषैले साँपों की ओर
- (2) जमींदारों की ओर
- (3) शोषकों की ओर
- (4) सूदखोरों की ओर

135. 'सुगबुगा उठना' का अर्थ है—

- (1) राख का जल उठना
- (2) अफवाह फैलाना
- (3) धीरे-धीरे कहना
- (4) अपने हक के लिए प्रयत्नशील होना

निर्देश (136-150): नीचे दिए गए प्रश्नों के सबसे सही विकल्प का चयन कीजिए—

136. उच्च प्राथमिक स्तर पर भाषा-शिक्षण का सर्वोपरि उद्देश्य है—

- (1) भाषा के सौंदर्यशास्त्र से परिचय
- (2) निजी अनुभवों के आधार पर भाषा का सृजनशील इस्तेमाल
- (3) विभिन्न साहित्यिक विधाओं का गहनतम ज्ञान प्राप्त करना
- (4) सरसरी तौर पर तीव्र गति से पढ़ना

137. सुनी, पढ़ी और समझी हुई भाषा को सहज और स्वाभाविक लेखन द्वारा अभिव्यक्त करने की क्षमता का विकास करने में निम्नलिखित में से कौन सहायक है?

- (1) औपचारिक पत्र-लेखन
- (2) किसी पढ़ी हुई कहानी को संक्षेप में लिखना
- (3) सुनी, देखी, पढ़ी घटना को अपने शब्दों में लिखित रूप में अभिव्यक्त करना
- (4) 'मेरा प्रिय विद्यालय' विषय पर निबंध लिखना

138. भाषा के संदर्भ में स्कूली जीवन का यह उच्च प्राथमिक चरण ..... और ..... बोध के विकास की दृष्टि से अत्यंत महत्वपूर्ण है।

- (1) भाषा, साहित्य, ऐतिहासिक
- (2) साहित्य बोध, सराहना बोध, ऐतिहासिक
- (3) साहित्य, सराहना, सामाजिक
- (4) सौन्दर्य बोध, साहित्य बोध, सामाजिक-राजनैतिक

139. उच्च प्राथमिक स्तर पर व्याकरण-शिक्षण का उद्देश्य ..... में सहायक होगा।

- (1) व्याकरण की परिभाषाओं को कंठस्थ करने
- (2) भाषा की नियमबद्ध प्रकृति को समझने और उसका विश्लेषण करने
- (3) भाषा की नियमबद्ध प्रकृति को अत्यधिक महत्त्व देने
- (4) भाषा की प्रकृति, प्रकार्य और व्याकरणिक नियमों को कंठस्थ करने

140. उच्च प्राथमिक स्तर पर हिन्दी भाषा-विकास के लिए कौन-सी गतिविधि उपयोगी नहीं हो सकती?

- (1) पढ़ी गई कहानियों का समूह में नाट्य-रूपांतरण
- (2) विज्ञापनों, पोस्टरों, साइनबोर्ड और भाषा के अन्य उपयोगों का विश्लेषण करना
- (3) मुहावरों के अर्थ लिखकर वाक्य बनाना
- (4) सूचना, डायरी-लेखन, विज्ञापन-लेखन आदि का कार्य करवाना

141. उच्च प्राथमिक स्तर पर व्याकरण-शिक्षण की सर्वाधिक उचित विधि है—

- (1) निगमन विधि
- (2) आगमन विधि
- (3) भाषा-संसर्ग विधि
- (4) सूत्र विधि

142. बच्चों का भाषायी विकास सर्वाधिक रूप से निर्भर करता है—

- (1) पाठ्यपुस्तक पर
- (2) समृद्ध भाषा-परिवेश पर
- (3) आकलन की औपचारिकता पर
- (4) संचार-माध्यमों पर

143. उच्च प्राथमिक स्तर पर यह जरूरी है कि बच्चे—

- (1) समाचार-पत्र में छपी किसी खबर, लेख या कही गई बात का निहितार्थ समझ सकें
- (2) अपनी पाठ्यपुस्तक के सभी पाठों का अभ्यास कर सकें
- (3) भाषा के आकलन के लिए की जाने वाली सभी गतिविधियों में समान रूप से हिस्सा लें
- (4) भाषा का अतिरिक्त अभ्यास करें और परियोजना-कार्य में इंटरनेट का प्रयोग करें

144. भाषा सीखने का अर्थ उस भाषा की ..... सीखना भी, है क्योंकि भाषा किसी भी ..... का अभिन्न हिस्सा होती है।

- (1) बारीकी, व्याकरण
- (2) नियमबद्धता, व्याकरण
- (3) ऐतिहासिकता, इतिहास
- (4) संस्कृति, संस्कृति

145. कक्षा आठ के बच्चों के लिए साहित्य का चयन करते समय आपके लिए क्या जानना सर्वाधिक जरूरी है?

- (1) बच्चों की भाषिक पृष्ठ भूमि
- (2) बच्चों की मनोवैज्ञानिक विशेषताएँ और भाषा-प्रयोग की क्षमता
- (3) बच्चों के भाषा-प्रयोग का स्तर
- (4) अच्छे साहित्य के प्रकाशक, लेखक

146. नाटक, सिनेमा, परिचर्चा, वाद-विवाद आदि बच्चों की ..... व स्वाभाविक, ..... एवं ..... प्रतिक्रिया व्यक्त करने की क्षमता का विकास करने में मदद करते हैं।

- (1) मानक, सहज, प्रभावी
- (2) मानक, प्रभावी, संस्कृतनिष्ठ
- (3) स्वतंत्र, मौखिक, लिखित
- (4) स्वतंत्र, प्रभावी, संस्कृतनिष्ठ

147. हमारे अनुभवों को आकार देने में भाषा की महत्वपूर्ण भूमिका होती है। इसका शैक्षिक निहितार्थ यह है कि भाषा की कक्षा में
- (1) सदैव अनुभवों पर बातचीत की जाए
  - (2) अनुभवों का लेखन-कार्य बढ़ाया जाए
  - (3) डायरी-लेखन पर जोर दिया जाए ताकि लेखन परिपक्व बन सके
  - (4) बच्चों को विविध संदर्भों में अनुभव करने, विविध अनुभवों से स्वयं को जोड़ने के अवसर दिए जाएँ
148. मुदिता आठवीं कक्षा में हिन्दी भाषा पढ़ती हैं। कविता के भाव के बारे में बातचीत करते समय आप उन्हें किस बात के प्रति सचेत रहने की सलाह देंगे?
- (1) कविता में अलंकार, रस का विशेष बल दिया जाए
  - (2) कविता का एक निश्चित भाव, अर्थ नहीं हो सकता
  - (3) कविता को गद्य में परिवर्तित करवाने वाली गतिविधि
  - (4) कविता की भाषा, व्याकरण पर विशेष बल दिया जाए
149. हिन्दी भाषा का आकलन करते समय 'पोर्टफोलियो' बच्चों के बारे में यह बताता है कि—
- (1) वे क्या जानते हैं।
  - (2) क्रमशः उनकी प्रगति किस प्रकार हो रही है।
  - (3) उनकी प्रगति में माता-पिता की भूमिका कैसी है।
  - (4) उनकी प्रगति में शिक्षकों की भूमिका कितनी है।
150. किस साहित्यिक विधा को पढ़ाते समय आप सस्वर पठन पर अनिवार्यतः बल देंगे?
- (1) जीवनी
  - (2) यात्रा-वृत्तान्त
  - (3) आत्मकथा
  - (4) एकांकी

**ANSWER KEY****Child Development and Pedagogy**

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

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 16. (1) | 17. (2) | 18. (1) | 19. (4) | 20. (2) |
| 21. (4) | 22. (3) | 23. (1) | 24. (1) | 25. (3) |
| 26. (3) | 27. (3) | 28. (4) | 29. (2) | 30. (2) |

**Mathematics and Science**

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 31. (4) | 32. (2) | 33. (3) | 34. (4) | 35. (4) |
| 36. (3) | 37. (3) | 38. (2) | 39. (3) | 40. (3) |
| 41. (4) | 42. (2) | 43. (2) | 44. (2) | 45. (3) |
| 46. (2) | 47. (1) | 48. (3) | 49. (1) | 50. (2) |
| 51. (1) | 52. (2) | 53. (1) | 54. (3) | 55. (3) |
| 56. (4) | 57. (1) | 58. (2) | 59. (4) | 60. (4) |
| 61. (2) | 62. (4) | 63. (3) | 64. (1) | 65. (4) |
| 66. (1) | 67. (1) | 68. (4) | 69. (4) | 70. (4) |
| 71. (3) | 72. (4) | 73. (2) | 74. (4) | 75. (2) |
| 76. (2) | 77. (3) | 78. (2) | 79. (3) | 80. (1) |
| 81. (2) | 82. (4) | 83. (2) | 84. (4) | 85. (1) |
| 86. (4) | 87. (2) | 88. (3) | 89. (2) | 90. (4) |

**Language: English**

- |          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 91. (2)  | 92. (3)  | 93. (4)  | 94. (3)  | 95. (2)  |
| 96. (1)  | 97. (3)  | 98. (1)  | 99. (1)  | 100. (2) |
| 101. (1) | 102. (1) | 103. (1) | 104. (4) | 105. (1) |
| 106. (2) | 107. (3) | 108. (3) | 109. (4) | 110. (1) |
| 111. (4) | 112. (1) | 113. (3) | 114. (2) | 115. (3) |
| 116. (1) | 117. (4) | 118. (2) | 119. (1) | 120. (2) |

**Language: Hindi**

- |          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 121. (4) | 122. (2) | 123. (3) | 124. (4) | 125. (1) |
| 126. (2) | 127. (4) | 128. (2) | 129. (1) | 130. (3) |
| 131. (1) | 132. (4) | 133. (2) | 134. (3) | 135. (4) |
| 136. (2) | 137. (3) | 138. (4) | 139. (2) | 140. (3) |
| 141. (2) | 142. (2) | 143. (1) | 144. (4) | 145. (2) |
| 146. (4) | 147. (4) | 148. (2) | 149. (2) | 150. (4) |

## Child Development and Pedagogy

**1. Option (1) is correct.**

**Explanation:**



The above shared is the correct graphical representation of the development according to Piaget's development theory, which shows the discreteness or discontinuous stages of development based on age, representing child development and constructing their understanding level in distinct and separate phases.

**2. Option (1) is correct.**

**Explanation:** A teacher found that a student is facing difficulty in drawing a square. He/she assumes that this student would also find it difficult to draw a diamond. He/she applies development tends to follow an orderly sequence principle to arrive at his/her assumption.

- Development refers to qualitative changes and quantitative changes taking place in an individual through various stages of life by following an orderly sequence which means every stage has its own importance.

**3. Option (3) is correct.**

**Explanation:** The relative effects of heredity and environment vary in different areas of development is a true statement regarding the role of heredity and environment in human development.

- Heredity and environment are inseparably interwoven and both influence development of an individual. Heredity is influenced by genetics in a child. For example, characteristics of physical growth, personality, intellectual growth, social interaction, etc. Whereas the environment is influenced by environmental factors like family, neighbour or school are provided that are provided to a child. Thus, relative effect of heredity and environment may vary in different areas of the development from individual to individual.

**4. Option (2) is correct.**

**Explanation:** In the context of socialization, schools often have a hidden curriculum which consists of the informal cues about social roles presented in schools through interaction and materials.

- Hidden curriculum refers to the informal learning (such as values, beliefs, norms, and behavior as expected by society) that takes place in an educational setting/school.

**5. Option (4) is correct.**

**Explanation:** Implications that cannot be derived from Piaget's theory of cognitive development are needed for verbal teaching.

- Jean Piaget, a Swiss Psychologist, proposed Theory of Cognitive Development comprises 4 stages of learning, i.e., Schema, Assimilation, Accommodation, and Equilibrium. His theory is based on how knowledge is acquired, constructed, and used by a child. He emphasizes child cognitive development with experience and maturation but did not emphasize the role of language development.

**6. Option (3) is correct.**

**Explanation:** Universal sequences of stages across all cultures is a characteristic of Kohlberg's stages of moral development.

- Lawrence Kohlberg proposed 'Stages of Moral Development' including three levels and six stages. Universal sequences of stages across all cultures is an important characteristic emphasized in the theory.

**7. Option (4) is correct.**

**Explanation:** Teachers and students draw on one another's expertise while working on complex projects related to real world problems in social-constructivist classrooms.

- Constructivist Classrooms allow learners to build knowledge and understanding of concepts based on their personal experiences. In Constructivist Classroom, students have active participation in learning and teachers play a vital role in the teaching-learning process, where he/she acts as a facilitator and encourager. In this kind of setup,

- students working in groups emphasizing collaborative and cooperative learning.
- allows learners to foster their learning abilities.
- teachers provide ample opportunities to students that encourage them to learn from their personal experiences.
- Give primacy to peer tutoring, self-assessment, group activity, and discussion.

**8. Option (4) is correct.**

**Explanation:** In the context of progressive education, the term 'equal educational opportunity' implies that all students should be provided an education which is most appropriate to them and their future life at work.

- John Dewey introduced progressive education, where students gain knowledge by engaging themselves with active hands-on learning experiences through projects, experiments, and collaboration with peers. In progressive education, a teacher ensures the holistic development of the child, so each child learns at their own pace and rate for their future life.

**9. Option (2) is correct.**

**Explanation:** In the context of language development, social interaction area was underestimated by Piaget.

- Jean Piaget, a Swiss Psychologist, proposed the Theory of Cognitive emphasising the nature and cognitive development of individual intelligence. Social interaction is not mentioned by Piaget as he believed a child needs to develop maturity mentally before language development.

**10. Option (1) is correct.**

**Explanation:** An eleven-year-old child's score on Stanford-Binet Intelligence Scale is 130. By assuming  $\mu = 100$  and  $\sigma = 15$  in a normal probability curve, the percentage of 11-year-old children this child has scored better than 98%.

- Formula:

$$Z = \frac{x - \mu}{\sigma} = \frac{130 - 100}{15} = 2$$

According to the Stanford-Binet intelligence scale index 2 of Z refers to 97.7 % which is approx 98%.

## 11. Option (1) is correct.

**Explanation:** Damage to one part of the brain affects a particular ability sparing others is observation that supports Howard Gardner's Theory of multiple intelligence.

- In the 1980s, Harvard Gardner, a psychologist proposed 'The Theory of Multiple Intelligence', which states that people aren't born with intelligence, but multiple different types of intelligence may exist in different individuals. The eight types of intelligence described by Harvard Gardner that states damaging one part of the brain affects only a particular ability.

## 12. Option (4) is correct.

**Explanation:** Teachers may use multilevel teaching to cater to different ability groups is true about ability and ability grouping.

- Multilevel teaching is a teaching process of teaching children in such a manner where the individual needs of each child are met.

## 13. Option (1) is correct.

**Explanation:** The formative assessment can sometimes be summative assessment and vice versa is true statement.

- Assessment assesses students' performances against the learning outcomes and standards set for them. Formative and summative assessment are two types of assessment. Sometimes, Formative assessment and Summative assessment can be exchanged in place of one another in a classroom to measure student understanding and progress.

## 14. Option (2) is correct.

**Explanation:** A teacher asks his/her students to draw a concept map to reflect their comprehension of a topic. He/she is conducting formative assessment.

- Formative assessment is a continuous assessment process that helps learners to achieve learning goals through various activities undertaken by teachers to give feedback to students in order to improve their performance by indicating the areas where they are lacking.

## 15. Option (2) is correct.

**Explanation:** Judging the logical consistency of a solution represents the domain 'evaluating' in the Bloom's revised taxonomy.

- Evaluation is the final level in Bloom's Taxonomy pyramid that helps a student to make an informed and final decision on a solution. Evaluation is a level where students critically examine

information, make judgments, and justify the decision taken related to the material they have learned, applied, and analyzed in the classroom.

## 16. Option (1) is correct.

**Explanation:** Teachers must believe in personal accountability for students' success in the context of dealing with disadvantaged learners.

Disadvantaged learners are those learners whose social, economic, and cultural circumstances/backgrounds are different from others. Thus, a teacher should ensure that their circumstances do not cause any hindrance in the learning process by enhancing their self-esteem.

## 17. Option (2) is correct.

**Explanation:** Stuttering problems in students can be dealt by applying prolonged speech method.

- A speech disorder, where an individual repeats the words again and again affecting his/her flow of speech, is called Stuttering, it can be dealt with prolonged (it is a fluency technique that involves stretching each speech sound slightly more than we normally would) speech technique.

## 18. Option (1) is correct.

**Explanation:** In the context of learning-disabled children, providing immediate connections, stressing collaboration, and leveraging non-learning technologies such as instant messaging, intelligent search and content management are associated with embedded learning.

- Embedded learning happens when teachers provide learning opportunities to learners by preparing various classroom activities (in fields of literacy, language, numeracy, and lifelong skills) matching individual learning needs. Such learning program is aimed at making learning-disabled children confident, motivated, and competent by experiencing quality experiences.

## 19. Option (4) is correct.

**Explanation:** An inclusive classroom is that where teachers create diverse and meaningful learning experiences for every learner.

- An inclusive classroom is an approach to learning where students are provided diverse and meaningful learning experiences to achieve their learning outcomes.

## 20. Option (2) is correct.

**Explanation:** Asking him/her to tutor the peers to channelize the energy and keep him/her busy is an appropriate assignment for a gifted student.

- Gifted children are those children who perform tasks extraordinarily

when compared with their peer group.

## 21. Option (4) is correct.

**Explanation:** Many measures have been taken at institutional level to check the dropout cases on the schools run by government agencies. There is no alternative curriculum for children who reject the compulsory curriculum offered is an institutional reason for children dropping out these schools.

- In a school, children came from varied socio-cultural and economic backgrounds. They have different learning abilities; a regular curriculum might not be suitable for all children. Therefore, an alternative curriculum is needed for learners who are not able to make progress in a general education setting.

## 22. Option (3) is correct.

**Explanation:** Learning disabilities are also present in children with average or above-average IQ.

- Learning disability is referred to as a neurological disorder that affects an individual way of receiving and processing information. A learner is expected to face learning difficulties in reading, writing, listening, and mathematical calculations which are not only caused by disability but also caused due to emotional or cultural differences.

## 23. Option (1) is correct.

**Explanation:** Problem solving is more likely to succeed in schools where a flexible curriculum is in place.

- When an institute follows a learner-centered approach and provides various opportunities such as a flexible curriculum and problem-solving skills to its learners, they learn better and succeed in different areas of life.

## 24. Option (1) is correct.

**Explanation:** Cognitive apprenticeships and instructional conceive learning as a social activity.

- Cognitive apprenticeship is a pedagogical method of involving students in practices through activities and social interactions.

Instructional conversations are a learning process where the teacher assists learners through scaffolding to perform better.

## 25. Option (3) is correct.

**Explanation:** He/she should correct errors that interfere with the general meaning and understandability, should be a right way for a teacher who intends to correct errors of his/her students as errors will help to know the:

- the gap between conceptual knowledge and procedural knowledge.
  - how much actual learning has occurred.
  - learner's understanding level through a specific learning style and pattern.
26. **Option (3) is correct.**  
**Explanation:** The skills are involved in emotional intelligence, except criticism of emotions.
- Emotional intelligence helps an individual with the ability to control, perceive and assess one's and other's emotions. Emotional Intelligences skills involved:
    - Social skills
    - Motivation
    - Adaptability
    - Awareness
    - Management
27. **Option (3) is correct.**  
**Explanation:** While appearing in an assessment Devika finds her arousal as energizing whereas Rajesh finds his arousal as discouraging. Their emotional experiences are most likely to differ with respect to the level of adaptation.
- Level of adaption means the response of an individual regarding a particular stimulus can be based on individual past experiences.
28. **Option (4) is correct.**  
**Explanation:** The Government of India has started Midday Meal Scheme for the elementary schools. Humanistic theories of motivation support this Scheme.
- Humanistic theory of motivation addresses the basic needs of an individual with effect on their action.
29. **Option (2) is correct.**  
**Explanation:** Attaching importance to the home setting of students for understanding children's behavior and using this information for building effective pedagogy is related to ecological theories of learning.
- Ecological theories of learning is a the study of the interaction between community, society, and environment influencing the development of a child.
30. **Option (2) is correct.**  
**Explanation:** Make the child sit in the most distraction-reduced area may be the best way to deal with an inattentive child in the classroom. So, as to increase child's attention span and his/her learning needs are catered.

## Mathematics and Science

31. **Option (4) is correct.**  
**Explanation:** Adding the numbers, we get  
 $0.001 + 1.01 + 0.11 = 1.121$
32. **Option (2) is correct.**  
**Explanation:** Here,  
 $30.3 \text{ million} = 303 \text{ lakh}$   
 $= 3 \text{ crore } 3 \text{ lakh}$   
 $= 30,300,000.$   
 Therefore, the number which is the same as 30.3 million is 30,300,000.
33. **Option (3) is correct.**  
**Explanation:** Given,  
 $a^3 = 1 + 7 \quad \dots(i)$   
 $3^3 = 1 + 7 + b \quad \dots(ii)$   
 $4^3 = 1 + 7 + c \quad \dots(iii)$   
 Now, solving equation (i), we get,  
 $a^3 = 1 + 7$   
 $a^3 = 8$   
 $a = 2$   
 Solving equation (ii), we get,  
 $3^3 = 1 + 7 + b$   
 $27 = 8 + b$   
 $b = 19$   
 Solving equation (iii), we get,  
 $4^3 = 1 + 7 + c$   
 $64 = 8 + c$   
 $c = 56$   
 Now adding the values  $a$ ,  $b$  and  $c$ , we get,  
 $a + b + c = 2 + 19 + 56$   
 $a + b + c = 77$   
 Therefore, the value of  $a + b + c$  is 77.
34. **Option (4) is correct.**  
**Explanation:** We will check the condition of a perfect numbers in the given options:  
 Option first, 13  
 Divisor: 1  
 Option 2: 10  
 Divisors:  $1 + 2 + 5 = 8$   
 Option third: 6  
 Divisors:  $1 + 2 + 3 = 6$   
 Therefore, the perfect number is 6.
35. **Option (4) is correct.**  
**Explanation:** Only the option, 548543241 can be expressed as in terms of the product of pairs of prime factors  $3^2 \times 37^2 \times 211^2$
36. **Option (3) is correct.**  
**Explanation:** The possible product pairs of 24 are:  
 $(1*24), (2*12), (3*8), (4*6)$   
 The sum of the given pairs are as follows:  
 $1 + 24 = 25$   
 $2 + 12 = 14$   
 $3 + 8 = 11$   
 $4 + 6 = 10$   
 The pair will smallest sum = 4, 6 which gives 10.
37. **Option (3) is correct.**  
**Explanation:** Dividing numerator and denominator by  $3^{500}$

We will get,

$$\frac{3^2 - 1 + 3^{\frac{16}{500}}}{1 + 3^{\frac{2}{500}}}$$

Here,  $3^{\frac{16}{500}}$  and  $3^{\frac{2}{500}}$  are very small and negligible, we can replace the values by 0.

Now,

$$\Rightarrow \frac{3^2 - 1}{1}$$

$$\Rightarrow 9 - 1$$

$$\Rightarrow 8$$

Hence, the value of the given expression is 8.

38. **Option (2) is correct.**

**Explanation:**

$$\text{Given, } 800880 = 8 \times 10^x + 8 \times 10^y + 8 \times 10^z$$

Simplifying the equation,

$$\Rightarrow 800880 = 800000 + 800 + 80$$

Now, expressing the equation in the power of 10

$$\Rightarrow 800880 = 800000 + 800 + 80 = 8 \times 10^5 + 8 \times 10^2 + 8 \times 10^1$$

By comparing, we get the values of  $x$ ,  $y$  and  $z$  as 5, 2 and 1.

The sum of  $x$ ,  $y$ ,  $z$  will be:

$$5 + 2 + 1 = 8$$

39. **Option (3) is correct.**

**Explanation:** Given,  $x^4 + x^2 + 1$

Factorizing the given expression, we get,

$$\Rightarrow (x^2)^2 + 2(x^2) \times 1 + 1^2 - x^2$$

$$\Rightarrow (x^2 + 1)^2 - x^2$$

$$\Rightarrow (x^2 + 1 - x)(x^2 + 1 + x)$$

Therefore, the one factor of  $x^4 + x^2 + 1$  is  $(x^2 - x + 1)$

40. **Option (3) is correct.**

**Explanation:**

Given, Scale of map = 1:10000

Forest area on map =  $10 \times 100$

As per question,

$$1 \text{ km} = 1000 \text{ m}$$

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ km} = 100000 \text{ cm}$$

$$1 \text{ unit of map} = 10000$$

Actual length of forest

$$= 10 \times 10000$$

$$= 100000 \text{ cm}$$

$$= 1 \text{ km}$$

Actual breadth of forest

$$= 100 \times 10000$$

$$= 1000000 \text{ cm}$$

$$= 10 \text{ km}$$

$$\text{Area of forest} = 1 \times 10$$

$$= 10 \text{ km}^2$$

41. **Option (4) is correct.**

**Explanation:** Let numerator be  $x$  and denominator be  $y$ ;

As per the question,

$$x + y = 91$$

$$\Rightarrow \frac{x}{91 - x} = \frac{5}{8}$$

Therefore,

$$\text{Numerator} = 35$$

$$\text{Denominator} = 91 - 35$$

$$= 56$$

Difference between numerator and denominator

$$= 56 - 35$$

$$= 21$$

42. Option (2) is correct.

**Explanation:** Let the number be  $n$ .  
 Number is doubled  $= 2n$   
 Adding  $y$  to double the number  $= 2n + y$

Now, dividing the result by 2;

$$\Rightarrow \frac{2n+y}{2}$$

$$\Rightarrow n + \left(\frac{y}{2}\right)$$

Subtracting  $n$  from the result,

$$\Rightarrow n + \left(\frac{y}{2}\right) - n$$

$$\Rightarrow \frac{y}{2}$$

43. Option (2) is correct.

**Explanation:**

Given,

$$\text{Number of faces} = 6$$

$$\text{Number of vertices} = 8$$

Using Euler's formula for polyhedron,  
 $F + V - E = 2$

Here,

$F$  is the number of faces  
 $V$  is the number of vertices  
 $E$  is the number of edges

Let the number of edges of polyhedron be  $E$ .

Then, substituting the given values in the Euler's formula, we get,

$$\Rightarrow 6 + 8 - E = 2$$

$$\Rightarrow 14 - E = 2$$

$$\Rightarrow E = 12$$

44. Option (2) is correct.

**Explanation:** Solving the given expression we get,

$$1957 - a9 = 18b8$$

$$\Rightarrow 1957 - 18b8 = a9$$

Because the number 7 at unit digit is less than the number 8, the number 1 was borrowed from the number 5. The result shows that 1 was also borrowed to the number 5 from the number 9 in the hundredth position.

$$\Rightarrow 14 - b = a$$

$$\Rightarrow a + b = 14$$

45. Option (3) is correct.

**Explanation:**

Given,

$$\text{Number of cubes} = 42$$

$$\text{Side of cube} = 1$$

Now, the number of cubes in base of cuboid

$$= 18 - 4 = 14$$

$$\text{Height of cuboid} = \frac{42}{14} \times 1$$

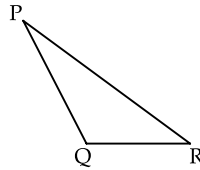
$$= 3$$

Therefore, the height of the cuboid is 3 cm.

46. Option (2) is correct.

**Explanation:**

Given,  $PQ = 4$  cm;  $PR = 6$  cm;  $QR = 3$  cm



Using sides of triangle,  $PR$  is longest side of given triangle, largest angle is  $Q$ .

Similarly, smallest side is  $QR$ , smallest angle is  $P$ .

Therefore, angle  $Q$  is greater than angle  $R$ .

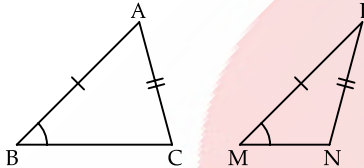
47. Option (1) is correct.

**Explanation:** In the given two triangles,

$$AB = LM,$$

$$AC = LN$$

$$\angle B = \angle M$$



These are not congruent angles because two sides are equal but corresponding angle is not equal.

48. Option (3) is correct.

**Explanation:** Length of one of parallel sides = 35 m

Let length of other parallel side =  $x$

$$\text{Area of Trapezium} = \frac{1}{2}(a+b) \times d$$

$$720 = \frac{1}{2}(35+x) \times 20$$

$$35 + x = 72$$

$$x = 37 \text{ m}$$

49. Option (1) is correct.

**Explanation:** Given,

Cost price of 10 candles

= Selling price of 8 candles

Let the cost price be  $x$  and the selling price be  $y$ .

Then,

$$\Rightarrow 10 \times x = 8 \times y$$

$$\Rightarrow \frac{x}{y} = \frac{5}{4}$$

Clearly, CP ( $x$ ) is greater than SP ( $y$ ), which means gain.

$$\text{Gain} = \left[ \frac{(5-4)}{5} \right] \times 100$$

$$= \left( \frac{1}{5} \right) \times 100$$

$$= 20\%$$

50. Option (2) is correct.

**Explanation:**

Given: 6, 7, 7, 8, 8, 8, 9, 10

The most repeated term in the data is 8 (3 times)

Therefore,

$$\text{Mode} = 8$$

$$\text{Median} = \left( \frac{4^{\text{th}} \text{ term} + 5^{\text{th}} \text{ term}}{2} \right)$$

$$= \left( \frac{8+8}{2} \right)$$

$$= 8$$

$$\text{Mean} = \left( \frac{8+8}{2} \right)$$

$$= 8$$

51. Option (1) is correct.

**Explanation:** Effective communication in the classroom is necessary for positive environment and encouraging teamwork. Listening and speaking skills of children will be developed when teachers asks questions. This fosters healthy behavior in the classroom.

52. Option (2) is correct.

**Explanation:** Interdisciplinary approach means combination of multiple disciplines in one activity. This approach in teaching helps students to develop connections and correlations between the subjects. This is the enriching learning experience. Teacher telling facts and relating it to mathematics would help students to think problems as well as their solutions from multiple perspectives.

53. Option (1) is correct.

**Explanation:** The two main concepts of Jean Piaget theory is assimilation and accommodation. Process of taking in new information in to previous schema is assimilation and changing of existing schemas is known as accommodation. So introduction of a new concept like equation is assimilation and extension of concept like change in equation is accommodation.

54. Option (3) is correct.

**Explanation:** Continuous assessment of learners' work not only facilitates their learning of Mathematics but also enhances their confidence in the application of learning in Mathematics. This view changes the focus of assessment from summative evaluation, where learners are evaluated at the end of the unit and provided grades, to the formative evaluation where learners are evaluated in the pursuit of learning.

55. Option (3) is correct.

**Explanation:** As per the NCF, 2005, the main focus of mathematics curriculum is solving. It is necessary for developing numeracy related skills and capabilities. Problem-solving is a skill which involves critical thinking and decision-making.

56. Option (4) is correct.

**Explanation:** Creation means compiling information and combining



elements in a new pattern or proposing alternative solutions. In a creation process, learners combine ideas and facts to create original work. Making a PowerPoint presentation is a creation work that would vary from each individual.

57. **Option (1) is correct.**

**Explanation:** Teacher A is emphasizing instrumental understanding that is a step by step approach which can be manipulated. Teacher B is emphasizing relational understanding that focuses on using of the concept and then knowing the 'why aspect'.

58. **Option (2) is correct.**

**Explanation:** The given activity can be used as a formative assessment task for teachers to evaluate their students' understanding of concepts such as finding dimensions, performing calculations and using perimeter and area formulas. After the teacher has explained the concept, they can assess the students' understanding of related formulas and concepts. The goal of formative assessments is to monitor students' progress, determine if learning objectives have been met and provide feedback on the teaching-learning process.

59. **Option (4) is correct.**

**Explanation:** Understanding square roots is critical because it serves as a foundation for other mathematical concepts. Learning mathematics is analogous to building a house, with the lower blocks serving as the foundation for the rest. A problem, such as finding the number of rows and plants when 2025 plants are to be planted in a garden so that each row contains the same number of plants as the number of rows, can be given to students to assess their ability to apply the concept of square roots in real-life situations. Students who understand the concept of square roots will have no trouble solving this problem. As a result, this problem can be used to assess students' ability to apply square root concepts in real-world situations.

60. **Option (4) is correct.**

**Explanation:** The student in question understands units of measurement, unit conversion and fractions. However, they have overlooked the fact that ratios do not have units. A unit of measurement is a specific quantity such as metres, centimetres, millimetres, or kilometres. Conversion of units entails converting one unit to another, such as metres to centimetres. A fraction denotes a portion of a whole. The student understands all of these concepts, but they have not grasped the concept that ratios do not have units.

Ratios are expressed as a numerator over a denominator, such as  $5/6$ . As a result, the correct answer is 4.

61. **Option (2) is correct.**

**Explanation:** The process of Human excretory system is as follows:

- Process of filtration of blood by blood capillaries
- Useful and harmful substance is present in blood reaches kidneys
- Useful substances absorb waste.
- Urine from kidney goes to bladder through tube like passage called ureters.
- It is then passed out through urinary opening at end of muscular tube called urethra.

62. **Option (4) is correct.**

**Explanation:** Pseudopodia is a temporary cytoplasm-filled projection of a eukaryotic cell membrane or a unicellular protist. It is helpful in locomotion, engulfment and ingestion.

63. **Option (3) is correct.**

**Explanation:** Bedbugs, leeches, lice, cuscuta are examples of parasites. They are dependent on another organisms or plants for nutrition. Some parasites like lice and bedbugs feed themselves on blood of other animals.

64. **Option (1) is correct.**

**Explanation:** Alexander Fleming – Penicillin  
Edward Jenner – Smallpox vaccine  
Louis Pasteur – Fermentation  
Robert Koch – Anthrax Bacterium

65. **Option (4) is correct.**

**Explanation:** Biosphere reserves are protected lands for conserving wildlife, animal and plant resources. It maintains sustainable development in the area. Not only the plants and animals but also humans inhabiting these areas are protected.

66. **Option (1) is correct.**

**Explanation:** Eukaryotic cells have a well-organized nucleus with nuclear membrane. They can be either unicellular or multicellular.

67. **Option (1) is correct.**

**Explanation:** Correct position from top to bottom is pituitary gland, thyroid gland, adrenal gland and pancreas. The pituitary gland is located below the brain. The thyroid gland is located in front of the neck. An adrenal gland is located on top of each kidney. The pancreas is located across the back of the abdomen, behind the stomach.

68. **Option (4) is correct.**

**Explanation:** Pressure is physical quantity which is a force acting per unit of area. The liquid exerts pressure on the walls of its container. Equal pressure is applied at equal height in all directions by the liquid. As we go toward depth the more liquid

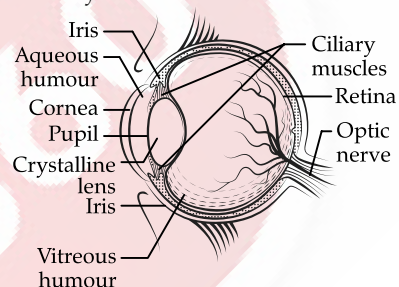
is above to exert the pressure. So, pressure increases as we go in depth. The pressure at A will be less than B, as less amount of liquid is present above it to exert the pressure.

69. **Option (4) is correct.**

**Explanation:** The laws of reflection govern how light rays behave when they are reflected from a flat, polished surface. According to these laws, the angle of incidence of a light ray is always equal to the angle of reflection. This means that the angle at which the light strikes the surface (the angle of incidence) will be the same as the angle at which it bounces off (the angle of reflection). Furthermore, the incident ray, reflected ray and normal line (perpendicular to the surface) will all lie on the same plane. These laws apply to all types of surfaces and the angles are measured from the point of Incidence.

70. **Option (4) is correct.**

**Explanation:** Following are the labels of eye:



71. **Option (3) is correct.**

**Explanation:** Human eye which consists of convex lens give impression of image that does not vanish immediately. It persists there for  $1/16$ th of a second. The nearest option is  $1/15$ th of a second.

72. **Option (4) is correct.**

**Explanation:** For germination of seeds, water is important. Nutrients are transported to part of the plant through water only in dissolved form. Crops are protected from frost and hot air currents with the help of water.

73. **Option (2) is correct.**

**Explanation:** Chromosomes are not located in the nucleolus whereas genes are located in chromosomes. Unicellular organisms reproduce such as amoeba respire by process of cellular respiration. Cell membranes controls entry and exit of materials from cells.

74. **Option (4) is correct.**

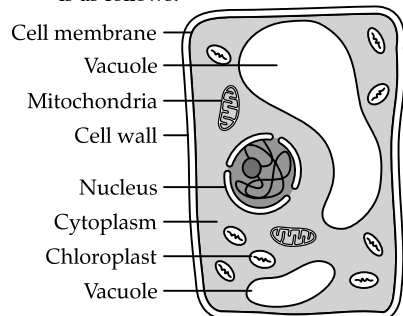
**Explanation:** Ultrasonic sounds have frequency greater than 20000 Hz. We cannot hear ultrasonic sound because this is above the normal hearing range for humans.

75. **Option (2) is correct.**

**Explanation:** The solid block exerts a force on the table which is equal to weight of block. The pressure will differ as the surface area in contact with table is different in different cases.

76. **Option (2) is correct.**

**Explanation:** The labels of animal cell is as follows:



77. **Option (3) is correct.**

**Explanation:**

Odometer reading at 8 am = 36540

Odometer reading at 10 am = 36666

Difference = 36666 - 36540

= 126 km

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{126}{2}$$

$$= 63 \text{ km/hr}$$

Converting into meters/second, by multiplying  $\frac{1000}{3600}$  second

$$\begin{aligned} \text{That is, } v &= 63 \times \frac{1000}{3600} \\ &= 17.5 \end{aligned}$$

78. **Option (2) is correct.**

**Explanation:** Turmeric is natural indicator and thus remains yellow in acidic solution and turns red in basic solution. Turmeric becomes red in sodium hydroxide solution because that is a base.

79. **Option (3) is correct.**

**Explanation:** The food stored in stomach first goes to small intestine in which blood vessel absorb food. Villi, a finger like projection is present which have thin walls and covered with capillaries, this ensures maximum absorption.

80. **Option (1) is correct.**

**Explanation:** When testing with iodine solution, boiled and mashed potato and slice of bread changes color to blue and black. This is because these items contain starch which is a carbohydrate.

81. **Option (2) is correct.**

**Explanation:** Spring balance is used for measuring the mass of an object. The correct process is:

1. Record the least count of spring balance

2. Note 0 error

3. Note position of pointer on graduated scale

4. Calculate the actual reading.

82. **Option (4) is correct.**

**Explanation:** Science is a classified knowledge gained from systematic study. Competition is not the motive for learning of Science. Knowing the facts and principle of Science is necessary. This helps in cognitive development of child.

83. **Option (2) is correct.**

**Explanation:** Role play is student centered method of teaching. This method helps in training students' comprehensive abilities, such as vocabulary, on-site reaction speed and communication. They can explore realistic situation by this method.

84. **Option (4) is correct.**

**Explanation:** The best suited criteria here is project work. Projects start with asking questions and then followed by research and investigation. When hypothesis is framed, thinking of experimentation is started. Then, observations are recorded and analysed.

85. **Option (1) is correct.**

**Explanation:** Learning based on life outside school relates going beyond the textbooks. It connects children's understanding with their own experiences.

86. **Option (4) is correct.**

**Explanation:** Demonstrating is the best way to learn through observation which can include chart or models. It is a great way to call for active participation from the students.

87. **Option (2) is correct.**

**Explanation:** The National Curriculum Framework (NCF) of 2005 recommends that NCERT Science textbooks provide learners with more opportunities to explore various aspects of science and connect them to their everyday experiences. Rather than just simple hands-on activities, textbooks should emphasise experimentation and testing. Furthermore, the NCF discourages rote learning and suggests that textbooks should present challenging situations that encourage active engagement and knowledge construction rather than simply providing factual information. Based on these considerations, it is possible to conclude that options (A) and (C) together represent the correct statements.

88. **Option (3) is correct.**

**Explanation:** Encouraging the students to ask questions help to maintain active participation and student confidence in the class. It

is necessary for retaining focus and attention in the class. Also, only teacher speaking in the class is monotonous.

89. **Option (2) is correct.**

**Explanation:** The correct steps for scientific method are as follows:

1. Identification of problem
2. Review of literature
3. Formulating of hypothesis
4. Identifying, manipulating and controlling variables
5. Formulating a research design
6. Constructing device for observation and measurement
7. Sample selection and data collection 'data analysis and interpretation
8. Hypothesis testing
9. Drawing conclusion

90. **Option (4) is correct.**

**Explanation:** Hands on activities and projects helps in developing psychomotor skills of students. These may include observation, drawing, designing etc. These are best for enriched learning experiences in the classroom.

### Language: English

91. **Option (2) is correct.**

**Explanation:** "Have you ever wondered what the qualities of a really professional teacher are? I know that all teachers want their students to like them, but being liked isn't the be-all and, end-all really, is it?" From the above lines derived from the passage, we can conclude that the expression "isn't the be-all and end-all." is an assumption that pertains to the teachers' point of view.

92. **Option (3) is correct.**

**Explanation:** Fall back position is being caught off guard or being ready for unexpected developments. A teacher should be well equipped to handle situations which she/ he had not planned. Being ready for such unexpected developments in the classroom should also be part of the planning.

93. **Option (4) is correct.**

**Explanation:** "A professional teacher needs to be confident without being arrogant. Nobody can expect to have all the answers, so, if a student asks a real stinker, the professional teacher should be able to admit defeat but offer to find out more for the student. And they must carry that promise out."

From the above lines derived from the passage, we can conclude that here, able to admit defeat implies that teachers should be confident enough to own up their 'unpreparedness'.

94. **Option (3) is correct.**

**Explanation:** "When the teacher enters the classroom, she/he should

- have all the required materials and the lesson-plan ready. And, in orchestrating the class, the teacher must give everyone their chance to contribute and should be flexible enough to modify lessons if they are obviously not going to plan.”  
From the above lines derived from the passage, we can conclude that here, orchestrating the class suggests acknowledging the individual differences in the process of achievement.
95. **Option (2) is correct.**  
**Explanation:** “A professional teacher needs to be confident without being arrogant. Nobody can expect to have all the answers, so, if a student asks a real stinker, the professional teacher should be able to defeat but offer to find out more for the student.”  
From the above lines derived from the passage, we can conclude that here, ... asks a real stinker... suggests that students can be better informed than their teachers.
96. **Option (1) is correct.**  
**Explanation:** A word that can best replace the word entitles in the passage is warrants.
97. **Option (3) is correct.**  
**Explanation:** “So, yes, professionalism cuts both ways: in the standards we demand of teachers and the framework we have for giving them support.”  
From the above lines derived from the passage, we can conclude that the writer’s view that professionalism cuts both ways means trustees and their employees owe each other support.
98. **Option (1) is correct.**  
**Explanation:** A word from the passage that is the antonym of the word unshakable, is vulnerable.
99. **Option (1) is correct.**  
**Explanation:** “So, yes, professionalism cuts both ways: in the standards we demand of teachers and the framework we have for giving them support.”  
From the above lines derived from the passage, we can conclude that here, framework refers to the overall school curriculum.
100. **Option (2) is correct.**  
**Explanation:** “To stalk; to plunge; to harvest; the denial-squawk of dying’s struggle; these are bit a day’s rebuke to hunger for the hawk, who gazed accord with Death admits no show of shock.”  
From the above lines derived from the poem, we can conclude that the denial-squawk refers to the helpless cry of its prey, to avert death.
101. **Option (1) is correct.**  
**Explanation:** “To stalk; to plunge; to harvest; the denial-squawk of dying’s struggle; these are bit a day’s rebuke to hunger for the hawk, who gazed accord with Death admits no show of shock.”  
From the above lines derived from the poem, we can conclude that the hawk, a day’s rebuke to hunger suggests that the bird bows to hunger.
102. **Option (1) is correct.**  
**Explanation:** “rebuke to hunger for the hawk, who gazed accord with Death admits no show of shock.”  
From the above lines derived from the poem, we can conclude that here, glazed accord with Death means that the prey meets death willingly.
103. **Option (1) is correct.**  
**Explanation:** The word that is closest in meaning to the word dappled in the poem is spotted.
104. **Option (4) is correct.**  
**Explanation:** “But when the spotted hawk’s last flight is flown, He too becomes a novice, fear-struck by the certain plummet once these feathers fold.”  
From the above lines derived from the poem, we can conclude that here, he too becomes a novice suggests that the hawk also meets death, as weak and helpless as its prey.
105. **Option (1) is correct.**  
**Explanation:** “Death’s users know it is not theirs to own, ...”  
The above lines exemplifies the use of personification as a poetic device.
106. **Option (2) is correct.**  
**Explanation:** Providing students the opportunity to voice their opinions and to problem solve in the target language can encourage second language acquisition.  
■ The theory of Second Language Acquisition was proposed by Stephen Krashen. The theory states that a learner acquires the ability to use both, first language and second language, fluently and accurately with equal strength. Opportunities are provided to learners, where they can voice their opinions and solve problems in the target language.
107. **Option (3) is correct.**  
**Explanation:** Generally speaking, the first language is marked by the accent and regional expressions of the area where students grow up. This is so because, the first language is acquired by children by observing and repeating the words with similar accents and regional expressions from their native environment.
108. **Option (3) is correct.**  
**Explanation:** Language learning is better achieved if what students learn is functional in terms of their life values and goals.
- Language learning means acquiring the practical knowledge (speaking, understanding, and writing) of a language. A learner will acquire language only if he/she is motivated to learn. Moreover, the performance of a student in language learning can only be enhanced with the help of motivation.
109. **Option (4) is correct.**  
**Explanation:** An activity asks students to determine from a list of possible answers with a title what kind of information will appear in an input text before an audio recording is played. Here students are actively predicting the content of the input. In this activity students listening and comprehending skills are expanding as their ability to accurately identify the sounds and text information is interpreted to complete the task.  
In this activity, the student’s listening and comprehending skills are enhanced as they are able to accurately identify the sound played in the recording along with the interpretation of the text information given in the input box.
110. **Option (1) is correct.**  
**Explanation:** A speaking activity can be made more purposeful by insisting on correct structure and pronunciation.  
Communication or speaking skill activities should also focus on the structure and pronunciation.  
Pronunciation of words is the first thing noticed when someone speaks. Having a great vocabulary is of no use when those words can’t be pronounced well.  
Giving structure to the speech will help to make one more engaging and powerful as a speaker.
111. **Option (4) is correct.**  
**Explanation:** In the communicative classroom, learners acquire the grammar of a second language to understand how to make meaning and become more proficient in speaking and writing. It develops learners’ competence to reproduce language in speaking and writing.
112. **Option (1) is correct.**  
**Explanation:** Structures in second language are better assimilated in a pedagogical practice through meaningful interaction with interesting content.  
■ Structures in language refer to the pattern of sentences that learners learn to master over skills of language learning. This involves  
■ Meaningful interactions developed with communication.  
■ Interesting content that enhances their cognitive and analytical abilities.

## 113. Option (3) is correct.

**Explanation:** Error correction in students' written work is most effective when the teacher points out major errors using symbols and students self-correct.

Errors give teachers an insight into the student's thinking and also helps them to cater to individual needs of the student. Marking of the errors in the written material of the students will make them aware of their mistakes. They will also be able to analyze the mistake to make necessary corrections. This will help in concept clarity, create a positive impact on the child and will provide him/her with motivation and enhanced self-confidence even after making mistakes.

## 114. Option (2) is correct.

**Explanation:** Students always find it difficult to listen to and understand a second language presentation inside or outside their class. This can be helped by practice by using the second language more. With the help of practicing the activity repeatedly, the learner will be able to learn and assimilate the second language easily.

## 115. Option (3) is correct.

**Explanation:** When they encounter unfamiliar words during a reading activity, students should be trained to use information in its context to correctly guess its rough area of meaning while processing the meaning of the whole text. This will help students to develop reading skills by enhancing their vocabulary and ultimately understanding the text easily.

## 116. Option (1) is correct.

**Explanation:** The question that assesses students' ability to infer the meaning of the text is "Why did Mohan change his mind despite his parents' advice?"

- The above question will help a teacher to assess the student's ability to infer the meaning of the provided text in an open-ended question form.

## 117. Option (4) is correct.

**Explanation:** While assessing a report of a school programme for a class journal, the following are the main criteria are relevance, logical organization of content, a direct style.

- A report is a detailed analysis of something or someone. It is a process of systematically organizing the content and presenting information in a clear, concise, and objective manner. The text written in the report should be relevant and in a direct style.

## 118. Option (2) is correct.

**Explanation:** While learning a language, the computer-aided

instruction provides opportunities for independent study, a wide range of reference material and immediate feedback about achievement.

- Computer-aided instruction means educating oneself through computers to make learning more interesting and meaningful. This type of instruction
  - processes the information according to the needs of learners.
  - offers individualized learning experiences to learners.
  - Provides learning resources based on individual needs.

## 119. Option (1) is correct.

**Explanation:** A dual-language classroom consisting of students speaking a native language and the target language is beneficial because it motivates target language speaking students learn another language and vice versa.

- Dual-language classroom is a type of classroom where learning takes place using two languages to develop language proficiency.

## 120. Option (2) is correct.

**Explanation:** A student has difficulty in applying the learned knowledge, for example, in word problems, the student also fails to translate sentences into equations or identify the variables. A possible solution to this problem could be giving carefully designed assignment-simpler-simple-complex. When the teacher accesses the errors done by the learner, he/she will emphasize correcting the errors, so that learning takes place.

### Language: Hindi

## 121. विकल्प (4) उचित है।

**व्याख्या—**जिनमें अहं और स्व-हित का भाव होता है, वे प्रवृत्तियाँ नकारात्मक होती हैं।

**मुख्य बिन्दु—**

- (i) समूची स्वार्थी व अहं-प्रेरित प्रवृत्तियाँ नकारात्मक हैं, ऐसे कर्मों में ऊँचे उद्देश्य नहीं होते।
- (ii) उनमें लोक-संग्रह नहीं होता।
- (iii) उनमें भव्य आदर्श नहीं होते।

## 122. विकल्प (2) उचित है।

**व्याख्या—**जो अपनी पसंद-नापसंद के आधार पर किए जाते हैं, वे कार्य हानि की ओर ले जाते हैं।

**मुख्य बिन्दु—**

- (i) लेखक बताता है कि भले ही आप अपने सामने एक ऊँचा आदर्श रखें, तो भी आपके कर्म यदि आपके मन के चाहे या अनचाहे से प्रेरित हैं तो वे ह्रासमान ही होंगे, क्योंकि पसंद-नापसंद से किए जाते कार्य वासनाओं को बढ़ाए बिना नहीं रहते।

## 123. विकल्प (3) उचित है।

**व्याख्या—**जो बुद्धि और विवेक-शक्ति के आधार पर किए जाते हैं उन कार्यों का समर्थन इस गद्यांश में किया गया है।

**मुख्य बिन्दु—**

- (i) कोई काम महज इस आधार पर नहीं करना चाहिए कि वह आपको पसंद है।
- (ii) उसी तरह कोई काम करने में महज इस आधार पर नहीं कतराना चाहिए कि वह काम आपका मनचाहा नहीं है।
- (iii) कार्य का निर्णय बुद्धि-विवेक के आधार पर होना चाहिए, मनचली भावनाओं, तुनकमिजाजी के आधार पर कतई नहीं।

## 124. विकल्प (4) उचित है।

**व्याख्या—**रुचि-अरुचि को इस गद्यांश में शत्रु कहा गया है। लेखक ने बताया है कि इस एक बात को हमेशा ध्यान रखिए कि पसंद और नापसंद आपके सबसे बड़े शत्रु हैं। आप इन्हें पहचानते तक नहीं। उल्टे आप इन्हें पाल-पोसकर दुलारते हैं।

## 125. विकल्प (1) उचित है।

**व्याख्या—**लेखक ने इन शत्रुओं से निपटने का विश्लेषण मार्ग सुझाया है।

**मुख्य बिन्दु—**

- (i) पसंद और नापसंद सबसे बड़े शत्रु हैं।
- (ii) हम इन्हें पहचानते तक नहीं बल्कि उल्टा इन्हें पाल-पोसकर दुलारते हैं।
- (iii) वे हर क्षण हानि व ह्रास करने पर ही तुले हैं।
- (iv) इनसे निपटने का व्यावहारिक मार्ग यह है कि रुचि और अरुचि का विश्लेषण किया जाए।

## 126. विकल्प (2) उचित है।

**व्याख्या—**'नकारात्मक' का विलोम शब्द सकारात्मक है।

**विलोम शब्द—**

- (i) इसे विपरीतार्थक शब्द भी कहते हैं।
- (ii) जिन शब्दों के अपने निश्चित अर्थ होते हैं, उन अर्थों के विपरीत अर्थ देने वाले शब्दों को विलोम शब्द कहते हैं।

## 127. विकल्प (4) उचित है।

**व्याख्या—**"वे तो हर क्षण आपकी हानि व ह्रास करने पर ही तुले हैं।" वाक्य में 'वे' सर्वनाम पसंद-नापसंद के लिए प्रयुक्त हुआ है।

**सर्वनाम—**

- (i) जिन शब्दों का प्रयोग संज्ञा अर्थात् किसी वस्तु, व्यक्ति, स्थान इत्यादि के नामों के स्थान पर किया जाता है, उन्हें सर्वनाम कहते हैं।
- (ii) उदाहरण के लिए—मैं, तुम, आप, यह, वे इत्यादि।

## 128. विकल्प (2) उचित है।

**व्याख्या—**हाजिर शब्द में 'ना' उपसर्ग का प्रयोग नहीं किया जा सकता है।

- उपसर्ग—**
- (i) ऐसे शब्दांश जो किसी शब्द के पूर्व जुड़कर उसके अर्थ में परिवर्तन कर देते हैं उन्हें उपसर्ग कहते हैं।
- 'ना' उपसर्ग के प्रयोग से बने शब्द—**
- (i) नाकाबिल  
(ii) नापसंद  
(iii) नावाकिक
- 129. विकल्प (1) उचित है।**  
**व्याख्या—**विश्लेषण का विलोम संश्लेषण है।  
**विलोम शब्द—**
- (i) जिन शब्दों के अपने निश्चित अर्थ होते हैं, उन अर्थों के विपरीत अर्थ देने वाले शब्दों को विलोम शब्द कहते हैं।  
(ii) इसे विपरीतार्थक शब्द भी कहते हैं।
- 130. विकल्प (3) उचित है।**  
**व्याख्या—**जो खेतों-खलिहानों, कारखानों में काम करती है, काव्य में उस जनता की ओर संकेत किया गया है।
- 131. विकल्प (1) उचित है।**  
**व्याख्या—**"समय के रथ का घर्घर-नाद सुनो"—पंक्ति का आशय है—अब समय बदल रहा है। अर्थात् जनता अब सजग हो गई है और अपने हक के लिए माँग करेगी क्योंकि लोकतंत्र के कारण शासन व्यवस्था में पारदर्शिता आई है।
- 132. विकल्प (4) उचित है।**  
**व्याख्या—**"सिंहासन खाली करो कि जनता आती है।" पंक्ति का भाव है—राजतंत्र के विरुद्ध लोकतंत्र का स्वागत। लोकतन्त्र प्रणाली के कारण अब शासन व्यवस्था सुदृढ़ हो गई है तथा राजतंत्र के विरुद्ध जनता आवाज उठाने में सक्षम है।
- 133. विकल्प (2) उचित है।**  
**व्याख्या—**सामान्य जनता ने अब तक बहुत कष्ट सहते हैं— इस भाव को व्यक्त करने वाली पंक्ति है—"जाड़े-पाले की कसक सदा सहने वाली।" अर्थात् सामान्य जनता को राजतंत्र व्यवस्था में बहुत दबाया गया लेकिन अब लोकतंत्र व्यवस्था आने की वजह से दुख को चुपचाप बर्दाश्त करने वाली जनता मजबूर नहीं रही है।
- 134. विकल्प (3) उचित है।**  
**व्याख्या—**'साँप' शोषकों की ओर संकेत करता है अर्थात् साँप उन व्यक्तियों को कहा गया है जो गरीब जनता का निरन्तर शोषण करते हैं तथा उन्हें गरीबी का जीवन व्यतीत करने के लिए विवश करते हैं।
- 135. विकल्प (4) उचित है।**  
**व्याख्या—**'सुगबुग उठना' का अर्थ अपने हक के लिए प्रयत्नशील होना है। पहले जनता का शोषण किया गया लेकिन अब जनता अपने अधिकारों के लिए सजग हो गई है। अब गरीब जनता अपनी मजबूरी का फायदा नहीं उठाने देगी।
- 136. विकल्प (2) उचित है।**  
**व्याख्या—**उच्च प्राथमिक स्तर पर भाषा-शिक्षण का सर्वोपरि उद्देश्य है—निजी अनुभवों के आधार पर भाषा का सृजनशील इस्तेमाल।

- उद्देश्य—**
- (i) भाषा के सौन्दर्य को समझने की क्षमता का विकास।  
(ii) मुहावरों, लोकोक्तियों और कहावतों का सुचित प्रयोग करने की प्रवृत्ति का विकास।  
(iii) भाषा की गहन व विस्तृत जानकारी देना।
- 137. विकल्प (3) उचित है।**  
**व्याख्या—**सुनी, पढ़ी और समझी हुई भाषा को सहज और स्वाभाविक लेखन द्वारा अभिव्यक्त करने की क्षमता का विकास करने में सुनी, देखी, पढ़ी घटना को अपने शब्दों में लिखित रूप में अभिव्यक्त करना सहायक है।
- 138. विकल्प (4) उचित है।**  
**व्याख्या—**भाषा के सन्दर्भ में स्कूली जीवन का यह उच्च प्राथमिक चरण सौन्दर्य बोध, साहित्य बोध और सामाजिक-राजनीतिक बोध के विकास की दृष्टि से अत्यन्त महत्वपूर्ण है।  
**मुख्य बिन्दु—**
- (i) भाषा का प्रयोग बच्चे सफल रूप से कर सकेंगे।  
(ii) साहित्य की विविध विधाओं से परिचित हो सकेंगे।  
(iii) सामाजिक तथा राजनीतिक परिवेश से अवगत हो सकेंगे।
- 139. विकल्प (2) उचित है।**  
**व्याख्या—**उच्च प्राथमिक स्तर पर व्याकरण-शिक्षण का उद्देश्य भाषा की नियमबद्ध प्रकृति को समझने और उसका विश्लेषण करने में सहायक होगा।  
**व्याकरण शिक्षण के उद्देश्य—**
- (i) व्याकरण के द्वारा छात्रों में रचनात्मक एवं सृजनात्मक प्रवृत्ति का विकास करना।  
(ii) शुद्ध भाषा का प्रयोग सिखाना।  
(iii) भाषा से सम्बन्धित नियमों का ज्ञान प्रदान करना।  
(iv) भाषा को वैज्ञानिक दृष्टिकोण से देखने में छात्रों को प्रवीण बनाना।
- 140. विकल्प (3) उचित है।**  
**व्याख्या—**उच्च प्राथमिक स्तर पर हिन्दी भाषा-विकास के लिए मुहावरों के अर्थ लिखकर वाक्य बनाना गतिविधि उपयोगी नहीं हो सकती।  
**उच्च प्राथमिक स्तर पर हिन्दी भाषा-विकास के लिए उपयोगी गतिविधियाँ—**
- (i) पढ़ी गई कहानियों का समूह में नाट्य-रूपांतरण।  
(ii) विज्ञापनों, पोस्टरों, साइनबोर्ड और भाषा के अन्य उपयोगों का विश्लेषण करना।  
(iii) सूचना, डायरी-लेखन, विज्ञापन लेखन आदि कार्य करवाना।
- 141. विकल्प (2) उचित है।**  
**व्याख्या—**उच्च प्राथमिक स्तर पर व्याकरण-शिक्षण की सर्वाधिक उचित विधि आगमन विधि है।

**आगमन विधि—**

- (i) यह विधि ज्ञान को स्थायी और उपयोगी बनाती है।  
(ii) यह विधि छात्रों को स्वयं कार्य करने के लिए प्रेरित करती है।  
(iii) छात्र नियम, सूत्र एवं सम्बन्ध को ज्ञात करने के लिए आधारभूत सिद्धान्तों से परिचित रहते हैं।  
(iv) यह विधि छोटी कक्षाओं के लिए उपयोगी है।
- 142. विकल्प (2) उचित है।**  
**व्याख्या—**बच्चों का भाषाई विकास सर्वाधिक रूप से निर्भर करता है— समृद्ध भाषा-परिवेश पर।  
**भाषाई विकास—**
- (i) यह विकास मानव जीवन में बहुत पहले आरम्भ हो जाता है।  
(ii) यह एक प्रक्रिया है। इसके माध्यम से छात्र भाषण के माध्यम से समझने और संवाद करने की क्षमता प्राप्त करते हैं।  
(iii) बच्चे पढ़ने और लिखने से पहले भाषा को समझना सीखते हैं।
- 143. विकल्प (1) उचित है।**  
**व्याख्या—**उच्च प्राथमिक स्तर पर यह जरूरी है कि बच्चे समाचार-पत्र में छपी किसी खबर, लेख या कही गई बात का निहितार्थ समझ सकें क्योंकि उस समय तक भाषा का काफी विकास हो चुका होता है।
- 144. विकल्प (4) उचित है।**  
**व्याख्या—**भाषा सीखने का अर्थ उस भाषा की संस्कृति सीखना भी है क्योंकि भाषा किसी भी संस्कृति का अभिन्न हिस्सा होती है। व्यक्ति एक सामाजिक प्राणी है। समाज में रहकर ही उसका भाषिक विकास होता है।
- 145. विकल्प (2) उचित है।**  
**व्याख्या—**कक्षा आठ के बच्चों के लिए साहित्य का चयन करते समय आपके लिए यह जानना सर्वाधिक जरूरी है— बच्चों की मनोवैज्ञानिक विशेषताएँ और भाषा-प्रयोग की क्षमता।  
**मुख्य बिन्दु—**
- (i) भाषा को पहचानने में सहायक  
(ii) सृजनात्मक एवं रचनात्मक विकास में सहायक  
(iii) व्याकरण को पहचानने में भी सहायक
- 146. विकल्प (4) उचित है।**  
**व्याख्या—**नाटक, सिनेमा, परिचर्चा, वाद-विवाद आदि बच्चों की स्वतंत्र, व स्वाभाविक, प्रभावी एवं संस्कृतनिष्ठ प्रतिक्रिया व्यक्त करने की क्षमता का विकास करने में मदद करते हैं।
- 147. विकल्प (4) उचित है।**  
**व्याख्या—**हमारे अनुभवों को आकार देने में भाषा की महत्वपूर्ण भूमिका होती है। इसका शैक्षिक निहितार्थ यह है कि भाषा की कक्षा में विविध सन्दर्भों का अनुभव करने, विविध अनुभवों से स्वयं को जोड़ने के अवसर दिए जाएँ।

148. विकल्प (2) उचित है।

**व्याख्या**—मुदिता आठवीं कक्षा में हिन्दी भाषा पढ़ाती हैं (क्योंकि यहाँ सर्वनाम के स्थान पर मुदिता के लिए 'उन्हें' शब्द का प्रयोग हो रहा है)। कविता के भाव के बारे में बातचीत करते समय आप उन्हें इस बात के प्रति सचेत रहने की सलाह देंगे—

(i) कविता का एक निश्चित भाव, अर्थ नहीं हो सकता।

(ii) कविता भावाभिव्यक्ति का माध्यम है।

(iii) कविता में लयात्मकता होती है।

149. विकल्प (2) उचित है।

**व्याख्या**—हिन्दी भाषा का आकलन करते समय 'पोर्टफोलियो' बच्चों के बारे में यह बताता है कि क्रमशः उनकी प्रगति किस प्रकार की हो रही है?

150. विकल्प (4) उचित है।

**व्याख्या**—एकांकी साहित्यिक विधा को पढ़ाते समय हम सस्वर पठन पर अनिवार्यतः बल देंगे।

**सस्वर पठन के उद्देश्य**—

(i) शुद्ध उच्चारण के योग्य बनाना।

(ii) लय और गति के बारे में बताना।

(iii) भावों को ग्रहण करने की क्षमता विकसित करना।