

CTET Solved Paper

Paper-2
20th December 2021

Time: 2 hours 30 mins.

Total Marks: 150

Child Development and Pedagogy

1. The nature of relationship between development and learning is viewed by Lev Vygotsky as having which of the following characteristics?
 - (1) It is linear in nature
 - (2) The relationship is static in nature
 - (3) Learning often precedes development
 - (4) Development often precedes learning
2. The developmental theorists who view process of development as having substantial plasticity throughout life are likely to emphasize the importance of :
 - (1) Heredity
 - (2) Environment and experience
 - (3) Domain specific intelligence
 - (4) Crystallized intelligence
3. 'Discontinuity' in the developmental process refers to:
 - (1) New ways of understanding the world that emerge during the process of development.
 - (2) Negative breaks in the developmental process.
 - (3) A downward negative trend in development.
 - (4) Interference in the developmental process.
4. Authoritative style of parenting/child rearing is based on:
 - (1) Making decisions for the child
 - (2) Not listening to a child's point of view
 - (3) Making unreasonable demands from the child
 - (4) Engage in joint decision making wherever possible
5. According to Jean Piaget, the process of developmental change takes place through which of the following specific cognitive functions?
 - (1) Experience and social transmission
 - (2) Assimilation and Accommodation
 - (3) Maturation and Experience
 - (4) Social transmission and maturation
6. A 5 year old child was given 10 pebbles by her teacher. She put the pebbles in different formations e.g. a short line, a long line and a circle. She counted these pebbles repeatedly. Which of the following cognitive schemas is she attempting to attain according to Jean Piaget?
 - (1) Seriation
 - (2) Transitive inference
 - (3) Nominal scale
 - (4) Conservation of numbers
7. According to Lev Vygotsky, the process of cognitive development is mediated by:
 - (1) Cultural Tools
 - (2) Cultural Modes
 - (3) Cultural Signifiers
 - (4) Cultural Derivatives
8. Development in 'Zone of Proximal Development' according to Lev Vygotsky can be facilitated through:
 - (1) Collaborative dialogues
 - (2) Observational learning
 - (3) Reversible thinking
 - (4) Expository learning
9. The stage 5 of post-conventional morality as given by Lawrence Kohlberg is marked by:
 - (1) A free agreement to follow a social contract for the benefit of humanity
 - (2) A free exploration of ethics even beyond social contract
 - (3) Formulation of moral rules that bypass ethics
 - (4) The need to appear to be 'a good person'
10. A progressive educator need to embody which of the following attributes within a classroom:
 - (1) Empathy, control, care
 - (2) Empathy, control, discipline
 - (3) Empathy, realness, care
 - (4) Empathy, realness, control
11. Which of the following are major concerns about using the concept of Intelligence Quotient to measure Children's intelligence?
 - (i) Instability of Score
 - (ii) Cultural bias in tests
 - (iii) Product-orientedness of tests
 - (iv) Labelling of children
 - (1) ii, iii, iv
 - (2) i, ii, iii, iv
 - (3) i, ii, iv
 - (4) i, iii, iv
12. An experience of intra-personal intelligence within a classroom according to Howard Gardner refers to:
 - (1) Ability to handle social situations well
 - (2) Ability to understand meaning and rhythms of others' speech
 - (3) Knowledge of one's own complex feelings, strengths and weaknesses
 - (4) Appreciation of aesthetics and beauty.
13. The role of a teacher within the classroom is to encourage children to express which of the following attitudes related to gender?
 - (1) Gender stereotyping
 - (2) Gender constancy
 - (3) Adopt socially acceptable gender roles
 - (4) Gender - stereotype flexibility
14. In a classroom where students have diverse learning profiles, a teacher needs to :
 - (1) Identify normative level of teaching
 - (2) Find creative ways of engaging with diverse learning pace of students
 - (3) Create special achievement and remedial sections
 - (4) Do ability groupings within classroom

15. Formative assessment is generally used:
 - (1) To provide teachers with a rational basis for preparing tests /exam papers
 - (2) To help teachers plan better and provide supportive, non –evaluative feedback to students
 - (3) To help students develop good test taking skills
 - (4) To discriminate appropriately between ability levels of students
16. Multi-cultural Education is aimed at:
 - (1) Educational inequality for children form different cultures within a classroom.
 - (2) Educational equity for children form different cultures within a classroom.
 - (3) Showcasing dances / music of different cultures on specific occasions like annual day of school.
 - (4) Creating special sections in schools for children belonging to different cultures.
17. The education of learners from 'disadvantaged' and 'deprived' backgrounds can get negatively influenced by which of the following
 - (i) Stereotypes
 - (ii) Lack of understanding of Local Knowledge Systems
 - (iii) Top-down curriculum
 - (iv) Curriculum based on local culture and language
 - (1) (i) and (ii)
 - (2) (i), (ii), and (iii)
 - (3) (i), (ii), (iv)
 - (4) (i), (ii), (iii), (iv)
18. Creative thinking is **not** facilitated by which of the following:
 - (1) Originality
 - (2) Tolerance of ambiguity
 - (3) Convergent thinking
 - (4) Flexibility in thinking
19. A child with locomotion disability joins a primary school. Which of the following would **not** be a facilitative strategy for inclusion of the child within school?
 - (1) Provision of allocating class on the ground floor
 - (2) Empathy- building among peers
 - (3) Appropriate infrastructural modifications
 - (4) Showing sympathy for the lack of ability
20. Which of the following strategies would **not** be facilitative with respect to children who have specific hearing disabilities within regular schools?
 - (1) Relaxation in specific domains of learning, wherever possible
 - (2) Reasonable accommodation in curriculum
 - (3) Continual negative comments on errors committed
 - (4) Individualized educational planning
21. "Success" in schools should be broadened beyond specific academic achievement within school to include:
 - (1) Training given by coaching institutions.
 - (2) Development of socio – emotional capacities as an important part of education.
 - (3) Extra tests which can be done at home.
 - (4) Constant focus only on areas where a child is 'weak'.
22. Conceptual clarity can be said to have been achieved when a student can:
 - (1) Recall information given correctly
 - (2) Write down information correctly
 - (3) Clearly remember the definition of a concept
 - (4) Apply concepts learnt to real life situations
23. To enable children to become effective problem-solvers it is critical that they are given opportunities to :
 - (1) Do experiments only in the format prescribed in the textbook
 - (2) Discover a concept through independent thinking
 - (3) Take extra tuitions wherever necessary
 - (4) Learn primarily through audio –visual aids and smart boards only
24. The errors that children make during the learning process can be:
 - (1) Used to ascertain their current ability and intelligence.
 - (2) Rectified immediately without feedback so that they are not repeated
 - (3) Seen as normal and acceptable part of cognitive development
 - (4) A distraction in the learning process and should be minimized quickly
25. What is the role of children's emotions in learning?
 - (1) Emotions distract children from learning and therefore need to be controlled.
 - (2) There needs to be a clear disconnect between cognition and emotions of children for effective learning.
 - (3) Emotions give meaning to learning experiences and need to be integrated within learning process.
 - (4) Emotions make learning process 'messy' and unpredictable.
26. Children can be encouraged to become intrinsically motivated learners by:
 - (1) giving rewards for encouragement
 - (2) punishing them to avoid making mistakes
 - (3) learning from the mistakes made during learning process without any negative penalty
 - (4) encouraging teacher attention to performance by special achievers within a classroom
27. Which of the following characteristics are there in 'master oriented learners'?
 - (1) Low fear of failure, incremental view of ability
 - (2) High fear of failure, entity view of ability
 - (3) Low fear of failure, entity view of ability
 - (4) High fear of failure, incremental view of ability
28. Which of the following is a hindrance in effective problem-solving?
 - (1) Activating the right schema
 - (2) Response set
 - (3) Identification of the real problem
 - (4) Application of heuristics or general problem solving strategies
29. Encouraging students to compete among themselves in the classroom can have the following consequences. Which of these would you perceive to be harmful for a child's growth?
 - (i) It creates 'winners' and 'losers' within a classroom
 - (ii) It increases the stress and anxiety level of students hampering their cognitive growth
 - (iii) It can create 'star' students within a classroom whose achievement can be source of pride for schools
 - (iv) It can prepare students to fit into the competitive, market based economics.
 - (1) (i), (ii)
 - (2) (i), (ii), (iv)
 - (3) (i), (ii), (iii), (iv)
 - (4) (ii), (iii), (iv)

30. The process of meaningful learning needs to be mediated by:
- (1) Personal philosophy and perspective of the learner
 - (2) The knowledge 'received' by the learner from the teacher
 - (3) The requirements of the curriculum geared towards summative assessment
 - (4) Based primarily on views of expert

Mathematics and Science

31. The number of composite numbers between 101 and 120 is:
- (1) 13
 - (2) 14
 - (3) 15
 - (4) 16
32. A rational number between $-\frac{5}{6}$ and $\frac{3}{8}$ is:
- (1) $-\frac{7}{8}$
 - (2) $-\frac{8}{9}$
 - (3) $\frac{1}{3}$
 - (4) $\frac{5}{6}$
33. If $504 = 2^p \times 3^q \times 7^r$, then what is the value of $(2p + q - r)$?
- (1) 5
 - (2) 6
 - (3) 7
 - (4) 8
34. $\sqrt[3]{8^4} \times \sqrt[3]{125^2} \div \sqrt{4^3}$ is equal to:
- (1) 50
 - (2) 40
 - (3) 100
 - (4) 80
35. The LCM and HCF of two numbers are 1485 and 33, respectively. If one of the numbers is divided by 31, the quotient is 9 and the remainder is 18. What is the other number?
- (1) 165
 - (2) 198
 - (3) 231
 - (4) 264
36. If x is subtracted from each of 26, 24, 56 and 49, then the numbers, so obtained in this order are in proportion. What is the value of $\frac{2x-6}{2}$?
- (1) 10
 - (2) 11
 - (3) 12
 - (4) 15
37. A factor of common to both $x^2 + 7x + 12$ and $x^2 - 5x - 36$ is:
- (1) $x + 1$
 - (2) $x + 3$
 - (3) $x + 4$
 - (4) $x - 6$
38. If $4 - \frac{2(x-4)}{3} = \frac{1}{2}(2x+5)$, then $\frac{2x+1}{2}$ is equal to
- (1) $\frac{2}{3}$
 - (2) $\frac{5}{2}$
 - (3) 3
 - (4) 4
39. If $(3x^2 - 6x - 4) + (4x - 3 - x^2) - (5 + x - 2x^2) = (Ax^2 + Bx - C)$, then what is the value of $(A + B - C)$?
- (1) 10
 - (2) 12
 - (3) -11
 - (4) 16
40. If $x + y = 3$ and $x^2 + y^2 = 29$, then what is the value of $\frac{1}{x} + \frac{1}{y}$?
- (1) $\frac{3}{29}$
 - (2) $-\frac{3}{10}$
 - (3) $-\frac{1}{5}$
 - (4) $\frac{3}{10}$
41. The external and internal radii of a cylindrical pipe are 16 cm and 15 cm, respectively. The length of the pipe is 63 cm. What is the volume (in cm^3) of the material used in making it? (Take $\pi = \frac{22}{7}$)
- (1) 5940
 - (2) 6039
 - (3) 6138
 - (4) 6820
42. The perimeter of a rhombus-shaped field is 400 m and the length of one its diagonals is 160 m. What is the area (in m^2) of the field?
- (1) 1600
 - (2) 4800
 - (3) 6400
 - (4) 9600
43. The perimeter of a trapezium is 188 cm and its area is 1625 m^2 . If the distance between the parallel sides is 25 cm, then what is sum of its non-parallel sides?
- (1) 36 cm
 - (2) 42 cm
 - (3) 48 cm
 - (4) 58 cm
44. In $\triangle ABC$, $AB = BC$. Points D and E are on the side AC such that $AD = EC$. Which of the following is correct?
- (1) $\triangle ABE \cong \triangle BCD$
 - (2) $\triangle ABE \cong \triangle CBD$
 - (3) $\triangle ABE \cong \triangle BDC$
 - (4) $\triangle ABE \cong \triangle DBC$
45. The sum of all interior angles of a regular n sided polygon is 1800° . What is the value of $\frac{n+4}{2}$?
- (1) 6
 - (2) 7
 - (3) 8
 - (4) 9
46. The number of faces, vertices and edges of a polyhedron A are x , 10 and 15, respectively and the number of faces, vertices and edges of polyhedron B are 12, y and 30, respectively. What is the value of $(x + y)$?
- (1) 24
 - (2) 25
 - (3) 27
 - (4) 29
47. In $\triangle ABC$, the bisectors of $\angle B$ and $\angle C$ meet at a point D. If $\angle BDC$ is 102° , then $\angle A =$
- (1) 24°
 - (2) 32°
 - (3) 51°
 - (4) 78°
48. BD is diagonal of a rhombus ABCD. If $\angle ADB = 50^\circ$, then the measure of $\angle DCB$ is
- (1) 60°
 - (2) 75°
 - (3) 80°
 - (4) 100°
49. Two dice are thrown simultaneously. What is the probability that the sum of the numbers appearing on them is at least 7?
- (1) $\frac{4}{9}$
 - (2) $\frac{7}{12}$
 - (3) $\frac{1}{3}$
 - (4) $\frac{5}{18}$

50. Let x be the median of the data below:
13, 14, 15, 11, 9, 9, 8, 7, 16, 15, 5, 6, 16, 25, 16, 23, 28, 17
If 6 is replaced by 19 and 13 by 31 in the above data, then the median of the resulting data is y . What is the value of $(3x - y)$?
(1) 26 (2) 27
(3) 28 (4) 29
51. In order to incorporate Jean Piaget's framework in teaching in mathematics, a teacher must
(1) initiate group discussions in the class.
(2) focus only on age-specific problem-solving task.
(3) schedule visits to the community.
(4) give enough manipulatives to work with in order to teach a concept.
52. Which of the following is **NOT** a characteristic of mathematic lesson planning?
(1) It makes teaching systematic and well organised.
(2) It helps students to develop the habit of undertaking immediate corrective measures.
(3) It helps teacher in developing insights about learning needs and abilities of children.
(4) It helps teachers to learn to foresee and tackle learning difficulties of children.
53. Which among the following is/are the features of an effective mathematics teacher?
a. Should be competent and confident in the subject matter.
b. Should be able to provide procedural knowledge to the students so that they can solve the problems.
c. Should be able to create a stimulating classroom environment conducive to learning.
d. Continues to investigate new mathematical knowledge and effective teaching strategies.
(1) a and d (2) a, b and c
(3) b, c and d (4) a, c and d
54. Which one of the following practice is **NOT** suitable for teaching Mathematics at upper primary level?
(1) Using mathematical laboratories
(2) Using mathematical games and puzzles
(3) Using open ended question
(4) Using only formal algorithms
55. After the class on 'Ratio and Proportion', Mr. Alok, a middle school mathematics teacher thought of conducting a diagnostic test to assess the students ability to identify situations of non-proportional thinking. Which of the following questions are most relevant to be included in this test?
(1) Sita and Soha are planting corns in the same farm. Sita plants 4 rows and Soha plants 6 rows. If Sita's corn is ready in 8 weeks, how many weeks it will take for Soha's corn to be ready?
(2) A school orders 3 cartons of milk for every 8 students. If there are 624 students in the school, how many cartons of milk should be ordered?
(3) In a school the ratio of students to teachers is 16 : 1. If there are 1248 students in a school, find the number of teachers
(4) $\frac{4}{6} = \frac{x}{15}$ find x .
56. A teacher uses the open-ended problems during teaching-learning process of mathematics. This practice helps to promote:
a. creative thinking
b. divergent thinking
c. equity in classroom
d. convergent thinking
Which one of the following is correct ?
(1) Only c (2) a & b
(3) a, b & c (4) b & d
57. Which among the following statements is/are correct:
a. Every mathematical concept gives rise to more mathematical concepts.
b. Mathematical ideas grows from abstract to concrete.
c. Mathematical ideas grows from particular to general.
(1) a and b (2) a and c
(3) b and c (4) Only a
58. In a given data, which one of the measures of central tendencies would be affected by one or two extremely large or extremely small values outside the range of the rest of the data?
(1) Median (2) Mean
(3) Mode (4) Frequency
59. An middle school Mathematics teacher uses following strategies in her geometry classes.
(i) Using a set of wedges of about 15° to measure variety of angles.
(ii) Overlapping cut outs of various angles to find out angles with equal measures.
(iii) Measuring a straight line segment using pencils of different lengths.
The pedagogy used by the teacher focuses on:
(1) Teaching angle sum property of polygons.
(2) Non-numerical comparison of angle sizes
(3) Introducing the concept of line and line segments
(4) Using measurement activities with non-standard units to introduce standard units of measurement later.
60. Activities are an important tool for learning in elementary school mathematics classrooms because:
(a) engaging in Activities encourages strategic mathematical thinking and development of computational fluency
(b) activities serve as motivation for students to practice and tool for teachers to assess the students.
(c) activities help teachers to complete the syllabus in time.
(d) lot of free periods in time-table can be utilised through activities.
Choose the correct option:
(1) (a) & (c) (2) (a) & (b)
(3) (b), (c) and (d) (4) (b) & (d)
61. How many images will be formed if you stand between two plane mirrors positioned parallel to each other in a trial room of a garment shop?
(1) Two (2) One
(3) Four (4) Infinite

62. A piece of copper is put in a test tube containing Hydrochloric acid. Which of the following statements will be true?
 (1) No reaction takes place
 (2) Reaction is slow
 (3) "Pop Up" sound is heard
 (4) Colour of solution changes
63. It is observed that a copper vessel gets corroded in rainy season to give
 (1) reddish brown coating of copper dioxide and copper hydroxide
 (2) greenish coating of copper hydroxide and copper carbonate
 (3) white coating of copper carbonate and copper oxide
 (4) green coating of copper sulphite and copper carbonate
64. Which of the following household substances will turn red litmus blue?
 (a) Baking soda (b) Vinegar
 (c) Lemon juice (d) Bleach
 (1) a, b (2) b, c
 (3) a, c (4) a, d
65. Identify the pair of materials that burns with a flame:
 (1) Camphor, Magnesium (2) Camphor, Coal
 (3) Coal, Kerosene (4) Kerosene, Charcoal
66. Which of the following statements is/are always true about the process of cloning?
 A. It is possible only in animals.
 B. It results in exact replication of a cell, a living part or an organism.
 C. It results in a large number of off-springs.
 (1) A & B (2) Only B
 (3) B & C (4) Only A
67. Read the following carefully and choose correct option:
Assertion (A): A plastic bottle, half filled with boiling water and tightly capped, thereafter gets crushed when allowed to rest for some time.
Reason (R): Air pressure decreases with decrease in temperature in the bottle.
 (1) Both A & R are correct and R is correct explanation for A
 (2) Both A & R are correct but R is not correct explanation for A
 (3) A is correct but R is not correct
 (4) Both A and R are not correct
68. Choose the **incorrect** statement:
 (1) Magnets lose their properties on heating.
 (2) Bar magnets should be kept in pairs with their unlike poles on the same side.
 (3) Similar poles of magnets repel each other.
 (4) Nickel and Cobalt do not get attracted by magnet.
69. An object is placed in front of a convex lens in such a way that its real and magnified image is formed on the other side. If the top half of the convex lens is covered with a black/opaque paper then:
 (1) the image magnification will be reduced.
 (2) the top half of the image will vanish.
 (3) the bottom half of the image will vanish.
 (4) the sharpness of the image will be reduced.
70. A car that can travel at a maximum speed of 120 km/hr takes 7 hours 45 minutes to cover a distance of 372 km. What is the difference between the maximum and the average speed of this car?
 (1) 40 km/hr (2) 48 km/hr
 (3) 72 km/hr (4) 120 km/hr
71. Which of the following statement is **incorrect** in the context of earthquakes?
 (1) Most earthquakes are caused by sudden slipping of tectonic plates and by volcanic eruptions.
 (2) An earthquake of the magnitude of 3.0 on Richter scale can trigger a tsunami.
 (3) A major earthquake is generally followed by tremors in the same area.
 (4) Study of earthquakes is known as Seismology.
72. Three objects A, B and C having different densities but same size are put in a liquid. Consider the following situations and arrange these in ascending order of buoyant force acting on each of the objects.
 (i) A is completely submerged in liquid.
 (ii) B floats which $\left(\frac{1}{4}\right)^{\text{th}}$ of its volume inside the liquid.
 (iii) C floats with $\left(\frac{1}{2}\right)^{\text{th}}$ of its volume inside the liquid.
 (1) $B < C < A$ (2) $B = C > A$
 (3) $A < C < B$ (4) $A = B = C$
73. The major reason for using Bakelite for handles of pressure cooker is that
 (1) it is bad conductor of heat.
 (2) it is bad conductor of electricity.
 (3) it is unbreakable
 (4) it is light in weight
74. The vitamins which also act as anti-oxidants are:
 (1) A, B and D (2) A, C and E
 (3) D, B and C (4) D, E and K
75. The following table depicts the presence or absence of certain cell organelles in three cells A, B, C. What could A, B, C be?
- | Part of a cell | A | B | C |
|----------------|---|---|---|
| Cytoplasm | 3 | 3 | 3 |
| Nucleus | 3 | 3 | 3 |
| Cell wall | 3 | 7 | 3 |
| Cell membrane | 3 | 3 | 3 |
| Chloroplast | 3 | 7 | 7 |
- (1) A-Plant Cell; B-Animal Cell; C-Plant Cell
 (2) A-Animal Cell; B-Plant Cell; C-Animal Cell
 (3) A-Plant Cell; B-Animal Cell; C-Animal Cell
 (4) A-Plant Cell; B-Plant Cell; C-Animal Cell
76. Consider the following statements and choose the **correct** option:
 A. Measles is caused by Bacteria
 B. Malaria is caused by Plasmodium
 C. Typhoid is caused by Bacteria
 D. Leprosy is caused by Virus
 (1) A, C (2) B, C
 (3) B, C, D (4) A, C, D

77. Read the following statements and choose the correct option:
S1: Hen exhibits external fertilization
S2: Hen is an oviparous animal
 (1) Both S1 & S2 are true
 (2) S1 is true but S2 is false
 (3) S2 is true but S1 is false
 (4) Both S1 & S2 are false
78. Read the following statements and choose the correct option:
Assertion (A): A bird like owl can see very well in night but not during day.
Reason (R): Night birds have a few cones and a large number of rods in the retina.
 (1) Both A & R are true and R is correct explanation of A
 (2) Both A & R are true but R is not correct explanation of A
 (3) A is true but R is false
 (4) Both A and R are false
79. Increasing the consumption of which of the following would help you increase the level of carbohydrate in you body?
 (1) Maize (2) Pea
 (3) Soyabean (4) Groundnut
80. Read the following statements and choose the correct option.
Assertion (A): The speed of sound is more on a hot summer day than on a cold winter day
Reason (R): The density of hot air is less than the density of cold air.
 (1) Both A and R are true and R is correct explanation for A.
 (2) Both A and R are true but R is not the correct explanation for A.
 (3) A is true and R is not true.
 (4) A is not true and R is true.
81. Which of the following is **NOT** true about 'observing' in science?
 (1) It involves seeing, tasting, touching, listening and smelling
 (2) It focuses on telling "what it is"
 (3) It gives unbiased truths about natural phenomena
 (4) It helps in gathering first hand data about a phenomenon
82. According to the NCF-2005 Position Paper on Teaching of Science, which of the following is an important and transferable skill that helps the children in 'learning to learn' science?
 (1) Ability to learn scientific facts
 (2) Ability to recall the formulae to solve problems
 (3) Ability to understand the process of scientific inquiry
 (4) Ability to recall the contributions of great scientists
83. What do we mean when we say that scientific knowledge is tentative?
 (1) That the current scientific theories are undependable or flimsy
 (2) That scientific knowledge is not reliable and durable
 (3) That existing scientific knowledge is subjected to revision in the light of new evidence
 (4) That scientific knowledge is generally fixed and eternal
84. While teaching the topic 'Electricity' in class VIII, the teacher commented, "Thomas Edison experimented thousands of times before he successfully found a material suitable to be used as a filament of a light bulb". Which of the following aspects is the teacher highlighting above?
 (1) Subjectivity in Science
 (2) Tentativeness of Science
 (3) Empirical nature of Science
 (4) Cultural embeddedness of Science
85. A teacher can inculcate the essence of the scientific enterprise among students by all of the following practices, **EXCEPT**:
 (1) Students should be made convergent with multiple methods of science.
 (2) Nature of science to be made an integral part of teaching-learning.
 (3) Students must be required to memorize facts and reproduce when needed.
 (4) Historical aspects of the development of scientific concepts should be emphasized.
86. Which among the following is the most important consideration for organising remedial teaching?
 (1) Paying attention to individual rate of progress
 (2) Inclusion of several group activities
 (3) Completion of entire syllabus
 (4) Paying attention to the examination pattern
87. Reena found that during a class test, most of the students had responded incorrectly to a concept-based question. Which of the following strategies can help in addressing this issue?
 (1) Motivate students to read, understand and learn well
 (2) Arrange a PTM and ask parents to encourage students to prepare well for next exams
 (3) Teach the concept again
 (4) Search for conceptual gaps and teach the concept accordingly
88. Read the following statements and choose the correct option.
Assertion (A): Demonstration of discrepant events helps in addressing misconceptions.
Reasoning (R): Discrepant events create cognitive conflict for conceptual change
 (1) Both A and R are correct and R gives explanation for A
 (2) A is correct but R is not correct
 (3) Both A & R are correct but R is not explanation for A
 (4) Both A & R are incorrect
89. A teacher and her group of students, while carrying out an activity on seed germination, planted seeds in different conditions and found that dry seeds did not grow. The teacher posed the following questions to students:
 • Why do you think these seeds are not growing?
 • What can be done to make them grow?
 Which of the following skills is the teacher trying to develop among the students through these questions?
 (1) Observing (2) Hypothesising
 (3) Predicting (4) Question-raising

90. Which of the following statements are correct regarding assessment in science?
- Continuous assessment dilutes teaching-learning
 - It is impractical to record each task of each student
 - Qualitative criteria help in meaningful assessment
 - Every concept need not be tested
- (1) A, B (2) C, D
 - (3) B, C (4) A, D

Language: English

Direction (91-99): Read the passage given below and answer the questions by choosing the correct/most appropriate options.

There are no secrets in science. One can do and know all that a scientist does and knows. One does not need to have any faith in him as an individual and accept what he says without questioning it. The only thing a scientist asks of one is to base ones characterizes a child on whom society has not yet imposed its beliefs and prejudices, in fact, science is nothing more than questions asked and questions answered, and the method of science, no more than a method of asking questions and answering them, a method that "works" and can be used to solve problems that one faces in everyday life.

Science is indeed, far more than just physics, chemistry, biology, astronomy and mathematics. It is a question of ideas and a way of thinking. It is a culture and a philosophy of life, a philosophy which allows us to purpose truth without any prejudgement. What, then, is this attitude of mind, this culture and this philosophy of life? It turns out that all these and other-concomitants and attributes of science emanate primarily from the method that science uses to acquire knowledge. Certain characteristics of this method, which we call "The method of science", and of knowledge gained by the application of this method, create a value system within their framework, a value system which is rational and reasonable, which appeals to common sense, which is commensurate with knowledge and, above all which has a build-in corrective. It, therefore, becomes especially important to understand the basis of the method of science, and at the value system of science, so that we may understand the culture. One does not need to have any faith in him as an individual and accept what he says without questioning it

91. Read the following sentences:
- An individual should not have any faith in a scientist.
 - A scientist desires questioning based on simple reasoning.
- (1) A is false B is true (2) A is true B is false
 - (3) Both A and B are true (4) Both A and B are false
92. What type of reason is **NOT** highly required in a scientific enquiry?
- (1) Untempered
 - (2) Uninhibited
 - (3) One free from any previous belief
 - (4) That of a highly educated and prejudiced mind
93. Study the following statements
- Scientific method means asking questions and speaking their answers
 - Everyday problems of life may not be solved by the scientific method
- (1) (A) is right and (B) is wrong
 - (2) (B) is right and (A) is wrong

- (3) Both (A) and (B) are right
 - (4) Both (A) and (B) are wrong
94. Science, according to the author is more than
- (1) a philosophy of life
 - (2) disciplines of knowledge
 - (3) questions of ideas
 - (4) a way of thinking
95. Which of the following is not a true statement?
- (1) Rationality is an important basis of scientific method
 - (2) Value system is based on reasoning and appeals to one's common sense
 - (3) The attitude of mind cannot be understood by methods of science
 - (4) Understanding philosophy of life is essence of science
96. Which part of speech is attributed to the underlined words in the following sentence?
- "What then is this attitude of mind, this culture and this philosophy of life"
- (1) Adverb (2) Adjective
 - (3) Pronoun (4) Article
97. Choose the word which means the same as "untempered" as used in the given passage
- (1) Ill-tempered (2) Unwanted
 - (3) Logical (4) Irrational
98. Most appropriate antonym of the word "prejudiced" is:
- (1) deferential (2) indifferent
 - (3) detrimental (4) preconceived
99. Which part of the given sentence shows an error?
- "The methods of science are no more than a method of asking questions and answering"
- (A)
 - (B)
 - (C)
 - (D)
- (1) A (2) B
 - (3) C (4) D

Direction (100 to 105): Read the stanza given below and answer the questions/complete the statements that follow with the help of given options.

My mistress bent that brow of hers;
 Those deep dark eyes where pride demurs
 When pity would be softening though,
 Fixed me a breathing while or twos
 With life or death in the balance right!
 The blood replenished me again;
 My last thought was at least not vain:
 I and my mistress, side by side
 Shall be together, breathe and ride,
 So, one day more am I deified,
 Who knows next but the world may end to-night?

100. Study the following statements:
- The lover's fate hangs in balance
 - The beloved is easily persuaded
 - Her pride stands in the way of her lover's success
 - There is a conflict between pride and pity
- (1) (a) and (b) are both correct
 - (2) (b) and (c) are both correct
 - (3) (c) and (d) are both correct
 - (4) (a) and (b) are both wrong
101. (1) The poet is a dejected lover
- (2) He loses heart very soon
 - (3) He knows that ultimately he will win her love
 - (4) His request is a matter of life and death for him

102. What was the poet's last thought?
 (1) his request for a ride together
 (2) that his beloved would accept his love
 (3) that she would raise her beautiful brow
 (4) that his breathing would start again
103. 'am I deified' the figure of speech used in the expressions is
 (1) Simile (2) Metaphor
 (3) Personification (4) Imagery
104. 'with life and death in the balance' the figure of speech in the expression is:
 (1) Simile (2) Metaphor
 (3) Hyperbole (4) Personification
105. Study the following statements:
 (a) At the end the lover feels that he is in Heaven.
 (b) At least his one request has been granted.
 (1) (a) is right and (b) is wrong
 (2) (b) is right and (a) is wrong
 (3) Both (a) and (b) are right
 (4) Both (a) and (b) are wrong
106. Language is
 (1) system of structures
 (2) communication system
 (3) a rule governed system
 (4) a scientific system
107. A teacher does actions which learners follow as directed and learners are not expected to speak or produce language. What is this method known as?
 (1) Imitation method
 (2) Total Physical Response
 (3) Dramatics
 (4) Communicative approach
108. How many languages are listed in 8th schedule of the Indian Constitution?
 (1) 22 languages (2) 18 languages
 (3) 26 languages (4) 1,179 languages
109. A classroom makes the learners notice language through various means viz., on the wall, class library, audio and video. What should this be described?
 (1) Language acquisition
 (2) Language comprehension
 (3) Input rich environment
 (4) Language practice through senses
110. Skimming a text means
 (1) reading for specific details
 (2) reading aloud the text
 (3) reading for information
 (4) reading for general meaning
111. 'Use of vocabulary, pronunciation and grammar' are
 (1) Informal language inputs.
 (2) form oriented language inputs.
 (3) meaning oriented language inputs
 (4) linguistics oriented language inputs
112. What is productive vocabulary?
 (1) Words that we use in writing and speaking.
 (2) Words which we recognize when someone speaks.
 (3) Words which we notice while reading.
 (4) Words which we do not understand.
112. What is productive vocabulary?
 (1) Words that we use in writing and speaking.
 (2) Words which we recognize when someone speaks.
- (3) Words which we notice while reading.
 (4) Words which we do not understand.
113. Procedural knowledge helps learners
 (1) learn the knowledge about language
 (2) learn the form first and use it later
 (3) apply the rules of grammar in communication
 (4) master the rules of grammar of a language
114. Which approach to writing could be stated as learning to write by writing?
 (1) Product approach
 (2) Process approach to writing
 (3) Dictation
 (4) Summarising
115. Which of the following is an extrapolative writing task?
 (1) Imagine you are the boy in the story write a letter to your friend describing your experience of the journey in which you met a stranger.
 (2) Fill out the railway ticket reservation form to go to Nagpur.
 (3) Read the poem as many times as possible and write the summary of the poem.
 (4) Write the autobiography of a tree.
116. 'Embedding the pedagogy into the materials' is
 (1) content validity of the materials
 (2) reliability of the materials
 (3) pedagogical understanding of the teacher
 (4) pedagogical realization of materials
117. A teacher organizes the following activity every day –
 Divides the class into groups of five and gives some day-to-day functions/themes for conversation in the groups and later she picks up one from each group and asks the group to converse as a whole class activity. What is she attempting to promote?
 (1) Basic Interpersonal Communicative Skills (BICS)
 (2) Cognitively Advanced Language Proficiency (CALP)
 (3) Discourse competency
 (4) Group Discussion
118. Assessment designed to monitor and improve students' progress during the teaching-learning process.
 (1) Assessment of learners
 (2) Assessment for learning
 (3) Assessment of learning
 (4) Assessment as learning
119. National Education Policy 2020 recommends the study of classical languages as
 (1) a language within the three language formula
 (2) as a compulsory language
 (3) an additional option
 (4) as a second language
120. A teacher organizes her class into the pair and gives a story of 18 sentences. One of the pairs has odd sentences (sentences 1, 3, 5, ...) printed and other sentences blank while the other has even sentences (sentences 2, 4, 6, ...) and odd sentences blanks. Students in pairs have to read out the sentences mutually to each other and write to complete the story. This involves listening, speaking, reading and writing. What is this task known as?
 (1) Mutual dictation (2) Group dictation
 (3) Sentence dictation (4) Paragraph dictation

Language: Hindi

निर्देश (121-128): नीचे दिए गए गद्यांश को पढ़कर पूछे गए प्रश्नों के सबसे उपयुक्त उत्तर वाले विकल्प चुनिए—

विद्यालोलुप चीनी सन्यासी नालन्दा की भव्यता और पवित्रता देखकर लट्टू हो गया। ऊँच-ऊँचे विहार और मठ चारों ओर खड़े थे। बीच-बीच में सभागृह और विद्यालय बने हुए थे। वे सब समाधियों, मंदिरों और स्तूपों से घिरे हुए थे। उनके चारों तरफ बौद्ध शिक्षकों और प्रचारकों के रहने के लिए चौमंजिला इमारतें बनी हुई थीं। उनके सिवा ऊँची-ऊँची मीनारों और विशाल भवनों में नाना प्रकार के बहुमूल्य रत्न जड़े हुए थे। रंग-बिरंगे दरवाजों, कड़ियों, छतों, और खम्भों की राजावट को देखकर लोग हतप्रभ रह जाते थे। विद्या मंदिरों के शिखर आकाश से बातें करते थे।

विशालता, नियमबद्धता, और सुप्रबन्ध विचार से नालन्दा का विश्वविद्यालय वर्तमान काशी की अपेक्षा ऑक्सफोर्ड से अधिक मिलता जुलता था। विश्वविद्यालय के विहारों में कोई दस हजार भिक्षु विद्यार्थी और डेढ़ हजार अध्यापक रहते थे। इससे संबंध रखने वाला पुस्तकालय नौमंजिला था, जिसकी ऊँचाई करीब तीन सौ फीट थी। इसे महाराज बालादित्य ने बनवाया था। इसमें बौद्ध धर्म संबंधी सभी ग्रंथ थे। प्राचीनकाल में इतना बड़ा पुस्तकालय शायद ही कहीं रहा हो।

121. नालन्दा विश्वविद्यालय में पुस्तकालय का निर्माण करवाया था—

- | | |
|---------------------|-----------------------|
| (1) बालादित्य ने | (2) गुप्त शासकों ने |
| (3) विक्रमादित्य ने | (4) बौद्ध भिक्षुओं ने |

122. नालन्दा विश्वविद्यालय में चौमंजिला इमारतें किसके लिए बनी थीं ?

- | |
|--|
| (1) बौद्ध भिक्षुओं के लिए |
| (2) भिक्षु विद्यार्थियों के लिए |
| (3) बौद्ध शिक्षकों और प्रचारकों के लिए |
| (4) शासकों के लिए |

123. नालन्दा विश्वविद्यालय किससे मिलता-जुलता था ?

- | | |
|-------------------------------|---------------------------------|
| (1) काशी विश्वविद्यालय से | (2) ऑक्सफोर्ड विश्वविद्यालय से |
| (3) तक्षशिला विश्वविद्यालय से | (4) विक्रमशिला विश्वविद्यालय से |

124. चीनी सन्यासी नालन्दा की देखकर लट्टू हो गया।

- | | |
|-----------------------|----------------------------|
| (1) भव्य इमारत को | (2) समाधियों और मंदिरों को |
| (3) छतों और खम्भों को | (4) भव्यता और पवित्रता को |

125. 'चौमंजिला' में समास है—

- | | |
|---------------|--------------|
| (1) कर्मधारय | (2) द्विगु |
| (3) बहुव्रीहि | (4) तत्पुरुष |

126. 'लट्टू होना' मुहावरे का क्या अर्थ है—

- | | |
|---------------|----------------------|
| (1) पागल होना | (2) आश्चर्यचकित होना |
| (3) कायल होना | (4) घायल होना |

127. 'विद्यालोलुप' का शाब्दिक अर्थ होगा—

- | | |
|-------------|-----------------|
| (1) लालची | (2) प्रतिभाशाली |
| (3) विद्वान | (4) जिज्ञासु |

128. 'आकाश से बातें करना' मुहावरे का अर्थ है—

- | | |
|----------------------|----------------------------|
| (1) असंभव कार्य होना | (2) अत्यंत आश्चर्यजनक होना |
| (3) बहुत ऊँचा होना | (4) अतिशयोक्तिपूर्ण होना |

निर्देश (129-135): नीचे दिए गए गद्यांश को पढ़कर पूछे गए प्रश्नों के सबसे उपयुक्त उत्तर विकल्प को चुनिए—

स्वावलंबन के अनेक लाभ हैं। स्वावलंबी मनुष्य में अनेक गुण स्वतः ही आ जाते हैं, जैसे-आत्मविश्वास, आत्मसम्मान, दृढ़ संकल्प, साहस, धैर्य तथा आत्मबल। स्वावलंबी मनुष्य कभी निराशा के गर्त में नहीं गिरता, अपितु सदैव आशावान बना रहता है। वह अपने भाग्य का अपने हाथों से निर्माण करता हुआ कहता है— 'अपना हाथ जगन्नाथ'। आत्मनिर्भरता से

कायरता, भय, संशय, आलस्य तथा चिंता दूर हो जाती है। इससे व्यक्ति अनेक कष्टों एवं बाधाओं को पद-दलित करता हुआ।

कंटकाकीर्ण मार्ग पर निर्भरतापूर्ण आगे बढ़ता जाता है। वह भली-भाँति समझ लेता है कि वह मनुष्य है तथा उसमें ईश्वर ने अनेक गुणों की सृष्टि की है। अतः निराशा होना उसका धर्म नहीं। उसे यह भली-भाँति समझना चाहिए कि निराशा के क्षणों में भी उसे आत्मविश्वास एवं आत्मबल का त्याग नहीं करना चाहिए।

129. स्वावलंबी मनुष्य का गुण नहीं है—

- | | |
|-----------------|-----------------|
| (1) आत्मविश्वास | (2) दृढ़ संकल्प |
| (3) धैर्य | (4) संशय |

130. आत्मनिर्भरता से दूर हो जाते हैं—

- | | |
|--------------------------|--------------------------|
| (1) कायरता, संशय, चिंता, | (2) कायरता, चिंतन, संशय, |
| (3) चिंतन, आलस्य, भय, | (4) आलस्य, भय, चिंतन, |

131. स्वावलंबी मनुष्य में अनेक गुणों की सृष्टि किसने की है ?

- | | |
|---------------------|------------------------|
| (1) स्वयं मनुष्य ने | (2) ईश्वर ने |
| (3) गुरु ने | (4) कष्टों व बाधाओं ने |

132. 'पद-दलित' में समास है—

- | | |
|--------------|---------------|
| (1) तत्पुरुष | (2) कर्मधारय |
| (3) द्वंद्व | (4) अव्ययीभाव |

133. 'सदैव' का सन्धि-विच्छेद है—

- | | |
|--------------|--------------|
| (1) सदा + एव | (2) सद + ऐव |
| (3) सद + एव | (4) सत् + ऐव |

134. किस शब्द में 'ता' प्रत्यय का प्रयोग नहीं है—

- | | |
|--------------|-------------|
| (1) दासता | (2) माता |
| (3) निर्भरता | (4) पात्रता |

135. स्वावलंबी व्यक्ति से क्या अपेक्षित नहीं है—

- | | |
|-----------------------|---------------------|
| (1) स्वयं में विश्वास | (2) निर्भीक होना |
| (3) आत्मनिर्भरता | (4) आत्मबल का त्याग |

136. राष्ट्रीय शिक्षा नीति के अध्ययन की वकालत करती है।

- | |
|--|
| (1) संस्कृत, हिन्दी, अंग्रेजी, तथा आधुनिक भारतीय भाषाएँ। |
| (2) मातृभाषा, अंग्रेजी, राज्य की भाषा, संस्कृत, पालि, प्राकृत, तथा जनजातीय तथा छोटे-छोटे समुदायों में बोली जाने वाली भाषाएँ। |
| (3) समूची विद्यालयी शिक्षा में अंग्रेजी एक अध्ययन के रूप में। |
| (4) मातृभाषा/घर की भाषा, शास्त्रीय भाषाएँ, आधुनिक भारतीय भाषाएँ तथा विदेशी भाषाएँ। |

137. एक बच्ची अपने माता-पिता के साथ बिहार से मुम्बई आती है तथा वह विद्यालय में हिन्दी, संस्कृत, तथा अंग्रेजी सीखती है तथा अपने पड़ोस एवम् विद्यालय में अपने मित्रों से मराठी भाषा बहुत अच्छे से सीखती है।

आप मराठी सीखने का किस रूप में वर्णित करेंगे ?

- | | |
|----------------|---------------------|
| (1) भाषा अर्जन | (2) भाषा अधिगम |
| (3) सहारा देना | (4) परिकल्पना निवेश |

138. किसी शिक्षार्थी को एक पाठ्य सामग्री पढ़ते समय कुछ संकेत मिलते हैं जो उसे अर्थ ग्रहण की प्रक्रिया में मदद करते हैं। यह किस रूप में जाना जाता है ?

- | | |
|---------------------------|---------------------|
| (1) सरसरी दृष्टि से पढ़ना | (2) बारीकी से पढ़ना |
| (3) अर्थगत संकेत | (4) सूवात्मक संकेत |

139. श्रवण की किस प्रक्रिया में मुख्य विचार समझना, अनुमान लगाना निष्कर्ष आरेखित करना तथा सारांश लिखना सम्मिलित है ?

- | | |
|-------------------------------------|------------------------|
| (1) ऊर्ध्वोन्मुखी श्रवण प्रक्रियाएँ | (2) सूचना के लिए श्रवण |
| (3) अधोमुखी श्रवण प्रक्रियाएँ | (4) सूचनात्मक श्रवण |

140. संज्ञाएँ, क्रियाएँ, विशेषण, क्रिया-विशेषण के रूप में वर्गीकृत किए गए हैं।

- | | |
|---------------------------|------------------------|
| (1) विषयवस्तु के शब्द | (2) क्रिया शब्द |
| (3) निष्क्रिय शब्द-सम्पदा | (4) सक्रिय शब्द-सम्पदा |

141. संरचनाओं के बारे में ज्ञान, तथा इसे सीमित अभ्यास द्वारा वर्णित करना व क्रियान्वित करना—
 (1) कार्यविधिक ज्ञान है। (2) घोषणात्मक ज्ञान है।
 (3) व्याकरण अनुवाद प्रक्रिया है। (4) भाषा प्रक्रियाएँ हैं।
142. 'प्राकृतिक भाषा में संदर्भ से पठन सामग्री का स्रोत' है।
 (1) बनावटी पठन सामग्री
 (2) साहित्यिक कार्य
 (3) पाठ्य पुस्तक के लेखकों द्वारा विकसित पठन सामग्री
 (4) प्रामाणित पठन सामग्री
143. निम्नलिखित में से कौन-सा भाषा आकलन के बारे में सही है?
 (1) शिक्षार्थियों की उपलब्धि।
 (2) शिक्षार्थियों के व्याकरणिक ज्ञान का आकलन करना।
 (3) शिक्षार्थियों की भाषायी निपुणता का आकलन करना।
 (4) यह पता करना कि शिक्षार्थियों को क्या नहीं आता है।
144. निम्नलिखित में से कौन-सा भाषा की कक्षा में त्रुटियों के विषय में सही है?
 (1) त्रुटियाँ शिक्षार्थियों तथा शिक्षक दोनों के लिए सीखने के क्षेत्र और प्रतिपुष्टि हैं।
 (2) शिक्षार्थी जब भाषा का प्रयोग करते हैं तभी के तभी त्रुटियों को सुधारना चाहिए।
 (3) त्रुटियाँ केवल शिक्षक के लिए सीखने के क्षेत्र हैं।
 (4) त्रुटियाँ द्वितीय भाषा में प्रथम भाषा के हस्तक्षेप का संकेत हैं।
145. एक भाषा शिक्षक सामाजिक विज्ञान के साथियों के साथ मिलकर 'भारत की सांस्कृतिक विविधता' पर प्रदत्त कार्य देता है/देती है। शिक्षार्थियों को इस विषय पर रिपोर्ट लिखने तथा पोस्टर तैयार करने के लिए सामाजिक विज्ञान की पुस्तक तथा इतिहास, भूगोल, संस्कृति, तथा राजनीति से संबंधित अन्य पुस्तकें तथा दस्तावेजों को पढ़ना है। भाषा-अधिगम की यह प्रक्रिया क्या कहलाती है?
 (1) सामाजिक-विज्ञान में भाषा
 (2) सामाजिक विज्ञान का प्रदत्त कार्य
 (3) समूची पाठ्यचर्या में भाषा
 (4) भाषा लेखन का विकास
146. एक शिक्षार्थी नए व्याकरणिक रूपों को सीखते समय पहले से सीखे हुए व्याकरणिक नियमों को आधार बनाता/बनाती है। इस अधिगम तकनीक को क्या कहा जाएगा?
 (1) संज्ञानात्मक युक्तियाँ
 (2) मेटाकॉग्निटिव युक्तियाँ (परा संज्ञानात्मक युक्तियाँ)
 (3) आकृति आधारित अधिगम
 (4) सहयोगात्मक अधिगम
147. एक शिक्षार्थी सीमित समझ के साथ एक पठन सामग्री को पढ़ पाती है। वह पठन सामग्री को बहुत अच्छी तरह पढ़ पाती है तथा अवबोधन कार्य को अपने बड़े भाई की सहायता से करती है। शिक्षण-अधिगम का यह अभ्यास है।
 (1) कोचिंग (2) ट्यूटोरिंग
 (3) सहारा मिलना (4) परिकल्पना निवेश
148. वह कार्य जो शिक्षार्थियों को शब्दों की आकृतियों से जुड़ने, अर्थ निकालने तथा प्रयोग करने में सहायता करता है,।
 (1) व्याकरण सीखने में सम्प्रेषणात्मक कार्य है।
 (2) अर्थ ग्रहण करने के लिए भाषा सीखने का कार्य है।
 (3) व्याकरण सीखने के लिए संरचनात्मक कार्य है।
 (4) कार्यविधिक व्याकरण सीखना है।
149. निम्नलिखित में से कौन-सी व्याकरण सीखने में 'सचेतनता में वृद्धि करने वाली' रणनीति है?

- (1) व्याकरणिक इकाईयों के नियम की तरह प्रस्तुत करना और पृथक रूप से प्रयोग करने के लिए बार-बार अभ्यास करना।
 (2) व्याकरण/भाषा को संदर्भ में प्रस्तुत करना शिक्षार्थियों के संज्ञान में लाना व प्रयोग करने के योग्य बनाना तथा बाद में उनका ध्यान इसके नियमों की ओर दिलाना।
 (3) व्याकरण पुस्तक अथवा अभ्यास पुस्तिका से व्याकरण के नियमों को प्रस्तुत करना और शिक्षार्थियों को हल करने के लिए अभ्यास कार्य देना।
 (4) व्याकरण से जुड़े प्रश्न पठन सामग्री अथवा किसी वृत्तान्त से लिए जाते हैं और अभ्यास द्वारा सीखे जाते हैं।
150. अधिगम के सिद्धान्त के रूप में रचनावाद का विश्वास है
 (1) बच्चे कक्षाकक्ष शिक्षण के माध्यम से जीवन ज्ञान प्राप्त करते हैं।
 (2) भाषा संरचनात्मक अभ्यास के द्वारा सीखी जाती है।
 (3) सभी शिक्षार्थी एक ही तरह से सीखते हैं।
 (4) बच्चे अपने पूर्व ज्ञान से जोड़कर सीखते हैं।

ANSWER KEY

Child Development and Pedagogy

1. (3)	2. (2)	3. (1)	4. (4)	5. (2)
6. (4)	7. (1)	8. (1)	9. (3)	10. (3)
11. (2)	12. (3)	13. (4)	14. (2)	15. (2)
16. (2)	17. (2)	18. (3)	19. (4)	20. (3)
21. (2)	22. (4)	23. (2)	24. (3)	25. (3)
26. (3)	27. (1)	28. (2)	29. (3)	30. (1)

Mathematics & Science

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

Language: English

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

Language: Hindi

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

CTET Solved Paper (Answers with Explanation)

Paper-2
20th December 2021

Child development and Pedagogy

1. Option (3) is correct.

Explanation: The relationship between learning and development:

- Learning is the gaining of knowledge, skills, and attitudes.
- Development is the expansion and deepening of knowledge in line with one's development goals.

According to Vygotsky:

Learning occurs anytime in everyday life. His theory of Zone of Proximal Development (ZPD) expanded learning and development, which states that learning precedes development processes.

According to Vygotsky's theory of development:

Social interaction between a learner and someone more knowledgeable (more knowledgeable others, MKO) is necessary for successful social learning and social development. That is why learning to use social development theory in a classroom can help students understand ideas more quickly.

2. Option (2) is correct.

Explanation: Developmental plasticity is a general term referring to changes in neural connections during development due to environmental interactions and neural changes induced by learning in the initial stages of development. A child creates most of these connections from birth to early childhood.

Developmental plasticity describes:

The behavioral, anatomical physiological changes in the developmental process of an organism during the life span which is majorly influenced by external environmental factors or other internal physiological factors, and that occur through gene-environment interactions.

Hence, environment and experience play an integral part in the development of plasticity in humans.

3. Option (1) is correct.

Explanation: Piaget's theory of childhood development is discontinuous because it defines development in terms of stages. Discontinuous development happens in four stages (sensorimotor, pre-operational, concrete operational, and formal operational).

The discontinuity approach gives rise to "stage theories," for example, rapid

changes or shifts in puberty when a child becomes a man or a woman suggesting that the individual goes through rapid changes as they step up to a different developmental stage where change is sudden rather than gradual.

4. Option (4) is correct.

Explanation: In the Authoritative parenting style,

The parents are nurturing, responsive, and supportive but they set firm limits for their children. They define rules to control children's behavior. They listen to a child's viewpoint (discussing), but do not always accept it (reasoning).

Experts believe that authoritative parents are more likely to raise confident kids who achieve academic success. They have better social skills and are more capable of problem-solving.

An authoritative approach to parenting requires parents to: Listen to the Child but establish Clear Rules and offer a single warning for minor issues.

To Validate a Child's Emotions by Considering his Feelings.

5. Option (2) is correct.

Explanation: According to Piaget, the learning process involves the following:

- **Assimilation:** Attempting to interpret current information in the mental structure of pre-existing knowledge.
- **Accommodation:** modifying the pre-existing knowledge because of new experiences.

While accommodation seeks to create new schemas, assimilation seeks to relate current information to old cognitive structures (schemas or pocket of informations).

6. Option (4) is correct.

Explanation: Conservation of numbers is a mathematical concept first identified by Jean Piaget in the mid-twentieth century. It is the recognition by a young child that quantity does not change with physical rearrangement.

Conservation is the logical thinking ability to recognize that the counting and quantity for a set group of objects stay the same no matter whether they are spread out or close together. In the stage of Concrete Operational Stage (7 to 11 Years) children begin to understand the concept of conservation.

7. Option (1) is correct.

Explanation: Vygotsky emphasized the importance of cultural tools which provides support to thinking such as reasoning and problem-solving, and psychological tools, such as language, signs, and symbols furthering development.

He believed that just as physical tools extend our physical abilities, mental tools extend our mental abilities, enabling us to solve problems and create solutions in the modern world. Cultural tools include both technical tools such as books, media, computers, and social software, and psychological tools such as language, signs, writing, and symbols.

8. Option (1) is correct.

Explanation: Lev Vygotsky's idea, 'Zone of Proximal Development' supports the theory of collaborative learning. Here, with the support of each other, learners accomplish tasks that are difficult to achieve individually.

The 'Zone of Proximal Development' is defined as the space between what a learner can do without assistance (student's potential) and what a learner can do with adult guidance or in collaboration with more capable peers. Learning occurs in the zone of proximal development after the identification of current knowledge.

9. Option (3) is correct.

Explanation: In stage 5 of post-conventional morality by Kohlberg, people begin to account for the differing values, opinions, and beliefs of other people.

Rules of law are important for maintaining a society, but members of the society should agree upon these standards considering the rights and values that a society ought to uphold. They then evaluate existing societies in terms of these prior considerations.

For Example

- **Stage 5 (Social contract and Individual rights):** The man should steal the drug because laws can be unjust, and you must consider the whole situation.
- **Stage 6 (Universal Principles):** Moral behavior is based on self-chosen ethical principles. The man should steal the drug because life is more important than property.

10. Option (3) is correct.

Explanation: Progressive education is a pedagogical movement that began in the late 19th century and

has persisted in various forms till the present.

The teacher is actively engaged in learning through formal study, direct observation, and participation. A teacher needs to understand children's learning and development in the context of family, community, and culture. Empathy allows teachers to understand students' perspectives, read their nonverbal signals, and react with concern to students needing help. A teacher must be real and caring towards a student's problems.

11. Option (2) is correct.

Explanation: IQ tests inaccurately measure an individual's intelligence and cause problems including low confidence, unrealistic expectations, and just a flawed understanding of a person's potential.

Sternberg's three-part theory of intelligence suggests that traditional intelligence tests have three major limitations:

- The IQ tests fail to measure creative insight,
- They ignore the practical side of intelligence, and
- Since IQ tests are limited to a fixed schedule, they wrongly equate intelligence.

When a child has been labelled, that label will become a part of his or her identity.

Labels often do more damage than good by putting children in boxes. Cultural bias is the tendency to interpret & judge a child based on the distinctive values, beliefs, and other characteristics of the society or community to which he belongs.

Hence, instability of scores, cultural bias in tests, product-oriented tests, and labelling of children are the major concerns about using the concept of intelligence quotient to measure Children's intelligence.

12. Option (3) is correct.

Explanation: Howard Gardner's theory of Intrapersonal intelligence:

- It is the capacity to understand oneself.
- To have an effective working model of oneself including desires, fears, and capacities.
- And to use such information effectively in regulating one's own life. Characteristics of Intrapersonal Intelligence
- Engage in self-analysis.
- Enjoy spending time alone.
- Understand emotions.
- Reflect on goals and accomplishments.
- Make life plans.
- Think about the deeper meaning of life.
- Perform religious or spiritual practices.

13. Option (4) is correct.

Explanation: Gender flexibility refers to an open-minded attitude toward gender roles. It can be achieved in a classroom by:

- Encouraging all students to participate in extracurricular activities regardless of gender, creating a gender-inclusive curriculum, and making behavioral changes.
- Ensure any educational materials used show genders in equal measure.
- Mix children (both boys and girls) to work on projects together.
- Explore gender concepts and roles from different communities.
- Help students identify instances of gender bias, through awareness activities or historical events, laws, and cultural changes.

14. Option (2) is correct.

Explanation: Classrooms consist of students with varied learning profiles, diverse grasping abilities and different interests.

Teachers must accommodate diversity while imparting lessons. This approach helps in a collaborative learning atmosphere and achieving meaningful learning outcomes.

To accommodate the diverse abilities of students, teachers can adopt these measures:

- Regulate the pace of learning.
- Give elective assignments to high achievers.
- Give choices and empower students.
- Use spontaneously designed assessments.
- Use of technology.

Having an elastic, accepting, and caring mindset, providing direct instruction, creating time for collaboration, and teaching advocacy will ensure the best learning outcomes in a classroom with diverse learners.

15. Option (2) is correct.

Explanation: Formative assessment by teachers offers qualitative feedback to learners by monitoring their progress throughout the teaching-learning process by identifying their learning difficulties.

Oral testing, anecdotal records, portfolios, class test, etc. are the tools of formative assessment.

Teachers will understand the exact needs of students while students will learn about their strengths and weak points.

The benefits of formative assessment include:

- Defined learning goals.
- Increased rigor.
- Improved academic achievement.
- Enhanced student motivation.
- Increased student engagement.
- Focused and targeted feedback.
- Personalized learning experiences.
- Self-regulated learners.

16. Option (2) is correct.

Explanation: Multiculturalism promotes the integration of diverse cultures and the sharing of one's ideas and perspectives.

- It helps understand unique cultural and ethnic heritage.
- It helps in the development of culturally responsible and responsive curricula. It promotes the attitudes, skills, and knowledge that function in various cultures.
- It helps eliminate racism and discrimination in society.
- It gives students a sense of comfort and makes them feel safe with these differences later in life.

17. Option (2) is correct.

Explanation: Stereotypes can often lead to prejudices about a person that is not based on experience or reason and could lead to favoring one person or group against another.

Judging based on race, politics, sex, and gender is the most common stereotype.

Many people are well-to-do criticize the poor and blame them for their laziness, lack of intelligence, or willingness to make bad decisions.

Top-down learning refers to learning explicit knowledge first and then learning implicit knowledge on that basis. It can limit creativity and slow down problem-solving, so it may not be the best choice for greater flexibility and responsiveness.

18. Option (3) is correct.

Explanation: Convergent thinking happens when the solution to a problem can be deduced by applying established rules and logical reasoning. This involves solving a problem within the context of known information and reaching a solution based on logical inference.

It obstructs creativity as it does not let learners think in divergent ways.

19. Option (4) is correct.

Explanation: People with disabilities need to be treated as normal human beings.

People with disabilities do not require any sympathy, pity, or mercy. All they require is an opportunity to live a life with dignity.

Sympathy connotes dependency, suffering, compassion and how we interact with other people.

20. Option (3) is correct.

Explanation: Hearing impairment leads to partial or complete loss of hearing abilities in a person.

A hearing impaired has a tough time adjusting to a normal classroom.

They will have difficulty grasping the concepts discussed in the class like a normal child.

So, the teacher must modify teaching strategies as per the child's needs to promote inclusion.

A teacher can avoid talking too rapidly or using sentences that are too complex. They should slow down a little, and pause between sentences or phrases, to make children understand better.

Keeping hands away from the face while talking.

Hence, negative comments on errors committed will lead to discomfort and loss of confidence and social exclusion in children.

21. Option (2) is correct.

Explanation: As a part of Social-emotional learning, students learn crucial life skills, the ability to understand themselves, develop a positive self-image, take responsibility for their actions, and forge relationships with the people around them.

Social-emotional competence develops when children make responsible decisions based on: their own emotions, understand the feelings of others, consider the impact of their actions on others, and value their relationships.

For an educational institution, Social emotional awareness reduces emotional distress, leads to fewer disciplinary issues, motivates the student to attend school as he adapts and accepts the environment and results in improved class engagement, test scores and better grades.

22. Option (4) is correct.

Explanation: Conceptual clarity is the result of conceptual learning which helps students to apply the acquired knowledge and skills in real-life.

It promotes the intellectual quality of all students by providing deep and connected learning experiences. This engages students in higher-order thinking and facilitates the development of problematic knowledge.

23. Option (2) is correct.

Explanation: Critical thinking increases comprehension skills to evaluate the logical structures of texts. Critical thinking abilities help to understand and appraise a situation using all relevant facts and information.

Independent thinkers use their advanced critical thinking and problem-solving skills to develop effective strategies for various situations. These learners are comfortable and confident about expressing their thoughts, which makes them reliable resources and decision-makers.

24. Option (3) is correct.

Explanation: An error is a form in learner language that is inaccurate. An error in education refers to the difference between what a test score indicates and a student's actual knowledge and abilities.

In the process of making mistakes and correcting them, students learn

persistence in learning new skills and are not afraid of failure. Mistakes and errors made by students should be seen as opportunities to understand their thinking.

Hence, committing errors is seen as a normal and acceptable part of cognitive development.

25. Option (3) is correct.

Explanation: Emotion is a complex experience of consciousness, bodily sensation, and behavior that reflects the personal significance of a thing, an event, or a situation.

Emotions influence cognitive skills such as attention, memory, executive function, decision-making, critical thinking, problem-solving and regulation, all of which play a key role in learning.

Emotions, as stated, affect the internal motivation of students to learn based on interest and curiosity in learning. Hence, emotions give meaning to learning.

26. Option (3) is correct.

Explanation: Teachers can encourage students to learn from their mistakes by making them see mistakes as a source of understanding.

Improve motivation and self-esteem by responding to and overcoming mistakes.

Allow mistakes through the learning atmosphere.

Allow a variety of mistakes.

27. Option (1) is correct.

Explanation: Master-oriented learners have the defined goal of learning and mastering the task according to self-set standards.

These Learners are focused on developing new skills, improving, and acquiring additional knowledge. This orientation focuses on ensuring a student's grasp of a given concept is complete regardless of the time and resources needed to achieve proficiency.

28. Option (2) is correct.

Explanation: Good problem solvers tend to have a lack of response set as they will think divergently and try to analyze every outcome of the given problem before responding or solving a problem.

Perceptual, emotional, intellectual, expressive, environmental, and cultural factors may hinder problem-solving. In problem-solving, the end goal is to solve a problem by overcoming every barrier on the way. The response set is considered a barrier to problem-solving.

29. Option (3) is correct.

Explanation:

- Competition can be effective when it leads to healthy results.
- Unhealthy competition can easily affect morale and confidence.

- It creates winners and losers which leads to stress and anxiety.
- It leads to disappointment.
- Unhealthy competition leads to lower engagement.

30. Option (1) is correct.

Explanation: In meaningful learning, a teacher should respect the needs, interests, and emotions of all the students, so that they can learn freely in their environment. Meaningful learning is not instructional-based learning, students can learn conceptually by constructing knowledge from various sources.

Learning requires critical thinking skills. It requires the learner to be proactively curious about everything. It emphasizes hands-on learning and students actively participating in lessons.

The process of meaningful learning requires learners to be the center of the learning process. Learning should be social, emotional, and inclusive and assessment based.

Mathematics & Science

31. Option (2) is correct.

Explanation: Since composite numbers between 101 and 120 are 102, 104, 105, 106, 108, 110, 111, 112, 114, 115, 116, 117, 118, 119.

So, total numbers of composite number between 101 and 120 is 14.

32. Option (3) is correct.

Explanation: Given rational numbers are $-\frac{5}{6}$ and $\frac{3}{8}$.

$$\text{Now, } \frac{5}{6} < \frac{7}{8} < \frac{8}{9}$$

$$\Rightarrow \frac{-5}{6} > \frac{-7}{8} > \frac{-8}{9}$$

So, $\frac{-7}{8}$ and $\frac{-8}{9}$ do not lie between

$$\frac{-5}{6} \text{ and } \frac{3}{8}.$$

Thus option (1) and (2) are incorrect.

$$\text{and } \frac{1}{3} < \frac{3}{8}$$

$$\Rightarrow \frac{-5}{6} < \frac{-1}{3} < \frac{3}{8}$$

So, $\frac{1}{3}$ is a rational number between

$$\frac{-5}{6} \text{ and } \frac{3}{8}$$

$$\text{and } \frac{3}{8} < \frac{5}{6}.$$

So, $\frac{5}{6}$ is not lie between $\frac{-5}{6}$ and $\frac{3}{8}$.

33. Option (3) is correct.

Explanation:

$$\text{Given, } 504 = 2^p \times 3^q \times 7^r$$

$$\Rightarrow 2 \times 2 \times 2 \times 3 \times 3 \times 7$$

$$= 2^p \times 3^q \times 7^r$$

$$\Rightarrow 2^3 \times 3^2 \times 7^1 = 2^p \times 3^q \times 7^r$$

By comparing power of individuals, we get

$$p = 3, q = 2, r = 1$$

So, $2p + q - r = 2 \times 3 + 2 - 1 = 7$

34. Option (1) is correct.

Explanation: We have to simplify

$$(\sqrt[3]{8^4} \times \sqrt[3]{125^2}) \div \sqrt{4^3}$$

$$= \frac{8^{4/3} \times 125^{2/3}}{4^{3/2}}$$

$$= \frac{(2^3)^{4/3} \times (5^3)^{2/3}}{(2^2)^{3/2}}$$

$$= \frac{2^4 \times 5^2}{2^3}$$

$$= 2^1 \times 5^2$$

$$= 2 \times 25$$

$$= 50$$

35. Option (1) is correct.

Explanation: We know that,
dividend = divisor $\times$ quotient + remainder

So, First number = $31 \times 9 + 18 = 297$

Since, we know,

$$1485 \times 33 = \text{first number} \times \text{second number}$$

$$\Rightarrow 297 \times \text{second number} = 1485 \times 33$$

$$\Rightarrow \text{Second number} = \frac{1485 \times 33}{297}$$

$$= 165$$

36. Option (2) is correct.

Explanation: Given, the numbers 26, 24, 56 and 49

Since, $26 - x : 24 - x :: 56 - x : 49 - x$

$$\Rightarrow \frac{26 - x}{24 - x} = \frac{56 - x}{49 - x}$$

$$\Rightarrow (26 - x)(49 - x) = (56 - x)(24 - x)$$

$$\Rightarrow 1274 - 75x + x^2 = 1344 - 80x + x^2$$

$$\Rightarrow 80x - 75x = 1344 - 1274$$

$$\Rightarrow 5x = 70$$

$$\Rightarrow x = 14$$

So, $\frac{2x - 6}{2} = \frac{2 \times 14 - 6}{2}$

$$= \frac{22}{2}$$

$$= 11$$

37. Option (3) is correct.

Explanation:

Given polynomials, $x^2 + 7x + 12$ and $x^2 - 5x - 36$

Now, $x^2 + 7x + 12 = (x + 3)(x + 4)$ and $x^2 - 5x - 36 = (x + 4)(x - 9)$

So, $(x + 4)$ is a common factor.

38. Option (3) is correct.

Explanation: Given

$$4 - \frac{2(x-4)}{3} = \frac{1}{2}(2x+5)$$

$$\Rightarrow 4 = \frac{3(2x+5) + 4(x-4)}{6}$$

$$\Rightarrow 6x + 15 + 4x - 16 = 24$$

$$\Rightarrow 10x = 25$$

$$\Rightarrow x = \frac{5}{2}$$

then $\frac{2x+1}{2} = \frac{2 \times \frac{5}{2} + 1}{2}$

$$= \frac{6}{2}$$

$$= 3$$

39. Option (3) is correct.

Explanation: Given,

$$(3x^2 - 6x - 4) + (4x - 3 - x^2) - (5 + x - 2x^2)$$

$$= Ax^2 + Bx - C$$

$$\Rightarrow (3 - 1 + 2)x^2 + (-6 + 4 - 1)x + (-4 - 3 - 5)$$

$$= Ax^2 + Bx - C$$

$$\Rightarrow 4x^2 - 3x - 12 = Ax^2 + Bx - C$$

By comparing co-efficients, we get

$$A = 4, B = -3, C = 12$$

So, $(A + B - C) = 4 - 3 - 12 = -11$

40. Option (2) is correct.

Explanation: Given, $x + y = 3$ and $x^2 + y^2 = 29$

Since $(x + y)^2 = x^2 + y^2 + 2xy$

$$\Rightarrow 9 = 29 + 2xy$$

$$\Rightarrow 2xy = -20$$

$$\Rightarrow xy = -10$$

Now, $\frac{1}{x} + \frac{1}{y} = \frac{x + y}{xy}$

$$= \frac{3}{-10} = -\frac{3}{10}$$

41. Option (3) is correct.

Explanation: The external and internal radii of cylindrical pipe are 16 cm, 15 cm and height = 63 cm.

Now,

Volume (V)

$$= \pi(R^2 - r^2)h$$

$$= \frac{22}{7} \times (16^2 - 15^2) \times 63$$

$$= 22(256 - 225) \times 9$$

$$= 198 \times 31$$

$$= 6138 \text{ cm}^3$$

42. Option (4) is correct.

Explanation: Given, the perimeter of a rhombus-shaped field is 400 m and length of one of the diagonals = 160 m.

Since Perimeter = $2\sqrt{d_1^2 + d_2^2}$

$$\Rightarrow 400 = 2\sqrt{160^2 + d_2^2}$$

$$\Rightarrow \sqrt{25600 + d_2^2} = 200$$

$$\Rightarrow d_2^2 = 40,000 - 25,600$$

$$= 14,400$$

$$\Rightarrow d_2 = 120 \text{ m}$$

So, Area = $\frac{1}{2}d_1 \times d_2$

$$= \frac{1}{2} \times 120 \times 160$$

$$= 9600 \text{ m}^2$$

43. Option (4) is correct.

Explanation: Given,

Area of trapezium = 1625 cm^2

$$\Rightarrow \frac{1}{2} (\text{sum of parallel sides}) \times h$$

$$= 1625$$

$$\Rightarrow (\text{sum of parallel sides}) \times 25$$

$$= 2 \times 1625$$

$$\Rightarrow \text{sum of parallel sides}$$

$$= 2 \times 65$$

$$= 130 \text{ cm}$$

Now,

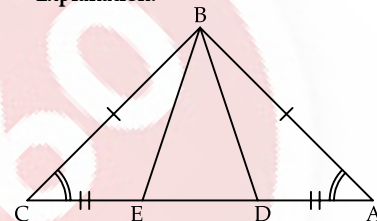
Perimeter = Sum of parallel sides + Sum of non-parallel sides

$$\Rightarrow 188 = 130 + \text{Sum of non-parallel sides}$$

$$\Rightarrow \text{Sum of non-parallel sides} = 58 \text{ cm}$$

44. Option (2) is correct.

Explanation:



Given, $EC = AD$

$$\Rightarrow EC + DE = AD + DE$$

$$\Rightarrow CD = AE \quad \dots(i)$$

In $\triangle ABE$ and $\triangle CBD$

$$AB = CB \quad (\text{Given})$$

$$\angle BAE = \angle BCD$$

(by properties)

$$AE = CD \quad [\text{by (i)}]$$

By SAS

$$\Rightarrow \triangle ABE \cong \triangle CBD$$

45. Option (3) is correct.

Explanation: We know

Sum of all interior angles = $(n - 2) \times 180^\circ$

$$\Rightarrow (n - 2) \times 180^\circ = 1800^\circ$$

$$\Rightarrow n - 2 = 10$$

$$\Rightarrow n = 12$$

Now, $\frac{n+4}{2} = \frac{12+4}{2}$

$$= 8$$

46. Option (3) is correct.

Explanation: Given the number of faces, vertices and edges of a polyhedron A are $x, 10, 15$

Since, $F + V = E + 2$

$$\Rightarrow x + 10 = 15 + 2$$

$$\Rightarrow x = 17 - 10$$

$$= 7$$

For polyhedron B

$$12 + y = 30 + 2$$

$$y = 32 - 12$$

$$= 20$$

Now, $x + y = 7 + 20$

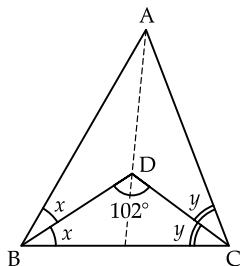
$$= 27$$

47. Option (1) is correct.

Explanation: In $\triangle ABC$

$$2x + 2y + \angle A = 180^\circ$$

$$\Rightarrow x + y = 90^\circ - \frac{\angle A}{2}$$



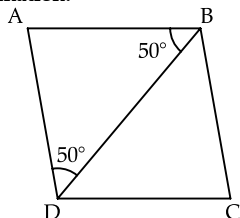
$$\text{Now, } 102^\circ = \angle A + x + y$$

$$\Rightarrow 102^\circ = \angle A + 90^\circ - \frac{\angle A}{2}$$

$$\Rightarrow 12^\circ = \frac{\angle A}{2}$$

$$\Rightarrow \angle A = 24^\circ$$

48. Option (3) is correct.

Explanation:

Given rhombus ABCD

$$\angle ADB = 50^\circ$$

$$\Rightarrow \angle ADB = \angle ABD = 50^\circ$$

$$\begin{aligned} \text{So, } \angle A &= 180^\circ - (\angle ADB + \angle ABD) \\ &= 180^\circ - (50^\circ + 50^\circ) \\ &= 80^\circ \end{aligned}$$

Since, we know

$$\angle A = \angle C \Rightarrow \angle C = 80^\circ$$

$$\text{So, } \angle DCB = 80^\circ$$

49. Option (2) is correct.

Explanation: Two dice are thrown

So, total number of possible outcomes

$$= 6 \times 6 = 36$$

Now, E = (3, 4), (3, 5), (3, 6), (1, 6), (2, 5), (2, 6), (4, 3), (4, 4), (4, 5), (4, 6), (5, 2), (5, 3), (5, 4), (5, 5), (5, 6), (6, 1), (6, 2), (6, 3), (6, 4), (6, 5), (6, 6)

number of favourable outcomes = 21

So, P(sum of numbers atleast 7)

$$= \frac{21}{36} = \frac{7}{12}$$

50. Option (3) is correct.

Explanation: Given data, 13, 14, 15, 11, 9, 9, 8, 7, 16, 15, 5, 6, 16, 25, 16, 23, 28, 17

Since, arrangement of data in ascending order

5, 6, 7, 8, 9, 9, 11, 13, 14, 15, 15, 16, 16, 16, 17, 23, 25, 28

Now, Median

$$= \frac{\left(\frac{18}{2}\right)^{\text{th}} \text{ term} + \left(\frac{18}{2} + 1\right)^{\text{th}} \text{ term}}{2}$$

$$\Rightarrow x = \frac{(9^{\text{th}} \text{ term} + 10^{\text{th}} \text{ term})}{2}$$

$$\Rightarrow x = \frac{14 + 15}{2} = 14.5$$

If 6 is replaced by 19 and 13 is replaced by 31 then

31, 14, 15, 11, 9, 9, 8, 7, 16, 15, 5, 19, 16, 25, 16, 23, 28, 17

Again, arrange data in increasing order.

5, 7, 8, 9, 9, 11, 14, 15, 15, 16, 16, 16, 17, 19, 23, 28, 31

$$\text{Median} = \frac{(9^{\text{th}} \text{ term} + 10^{\text{th}} \text{ term})}{2}$$

$$\text{Median} = \frac{(15 + 16)}{2}$$

$$\text{Median} = \frac{31}{2}$$

$$\text{Median} = 15.5$$

$$y = 15.5$$

$$\text{So, } 3x - y = 3 \times 14.5 - 15.5$$

$$3x - y = 43.5 - 15.5$$

$$3x - y = 28.$$

51. Option (4) is correct.

Explanation: In order to incorporate Jean Piaget's framework in teaching mathematics, a teacher must give enough manipulatives to work with in order to teach a concept. Children learn by doing rather than thinking about things. A manipulative is a tool that helps students quickly integrate knowledge through manipulation. It is a tool that the teacher utilizes to provide students with real-world experience.

52. Option (2) is correct

Explanation: A lesson plan in mathematics may be designed to make teaching systematic and well organised, to introduce fresh ideas or reiterate already established ones, to help students become more adept at using formulas, equations and other mathematical tools to solve issues, and to encourage critical thinking. Mathematics requires logical thinking and reasoning. A lesson plan in mathematics may include practical examples, difficult problems and interesting activities to pique students' interest in the topic. Thus, developing the habit of undertaking immediate corrective measures is not the characteristic of mathematical lesson plan.

53. Option (4) is correct

Explanation: An effective mathematics teacher is characterized by his/her competence and confidence

in the subject matter, which requires a thorough understanding of the material. Rather than simply teaching procedures, a skilled teacher will impart conceptual knowledge that helps students connect new concepts to what they already know. Creating a stimulating classroom environment that promotes learning is also an important quality for a math teacher, as is a commitment to ongoing learning and exploration of new mathematical knowledge and teaching strategies. By making connections between concepts and real-life situations, a skilled math teacher helps students develop a deeper understanding of the subject matter.

54. Option (4) is correct

Explanation: The practice that is not suitable for teaching mathematics at the upper primary level is using only formal algorithms, as it promotes rote learning and does not allow the students to discover. Using only formal algorithms in teaching mathematics can limit students' understanding of the subject and hinder their ability to think critically and solve problems. It results in rote memorization of procedures without a deeper understanding of the underlying mathematical concepts. This can lead to difficulties when students are presented with unfamiliar problems or variations of problems that they have learned to solve problems using a specific algorithm.

55. Option (1) is correct

Explanation: The most relevant question to be included in the test is option (1).

It will help Mr. Alok to assess the student's ability to identify situations of non-proportional thinking. Non-proportional thinking refers to the inability to understand or use proportional relationships in mathematics. In a proportional relationship, two quantities are related in such a way that as one quantity changes, the other changes in a consistent and predictable manner. For example, if the price of an item is proportional to its weight, then doubling the weight will double the price.

Students who struggle with non-proportional thinking may have difficulty understanding or solving problems that involve ratios, rates and percentages. They may also have difficulty recognizing when two quantities are proportional or when they are not.

56. Option (3) is correct

Explanation: Open-ended problems are an important component of the teaching-learning process of mathematics. These are problems that have multiple solutions or paths to a solution and they require students to use critical thinking skills to arrive at an answer. This encourages them to think creatively and develop their problem-solving skills. Open-ended problems require students to analyse the problem, determine what information is important and then develop a strategy to solve it. This encourages collaboration and teamwork. Therefore, open-ended tasks in maths lessons promote imaginative thinking, innovative thinking and equal opportunity in the classroom.

57. Option (2) is correct

Explanation: As stated in statement (a), it is true that every mathematical concept leads to more mathematical concepts. Statement (b) claims that mathematical concepts develop from abstract to concrete, is untrue because they are taught in phases, from the concrete to the abstract. Given that teachers should always begin lessons by covering some fundamental concepts before moving on to more in-depth explanations, assertion (c) claims that mathematical ideas develop from specific to generic, is correct.

58. Option (2) is correct

Explanation: Mean will be affected by one or two extremely large or extremely small values outside the range of the rest of the data. This is because the mean is a measure of central tendency that is calculated by adding up all the values in the data set and then dividing by the number of values. If there are one or two values that are significantly larger or smaller than the rest of the values, they can greatly influence the calculated mean.

59. Option (4) is correct

Explanation: The teacher emphasizes the use of non-standard units in measurement activities as a way of introducing standard units of measurement later. The activities include using a set of 15 wedges to measure different angles, overlapping cut outs of various angles to identify angles with equal measures and measuring the length of a straight-line segment using pencils of varying lengths.

60. Option (2) is correct

Explanation: Activities are an important tool for learning in elementary school mathematics classrooms because engaging in activities encourages strategic mathematical thinking and development of computational fluency that is they provide students with opportunities to engage with mathematical concepts in a hands-on and interactive way, allowing them to develop a deeper understanding of the subject. They also help to motivate students to practice and tool for teachers to assess the students.

Activities also help students to build problem-solving skills, to collaborate with their peers and to develop a positive attitude towards maths. Furthermore, activities can make maths more engaging and enjoyable for students, which can lead to increased motivation and a greater desire to learn.

Thus, statements (a) and (b) are correct.

61. Option (4) is correct

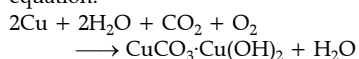
Explanation: When two plane mirrors are positioned parallel to each other in a trial room of a garment shop, an infinite number of images can be formed. This is due to the phenomenon of multiple reflections, where each mirror reflects the image of the person trying on the clothes back and forth between the mirrors. As the reflected images bounce back and forth, they create an infinite series of images that appear to stretch out into infinity. In the context of a garment shop, the infinite reflections can help customers to see themselves from multiple angles and get a better sense of how the clothes fit and look on them.

62. Option (1) is correct

Explanation: For the simple reason that copper is below hydrogen in the reactivity series, it will not react with hydrochloric acid. The hydrogen in HCl cannot therefore be replaced by copper. As a result, there won't be a reaction when copper (Cu) and hydrochloric acid (HCl) are combined.

63. Option (2) is correct

Explanation: Rainwater, due to its natural acidity caused by the presence of carbon dioxide (CO₂), can cause copper to corrode and form copper compounds. When copper comes into contact with acidic rainwater, a chemical reaction occurs, which can be represented by the following equation:



In this reaction, copper reacts with oxygen (O₂) and water (H₂O) to form copper hydroxide [Cu(OH)₂] and copper carbonate [CuCO₃], resulting in the formation of greenish coating on the copper's surface.

64. Option (4) is correct

Explanation: Baking soda is basic in nature and will turn red litmus paper blue.

Vinegar is acidic in nature and will turn blue litmus paper red.

Lemon juice is also acidic in nature and will turn blue litmus paper red. Bleach has a pH of about 11, making it a very basic or alkaline solution. It will turn red litmus paper blue when placed on it. The colour of the blue litmus paper won't alter.

65. Option (1) is correct

Explanation: Camphor and magnesium can both burn with a flame, although the characteristics of the flames may differ.

When camphor burns, it typically produces a bright, white flame with a distinctive odor.

When magnesium burns, it produces a very bright, intense white flame that can be blinding to look at directly. The flame is very hot and can reach temperatures of up to 3,100 °C, which makes it useful for various industrial and scientific applications. Magnesium is often used as a component in flares, fireworks and incendiary devices.

66. Option (3) is correct

Explanation: Cloning is the process of creating an exact genetic replica of a living organism, cell, or tissue. Statements (B) and (C) are true that is cloning results in exact replication of a cell, a living part or an organism and results in large number of offspring. Statement (A) is not true as cloning does not occur only in animals. Cloning can also be done in plants and bacteria.

In plants, cloning is often done through a process called vegetative propagation, which involves taking a cutting from a parent plant and rooting it to produce a new plant that is genetically identical to the parent. In bacteria, cloning is a natural process that involves the replication of DNA sequences to produce identical copies of the bacteria.

67. Option (1) is correct

Explanation: Both A and R are correct and R is the correct explanation for A. The reason a bottle filled with hot water and capped tightly can get crushed after some time is due to the difference in pressure inside and

outside the bottle. When the bottle is capped tightly, the air inside the bottle is trapped and can't escape. As the hot water inside the bottle begins to cool, the air inside the bottle also cools and contracts, creating a lower pressure inside the bottle than the surrounding air outside.

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

Explanation: Statement (4) is untrue. Because nickel and cobalt can be magnetised and are attracted to magnets, they are both ferromagnetic metals.

The magnetic moments of a ferromagnetic material's atoms line up with the magnetic field's direction when it is exposed to one. The substance becomes magnetised and attracts to the magnet as a result of the alignment of magnetic moments. Cobalt and nickel both have significant magnetic characteristics.

Thus, ferromagnetic metals like nickel and cobalt can be drawn to magnets.

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

Explanation: Sharpness of the image is reduced when the top part of the convex lens is covered with a black/opaque paper. In the case of a convex lens, the upper portion of the lens may play a significant role in refracting light rays to produce a clear and sharp image. Covering this part of the lens can cause the image to appear blurred or out of focus, especially if the lens is of poor quality or if the light source is not strong enough.

In summary, covering the top part of a convex lens with a black or opaque paper can reduce the sharpness of the image by obstructing or scattering some of the light rays passing through the lens.

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

Explanation: Average speed of the car is given by total distance covered divided by the total time taken. Time taken is

7 hours and 45 minutes

$$= \left(7 + \frac{45}{60} \right) \text{ hours}$$

$$= \frac{31}{4} \text{ hours}$$

average speed of the car

$$= \frac{372}{\frac{31}{4}} = \frac{372 \times 4}{31}$$

$$= 48 \text{ km/hr}$$

Maximum speed
= 120 km/hr.

Thus, the difference between the maximum speed and the average speed is

$$120 - 48 = 72 \text{ km/hr.}$$

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

Explanation: Statement (2) is incorrect. Tsunamis typically have a Richter scale magnitude greater than 7.5, while most earthquakes are the result of abrupt movements of tectonic plates and volcanic activity, which can cause tremors in the surrounding region. The scientific study of earthquakes is known as Seismology.

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

Explanation: When three objects of the same size but different densities are placed in a liquid, the buoyant force acting on each object follows the order of $B < C < A$. This is because object B only displaces $\frac{1}{4}$ th of its volume in the liquid, while object C displaces $\frac{1}{2}$ of its volume and object A is completely submerged in the liquid. Archimedes' principle states that the magnitude of the buoyant force on an object is equal to the weight of the fluid displaced by the object. The volume of the object submerged in the liquid is a key factor in determining the amount of fluid displaced and therefore the magnitude of the buoyant force. As the volume of the object submerged increases, so does the buoyant force. The density of the fluid also plays a role in determining the buoyant force acting on an object.

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

Explanation: Bakelite is a type of plastic that was commonly used in the past for a variety of purposes, including making handles for cookware such as cookers, pots and pans. This was because Bakelite is a heat-resistant material that can withstand high temperatures without melting or deforming.

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

Explanation: The vitamins that also acts as antioxidants are vitamin A, C and E. Antioxidants are substances that prevent or slow down oxidative damage to cells caused by free radicals.

Vitamin C: This water-soluble vitamin is a powerful antioxidant that helps protect cells from oxidative damage. It also helps regenerate other antioxidants in the body, such as vitamin E.

Vitamin E: This fat-soluble vitamin protects cell membranes from oxidative damage by neutralizing free radicals. It works in conjunction with vitamin C to provide antioxidant protection.

Vitamin A: This fat-soluble vitamin is important for maintaining healthy vision and skin and it also acts as an antioxidant, protecting cells from oxidative damage.

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

Explanation: A and C are plant cells and B is animal cell.

The table below compares some of the features of plant and animal cells.

Features	Plant cell	Animal cell
Cytoplasm	Present	Present
Nucleus	Present	Present
Cell wall	Present	Absent
Cell membrane	Present	Present
Chloroplast	Present	Absent

The cell wall is a characteristic feature of plant cells, composed of cellulose, which serves to provide structure, support and protection to the cell. Conversely, animal cells lack a cell wall. Another distinct feature of plant cells is the presence of chloroplasts, specialized organelles responsible for carrying out photosynthesis and generating energy in the form of glucose. Not all cells in a multicellular plant contain chloroplasts. In contrast, animal cells do not possess chloroplasts.

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

Explanation: Measles is a disease that results from infection by the highly contagious measles virus. Malaria, on the other hand, is caused by a parasite called Plasmodium that is transmitted to humans via the bite of infected female Anopheles mosquitoes. Typhoid fever, also known as typhoid, is caused by Salmonella typhi bacteria that are often spread through contaminated food and water. Lastly, Leprosy, which is also known as Hansen's disease, is caused by Mycobacterium leprae bacteria, which attack nerve endings and skin, leading to symptoms such as muscle weakness, loss of feeling in affected areas and skin lesions.

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

Explanation: Statement (1) is false because hens do not exhibit external fertilization. Hens are birds and they reproduce through internal fertilization. This means that the male bird's sperm is deposited inside the female's body and fertilization occurs internally, within the female's reproductive system. The fertilized egg then develops inside the female until it is ready to be laid as an egg. Yes, hens are oviparous animals, which means they lay eggs that hatch outside the body. After internal fertilization occurs within the hen,

the fertilized egg travels down the oviduct and is then laid by the hen.

78. Option (1) is correct

Explanation: Both the (A) and (R) are true and (R) is the correct explanation of (A).

Owls can see in low light due to their extraordinary night vision. Their eyes have been modified specifically to aid them in seeing in the dark. Their eyes are particularly sensitive to light and they have big eyes compared to the size of their bodies. Additionally, they have a large number of rod cells in their eyes, which are specialised cells that enable them to see in low light.

79. Option (1) is correct

Explanation: Maize is a source of carbohydrate and will help to increase its level in the body. Peas, soyabeans and groundnuts are a good source of several nutrients including dietary fibre, protein, vitamins and minerals. Soybeans are particularly high in protein, with one cup of cooked soybeans providing about 29 grams of protein.

80. Option (1) is correct

Explanation: Both the (A) and (R) are true and (R) is the correct explanation of (A). The speed of sound is generally faster on a hot summer day compared to a cold winter day. This is because sound travels faster through warmer air than through colder air because the density of hot air is less than the density of cold air. As the temperature of the air increases, the air molecules move faster and this causes sound waves to travel faster through the air. On the other hand, on a cold winter day, the air is typically cooler, which causes sound to travel more slowly through the air.

81. Option (3) is correct

Explanation: 'Observation in science' are a crucial part of the scientific method and it does not give unbiased truth about natural phenomena. This is because observations can be influenced by a range of factors, including the observer's subjective interpretation of what they see, their biases and the limitations of the equipment used to make the observations.

82. Option (3) is correct

Explanation: The NCF-2005 Position Paper on Teaching of Science emphasizes the importance of developing the ability to comprehend the scientific inquiry process as a vital and transferable skill that assists children in "learning to learn" science. The scientific inquiry process is a methodical and evidence-based approach to

comprehending the natural world that entails careful observation, hypothesis development, experimentation, data analysis and the correlation of findings to real-world situations. It is an essential skill that fosters systematic problem-solving and analytical thinking.

83. Option (3) is correct

Explanation: Scientific knowledge is tentative means that as new evidence is discovered and new methods are developed, scientific knowledge is continuously refined and updated. Therefore, scientific knowledge is not absolute or final, but rather it is always tentative and subject to change as new evidence becomes available.

84. Option (3) is correct

Explanation: The empirical nature of science refers to the fact that scientific knowledge is based on empirical evidence, which is gathered through observation and experimentation. Scientists use the scientific method to make observations, develop hypotheses and test them through experimentation. The results of these experiments provide empirical evidence that either supports or contradicts the initial hypothesis. The empirical nature of science means that scientific knowledge is based on objective evidence that can be observed and measured, rather than on personal opinions or beliefs.

85. Option (3) is correct

Explanation: The following methods can be used by a teacher to help pupils internalise the essence of the scientific enterprise:

- Science should be taught to students through a variety of techniques.
- Making science's nature an intrinsic element of teaching and learning.
- Stressing the historical aspects of how scientific ideas have evolved.

Memorization won't aid pupils in creating a scientific enterprise among themselves.

86. Option (1) is correct

Explanation: The most important consideration for organising remedial teaching is paying attention to individual rate progress. The aim of remedial teaching is to provide additional instruction and support to students who are struggling academically in order to help them improve their performance. Remedial teaching is targeted at students who are falling behind their peers and need extra assistance to keep up. The goal of remedial teaching is to help students

acquire the skills and knowledge that they need to succeed academically and reach their full potential.

87. Option (4) is correct

Explanation: Reena should search for conceptual gaps and teach the concept accordingly. It clearly indicates that most of the students have failed to understand the concept correctly. She should acknowledge the learning difficulties of the students, identify the areas where improvement is required and should help them to understand the concept.

88. Option (1) is correct

Explanation: Both the (A) and (R) are true and (R) is the correct explanation of (A). Discrepant events are situations in which a phenomenon occurs that contradicts students' prior understanding or expectations. By presenting discrepant events in the classroom, teachers can challenge students' misconceptions and engage them in a process of scientific inquiry. This involves asking students to observe and describe the event, generate explanations for what they have observed and test their hypotheses through further investigation and experimentation. By engaging in this process, students are forced to confront their misconceptions and revise their understanding of the phenomenon in question.

89. Option (2) is correct

Explanation: Hypothesizing is the process of formulating a hypothesis or proposed explanation for a phenomenon or set of observations. It involves using prior knowledge, observations and logical reasoning to come up with a tentative statement that can be tested through further investigation and experimentation. Asking questions is important to assess the student's ability to comprehend.

90. Option (2) is correct

Explanation: The correct statements regarding to the assessment in science are statements (C) and (D). Qualitative criteria help in meaningful assessment, that is the use of qualitative criteria can provide a more comprehensive and meaningful assessment of student performance and the learning environment. They can also help to identify areas for improvement and provide insights into the effectiveness of different teaching methods and programs. It is also important to test every concept that has been taught to the students.

Language: English

91. Option (3) is correct.

Explanation: "One doesn't need to have any faith in him as an individual and accept what he says without questioning it."

The above lines from the passage show that an individual should not have blind faith in a scientist without questioning him in his scientific theories. The theory of scientists is built on simple reasoning. It is desirable to ask questions and seek answers for the same.

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

Explanation: "The only thing a scientist asks of an of one is to base ones characterizes a child ion whom society has not yet imposed its beliefs and prejudices,"

"It is a culture and a philosophy of life, a philosophy which allows us to purpose truth without any prejudgment."

So, science is a study of more than just physics, chemistry, biology, and mathematics. The preconceptions and knowledge of various disciplines of knowledge are not required in a scientific inquiry but only an open mind that can question and find an answer based on reasoning.

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

Explanation: The following lines from the passage,

"Science is nothing more than questions asked and questions answered." "a method that "works" and can be used to solve problems that one faces in everyday life"

Clearly states that science is, based on asking questions and answering them, and can be used effectively in solving the day-to-day problem of life as it is based on simple reasoning.

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

Explanation: With reference to the passage, the following lines,

"Science is indeed, far more than just Physics, chemistry, biology, astronomy and mathematics," Clearly states that science is more than mere disciplines of knowledge. It is a culture and philosophy of life and the question of ideas and a way of thinking without prejudgment.

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

Explanation: The following lines from the passage, "a value system which is rational and reasonable, which appeals to the common sense, which is commensurate with knowledge and, above all which all has a build-in corrective."

Clearly states that rationality is an important basis of the scientific method, and the attitude of mind that we can easily understand

by the methods of science, and understanding the philosophy of life is the essence of science.

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

Explanation: A pronoun is a word used in place of a noun. 'This' is a demonstrative pronoun. In the above sentence, 'this' specifies some attitude of mind, culture, and some philosophy of life.

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

Explanation: The synonym of the word 'untempered' is 'irrational.' Untempered means are unreasonable. 'Irrational' means without reason or logic. So, the word with the same meaning is 'irrational.'

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

Explanation: The word 'prejudiced' means a preconceived opinion that may not be logical.

The word 'indifferent' means unconcerned. So, the most proper antonym of the word 'prejudiced' is 'indifferent'.

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

Explanation: With reference to the line from paragraph: "In fact, science is nothing more than questions asked and questions answered, and the method of science, no more than a method of asking questions and answering them."

The word 'them' is missing, and thus the sentence is incomplete.

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

Explanation: These lines are taken from the poem 'The Last Ride Together' by Robert Browning.

"Those deep dark eyes where pride demurs

When pity would be softening though,

Fixed me a breathing while or twos
With life or death in the balance right!"

The above-mentioned lines show that the pride of the beloved stands in the way of his lover's success, and there is a conflict between pride and pity.

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

Explanation: The following line from the poem, 'The Last Ride Together' by Robert Browning,

"So, one day more am I deified, who knows next but the world may end to-night?"

This line shows the poet in a sombre mood when he is contemplating his future with his beloved, which hangs in vain and is a matter of life and death for him.

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

Explanation: What will happen to the lovers at the end of the ride?

The main idea of the poem 'The Last Ride Together' by Robert Browning, revolves around the "last ride." In this context, the poet weaves his thoughts. The poet desires to take a last ride with his beloved before breaking the relationship.

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

Explanation: 'Metaphor' is a figure of speech which makes the comparison between two distinct things denote a likeness between them. Here the poet is comparing himself to God. He feels like a deity when he rides and breathes with his beloved. So, the figure of speech is a 'metaphor'.

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

Explanation: Personification is a figure of speech used to attribute human characteristics to something not human. It can also be used to personify an abstract quality. In the sentence, 'with life and death in the balance,' life and death are being personified here to be in balance.

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

Explanation: "At the end the lover feels like he's in heaven" is correct as the poet feels like a deity by riding beside his beloved.

The line from the poem, "my last thought was at least not vain," shows at least his one request has been granted." So, it is true.

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

Explanation: Language is a symbolic rule-governed system. Phonological rules govern how sounds are combined to form words. Syntactic rules govern the way symbols can be arranged. Semantic rules help us understand the meaning of individual words. Pragmatic rules tell us what uses and interpretations of a message are appropriate in the given context. So, it is right to say that language is rule-governed.

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

Explanation: The total physical response is a language teaching method developed by James Asher, a professor emeritus of psychology at San Jose State University. It is based on the coordination of language and physical movement. The method is an example of the 'comprehension approach' to language teaching where instructors give commands to students in the target language with body movements, and students respond with whole-body actions.

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

Explanation: The following 22 languages are listed in the 8th schedule of the Indian constitution.

- | | |
|--------------|--------------|
| 1. Assamese | 2. Bengali |
| 3. Gujarati | 4. Hindi |
| 5. Kannada | 6. Konkani |
| 7. Malayalam | 8. Manipuri |
| 9. Marathi | 10. Odia |
| 11. Punjabi | 12. Sanskrit |
| 13. Sindhi | 14. Urdu |
| 15. Tamil | 16. Telugu |
| 17. Bodo | 18. Santhali |
| 19. Maithili | 20. Dogri. |

109. Option (3) is correct.

Explanation: Inputs include textbooks, learner-chosen texts, and class libraries. These inputs and the environment enriched with these types of resources can help with the disability interpret and comprehend a language and the ability to understand and use it. Practitioners seize every opportunity to use language, interact and encourage turn-taking.

110. Option (4) is correct.

Explanation: Skimming is a reading technique involving rapid eye movements and keywords to move quickly through text to get to the gist of the text. A skimmer ignores or skips unnecessary information to get to the main idea to get an overall understanding of the text. There are three types of skimming: preview, overview, and review. Reading long novels and non-fiction materials is the best example of skimming.

111. Option (2) is correct.

Explanation: Vocabulary, pronunciation, and grammar are form-oriented language inputs. They are helpful while learning the language. Form-oriented input focuses on ways of using language: linguistic competence; discourse competence; sociolinguistic competence; strategic competence. Language inputs come in the form of teacher talk and listening activities. Reading passages, and the language heard and read outside of class. They help learners with the material they need to begin producing language themselves.

112. Option (1) is correct.

Explanation: An individual's vocabulary is defined by the words they extensively use, as opposed to those they can understand when used by others. Also called active vocabulary; or working vocabulary.

113. Option (3) is correct.

Explanation: Procedural knowledge, also known as imperative knowledge, is the type of knowledge exercised in the performance of a task. It is basically "how" you know to do something. A classic example is riding a bicycle.

Procedural knowledge in language helps learners to learn grammar, and its structures and apply it while communicating. It is goal-oriented and mediates problem-solving behaviour.

114. Option (2) is correct.

Explanation: Process writing is an approach to teaching writing that allows the teacher and the students to go through the process of producing a text together.

A process approach to writing contrasts with a product approach, where the main idea is to reproduce a model text.

A typical process writing lesson usually includes the following phases;

- Pre-writing
- Writing
- Revising
- Editing

Process writing fosters creativity, and encourages collaborative work.

115. Option (1) is correct.

Explanation: An extrapolative writing task needs imagination and prediction before doing something. Here, the boy is writing a letter to his friend describing the experience, and thinking about various things while writing. This task enhances their writing as well as their thinking process.

116. Option (4) is correct.

Explanation: Embedded pedagogy is to teach with those methods that can help in learning while doing or using those materials that are realistic and knowledgeable. Every experience of life adds to the earlier knowledge and helps to create and develop innovative ideas.

117. Option (1) is correct.

Explanation: Basic interpersonal communication skills (BICS) are often referred to as "playground English", "survival English", or "social language". BICS is part of a theory of language proficiency developed by Jim Cummins.

It is context embedded, meaning the conversation is face-to-face and offers many cues to the listener such as facial expressions, gestures, and concrete reference objects.

It is a cognitively undemanding language which means that it is easy to understand, deals with everyday language and occurrences, and uses a simple language structure.

118. Option (2) is correct.

Explanation: Formative assessment, formative evaluation, formative feedback, or assessment for learning, including diagnostic testing, is a range

of formal and informal assessment procedures conducted by teachers during the learning process to modify teaching and learning activities to improve student attainment.

The goal is to increase students' motivation and learning which requires productive feedback that will pinpoint their strengths, and help them to develop their strengths even further.

Assessment of learning is summative in nature occurring at the end of a class, course, semester, or academic year.

Assessment as learning evaluates a child's own and his/her peer's work against well-defined criteria or learning goals.

119. Option (3) is correct.

Explanation: National Education Policy 2020 recommends the study of classical languages as an additional option.

In addition to Sanskrit, other classical languages, and literature of India, including Tamil, Telugu, Kannada, Malayalam, Odia, Pali, Persian, and Prakrit, will also be widely available in schools as options for students, to ensure that these languages and literature stay alive and vibrant.

A language becomes dead when it has no more native speakers. So, it is especially important to revive them by including them in the school curriculum as an optional subject.

120. Option (1) is correct.

Explanation: Mutual dictation is a group activity where the students are divided into pairs and are asked to dictate parts of the text to each other and then collectively combine the total text.

It helps to develop listening, reading, and writing skills interactively.

Language: Hindi

121. विकल्प (1) उचित है।

व्याख्या—नालन्दा विश्वविद्यालय में पुस्तकालय का निर्माण बालादित्य ने करवाया था। विशालता, नियमबद्धता और सुप्रबंध के विचार से नालन्दा का विश्वविद्यालय वर्तमान काशी की अपेक्षा ऑक्सफोर्ड से अधिक मिलता-जुलता था। इससे सम्बन्ध रखने वाला पुस्तकालय नौ-मंजिला था।

122. विकल्प (3) उचित है।

व्याख्या—नालन्दा विश्वविद्यालय में चौमंजिला इमारतें बौद्ध शिक्षकों और प्रचारकों के लिए बनी थीं। उनके सिवा ऊँची-ऊँची मीनारों और विशाल भवनों में नाना प्रकार के बहुमूल्य रत्न भी जड़े हुए थे।

123. विकल्प (2) उचित है।

व्याख्या—विशालता, नियमबद्धता और सुप्रबन्ध के विचार से नालंदा का विश्वविद्यालय वर्तमान काशी की अपेक्षा ऑक्सफोर्ड से अधिक मिलता-जुलता था। इसके विहारों में कई दस हजार भिक्षु विद्यार्थी और डेढ़ हजार अध्यापक रहते थे।

काशी विश्वविद्यालय से बनारस हिन्दू विश्वविद्यालय को काशी विश्वविद्यालय के नाम से जाना जाता है, इसकी स्थापना मदनमोहन मालवीय जी ने की थी। तक्षशिला विश्वविद्यालय से भारत का प्राचीन शिक्षा केंद्र, वर्तमान में पाकिस्तान में अवस्थित है, इसकी स्थापना भरत के पुत्र तक्ष ने की थी। कोटिल्य ने यही शिक्षा ग्रहण की थी।

विक्रमशिला विश्वविद्यालय से भारत का प्राचीन शिक्षा केंद्र, वर्तमान में बिहार के भागलपुर में अवस्थित है, इसकी स्थापना राजा धर्मपाल ने की थी।

124. विकल्प (4) उचित है।

व्याख्या—विद्यालोलुप चीनी सन्यासी नालंदा की भव्यता और पवित्रता को देखकर लट्टू हो गया। यहाँ ऊँचे-ऊँचे विहार और मठ चारों ओर खड़े थे। बीच-बीच में सभागृह और विद्यालय बने हुए थे। वे सब समाधियों, मन्दिरों और स्तूपों से घिरे हुए थे।

भव्य इमारत को सुंदर इमारत को देखने के बाद। समाधियों और मंदिरों को हिन्दुओं के पवित्र स्थल मंदिर को कहा जाता है, किसी मृत के शव दफनाने का स्थान समाधि कहलाता है। छतों और खम्भों को जिस पर छत टिकी है, उसे खम्भा कहा जाता है, और छत जिसकी वजह से व्यक्ति छाँव और धूप से बचता है।

125. विकल्प (2) उचित है।

व्याख्या—चौमंजिला में द्विगु समास होगा। चौमंजिला अर्थात् चार मंजिला का समाहार। यदि किसी सामासिक पद में प्रथम पद संख्यावाचक शब्द हो एवं द्वितीय पद संज्ञा शब्द हो तथा समस्त पद समूह का बोध करवाए तो उसे द्विगु समास कहते हैं। उदाहरण के लिए दोराहा = दो राहों का समाहार।

126. विकल्प (3) उचित है।

व्याख्या—‘लट्टू होना’ अर्थात् किसी भी व्यक्ति का कायल हो जाना होता है। ‘मुहावरा’ शब्द अरबी भाषा का है जिसका अर्थ ‘अभ्यास होना’ होता है। यह अपने सामान्य अर्थ को छोड़कर असामान्य अर्थ प्रकट करता है। भाषा की समृद्धि और उसकी अभिव्यक्ति क्षमता के विकास हेतु मुहावरों का प्रयोग उपयोगी होता है। जिस भाषा में इनका जितना अधिक प्रयोग होगा, उसकी अभिव्यक्ति क्षमता उतनी ही प्रभावपूर्ण व रोचक होगी।

127. विकल्प (4) उचित है।

व्याख्या—‘विद्यालोलुप’ का शाब्दिक अर्थ जिज्ञासु होगा क्योंकि चीनी सन्यासी विद्यालोलुप

व्यक्ति था जो नालंदा की भव्यता और पवित्रता देखकर लट्टू हो गया था।

128. विकल्प (2) उचित है।

व्याख्या—‘आकाश से बातें करने’ का अर्थ बहुत ऊँचा होना है।

129. विकल्प (4) उचित है।

व्याख्या—स्वावलम्बन के अनेक लाभ हैं। स्वावलम्बी मनुष्य में अनेक गुण स्वतः ही आ जाते हैं, जैसे—आत्मविश्वास, आत्मसम्मान, दृढ़ संकल्प, साहस, धैर्य इत्यादि। इसलिए इसमें संशय का कोई स्थान नहीं होता।

आत्मविश्वास अपनी शक्ति एवं योग्यता पर विश्वास

- जैसे—शैक्षिक सफलताओं ने उन्हें स्वस्थ आत्मविश्वास प्रदान किया
- दृढ़ संकल्प—ऐसी शक्ति जिसे दुनिया की कोई भी ताकत तोड़ न सके जो अपने लक्ष्य से कभी विमुख न हो।
- स्वामी विवेकानंद दृढ़ संकल्प से युक्त व्यक्ति थे।
- धैर्य का अर्थ—धीरता
- धैर्य कड़वाहट पूर्ण हो सकता है, लेकिन इसका फल मीठा होता है।

130. विकल्प (1) उचित है।

व्याख्या—आत्मनिर्भरता से कायरता, भय, संशय, आलस्य तथा चिन्ता दूर हो जाती है। इससे व्यक्ति अनेक कष्टों एवं बाधाओं को पद-दलित करता हुआ कंटकाकीर्ण मार्ग पर निर्भरतापूर्वक आगे बढ़ता जाता है।

- कायरता का अर्थ—डरपोकपन।
- उसके जीवन में कायरता जैसी कोई चीज नहीं है।
- संशय—संदेह। मुझे उसकी करतूत पर संशय हुआ।
- चिन्ता—उदासी। मुझे उसके चेहरे पर चिन्ता नजर आई।
- आलस्य सुस्ती और निकम्मापन
- उसका आलस्य उसकी जीवन शैली को प्रभावित करता है।

131. विकल्प (2) उचित है।

व्याख्या—स्वावलम्बी मनुष्य में अनेक गुणों की सृष्टि ईश्वर ने की है। वह भली-भाँति समझ लेता है कि वह मनुष्य है। आत्मनिर्भरता से व्यक्ति अनेक कष्टों एवं बाधाओं को पद दलित करता हुआ कंटकाकीर्ण मार्ग पर निर्भरतापूर्वक आगे बढ़ता है।

132. विकल्प (1) उचित है।

व्याख्या—पद-दलित में तत्पुरुष समास है। पद-दलित अर्थात् पद से दलित। समास का वह रूप जिसमें द्वितीय पद या उत्तर पद प्रधान हो उसे तत्पुरुष समास कहते हैं। तत्पुरुष समास में प्रथम पद संज्ञा या विशेषण होता है और लिंग-वचन का निर्धारण अन्तिम या द्वितीय पद के अनुसार होता है। उदाहरण के लिए गुणरहित—गुण से रहित।

133. विकल्प (1) उचित है।

व्याख्या—सदैव का संधि-विच्छेद सदा + एव होगा। जब दो वर्णों का मिलन अत्यन्त निकट कारण होता है तब उनमें कोई न कोई परिवर्तन होता है और वही परिवर्तन संधि के नाम से जाना जाता है। दो शब्दों के मेल से बने शब्द को पुनः अलग-अलग करना सन्धि विच्छेद कहलाता है। सदैव में वृद्धि सन्धि है।

134. विकल्प (2) उचित है।

व्याख्या—माता शब्द में ‘ता’ प्रत्यय का प्रयोग नहीं है। माता मूल शब्द है इसलिए इसमें कोई प्रत्यय नहीं है। जबकि दास + ता = दासता, निर्भर + ता = निर्भरता, पात्र + ता = पात्रता में ‘ता’ प्रत्यय है।

135. विकल्प (4) उचित है।

व्याख्या—स्वावलम्बी व्यक्ति से आत्मबल का त्याग अपेक्षित नहीं है। वह भली-भाँति समझ लेता है कि वह मनुष्य है तथा उसमें ईश्वर ने अनेक गुणों की सृष्टि की है। इसलिए निराश होना उसका धर्म नहीं है। निराश के क्षणों में भी उसे आत्मविश्वास एवं आत्मबल का त्याग नहीं करना चाहिए।

- स्वयं में विश्वास आत्मविश्वास
- निर्भीक होना साहस
- आत्मनिर्भरता आत्मबल।

136. विकल्प (4) उचित है।

व्याख्या—राष्ट्रीय शिक्षा नीति मातृभाषा/घर की भाषा, शास्त्रीय भाषाएँ, आधुनिक भारतीय भाषाएँ तथा विदेशी भाषाएँ इत्यादि के अध्ययन की वकालत करती हैं। नई शिक्षा नीति 2020 भारत की शिक्षा नीति है जिसे भारत सरकार द्वारा 29 जुलाई 2020 को घोषित किया गया। यह नीति अन्तरिक्ष वैज्ञानिक के.कस्तुरीरंगन की अध्यक्षता वाली समीति की रिपोर्ट पर आधारित है।

भाषायी विविधता का संरक्षण

इस शिक्षा नीति में पाँचवीं कक्षा की शिक्षा में मातृभाषा/स्थानीय या क्षेत्रीय भाषा को अध्यापन के माध्यम के रूप में अपनाने पर बल दिया गया है।

राष्ट्रीय की आवश्यकताओं तथा संविधान के आवश्यकताओं के अनुरूप शिक्षा के विभिन्न स्तरों पर पैदाई जाने वाली समस्याओं पर केंद्रीय शिक्षा सलाहकार परिषद (CABE) ने सन् 1956 में विचार-विमर्श करके त्रिभाषा सूत्र प्रस्तुत किया।

- त्रिभाषा सूत्र का शब्दार्थ है तीन भाषाओं वाला सूत्र
- केंद्रीय शिक्षा परामर्श बोर्ड ने सेकेंडरी आयोग के सुझाव का समर्थन नहीं किया और सन् 1956 में त्रिभाषा सूत्र का निर्माण किया।
- इसके अनुसार माध्यमिक स्कूल के प्रत्येक विद्यार्थी को पाठ्यक्रम के जरिए 3 भाषाएँ पढ़ानी होगी।

137. विकल्प (1) उचित है।

व्याख्या—एक बच्ची अपने माता-पिता के साथ बिहार से मुम्बई आती है तथा वह विद्यालय में हिन्दी, संस्कृत तथा अंग्रेजी सीखती है तथा वह विद्यालय में हिन्दी, संस्कृत तथा अंग्रेजी सीखती है तथा अपने पड़ोस एवं विद्यालय में अपने मित्रों से मराठी भाषा बहुत अच्छे से सीखती है। मराठी सीखना भाषा अर्जन की प्रक्रिया में शामिल होता है।

भाषा अर्जन का सिद्धान्त मुख्यतः चॉम्सकी का दिया हुआ है। उनके अनुसार बच्चों में भाषा सीखने की जन्मजात क्षमता होती है।

- सार्वभौमिक व्याकरण का नियम बताया।
- नए शब्द सीखना।
- निश्चित समय में अनुकर द्वारा भाषा नियम जानना।

138. विकल्प (3) उचित है।

व्याख्या—किसी शिक्षार्थी को एक पाठ्य सामग्री पढ़ते समय कुछ संकेत मिलते हैं जो उसे अर्थ ग्रहण की प्रक्रिया में मदद करते हैं। यह अर्थगत संकेत रूप में जाना जाता है। संकेत भाषा एक ऐसी भाषा है, जो अर्थ सूचित करने के लिए श्रवणीय ध्वनि पैटर्न में सम्प्रेषित करने के बजाय दृश्य रूप में हस्तचालित सम्प्रेषण, अंग-संकेत इत्यादि रूप में संचारित करती है। जहाँ भी बधिर लोगों का समुदाय मौजूद हो, वहाँ संकेत भाषा का विकास होता है।

सरसरी दृष्टि से पढ़ना व्यापक या द्रुत पठन या सरसरी दृष्टि से पढ़ने में पाठक अपनी रुचि के विषय की सामान्य समझ प्राप्त करने के लिए केवल सरसरी दृष्टि से कई प्रकार की पुस्तकों, समाचार पत्रों, पत्रिकाओं आदि को पढ़ता है। बारीकी से पढ़ना—गहन पढ़ने या बारीकी से पढ़ने का संबंध कक्षा में सीखने से है, जिसमें छात्र को विषय को गहराई से समझने के लिए कई बार कुछ पाठ बारीकी से पढ़ने के लिए बताया जाता है।

139. विकल्प (3) उचित है।

व्याख्या—श्रवण की अधोमुखी प्रक्रिया में मुख्य विचार समझना, अनुमान लगाना निष्कर्ष आरेखित करना तथा सारांश लिखना सम्मिलित है। श्रवण एक प्रक्रिया है जिसके द्वारा वक्ता को स्वीकार किया जाता है तथा उसके सन्देश का अर्थ समझकर उसके प्रति अपनी अनुक्रिया देना भी होता है। एक्स्ट्रापोलेटिव प्रश्न तथा सारांश लेखन गतिविधि अधोमुखी श्रवण प्रक्रिया को प्रोत्साहन देती है।

एक्स्ट्रापोलेटिव प्रश्न—ऐसे प्रश्न जो ज्ञात जानकारी का विस्तार कर निष्कर्ष निकाल सके।

सारांश लेखन—मूल अवतरण के भावों, अवस्था, विचारों को संक्षेप में लिखने की क्रिया को सारांश लेखन कहते हैं।

जबकि ऊर्ध्वमुखी प्रक्रिया में एक श्रोता सुनते समय विशिष्ट तथ्य सुनता है, शब्दों के समूह

को पहचानता है और शब्द क्रमों के नमूने पहचानता है।

140. विकल्प (1) उचित है।

व्याख्या—संज्ञाएँ, क्रियाएँ, विशेषण, क्रिया-विशेषण सभी विषयवस्तु के शब्द के रूप में वर्गीकृत किए गए हैं। कल्पना, विचार आदि के रूप में रहनेवाला वह मूल तत्त्व जिसे आधार मानकर कलात्मक रचना का सृजन किया गया हो। किसी भी कृति का मूल विचार ही उसकी विषयवस्तु होती है।

संज्ञा—किसी व्यक्ति, वस्तु, स्थान इत्यादि।

क्रिया—गतिविधि

विशेषण—किसी वस्तु, व्यक्ति स्थान की विशेषता का वर्णन।

क्रिया विशेषण—क्रिया की विशेषता बताने वाला।

141. विकल्प (2) उचित है।

व्याख्या—संरचनाओं के बारे में ज्ञान तथा इसे सीमित अभ्यास द्वारा वर्णित करना या क्रियान्वित करना ही घोषणात्मक ज्ञान कहलाता है।

- जानकारी वैचारिक, प्रस्तावात्मक या वर्णनात्मक ज्ञान के रूप में।
- विषयों, चीजों, घटनाओं, परिणामों इत्यादि की विशेषताओं का वर्णन।

दूसरे शब्दों में, यहाँ विद्यार्थी रूप या पैटर्न सीखते हैं और शिक्षक को यह सुनिश्चित करना चाहिए कि विद्यार्थियों के मन में प्रपत्र वहीं स्थापित हो।

- यह शिक्षक की वरीयता के आधार पर किसी भी दृष्टिकोण के माध्यम से किया जा सकता है।

अतः निष्कर्ष निकलता है कि संरचनाओं के बारे में ज्ञान तथा इसे सीमित अभ्यास द्वारा वर्णित करना व क्रियान्वित करना घोषणात्मक ज्ञान है।

142. विकल्प (4) उचित है।

व्याख्या—प्राकृतिक भाषा में सन्दर्भ से पठन सामग्री का स्रोत प्रामाणिक पठन सामग्री है। प्रामाणिक सामग्री प्राकृतिक भाषा और प्रामाणिक संस्कृति से सम्बन्धित होती है।

प्रामाणिक सामग्री वे पठन ग्रंथ हैं जो देशी वक्ताओं द्वारा लिखे गए थे और समाचार पत्रों या पत्रिकाओं के संदर्भों में विशेष रूप से देशी-वक्ताओं के लिए डिजाइन किए गए थे, जिसमें गैर-देशी पहुंच के लिए कोई विचार नहीं दिया गया था। प्रामाणिक सामग्री का उपयोग करने के लाभ—

- प्रामाणिक सामग्री शिक्षण के लिए अधिक रचनात्मक दृष्टिकोण प्रदान करती है।
- प्रामाणिक सामग्री का शिक्षार्थी की प्रेरणा पर सकारात्मक प्रभाव पड़ता है। प्रामाणिक सामग्री प्राकृतिक भाषा और प्रामाणिक सांस्कृतिक जानकारी के संपर्क में आती है। पत्रिकाओं से तैयार की गई प्रामाणिक सामग्री हमेशा अप-टू-डेट होती है और लगातार अपडेट की जाती है।

- प्रामाणिक सामग्री शिक्षार्थियों की आवश्यकताओं से अधिक निकटता से संबंधित होती है और उन्हें सीखने के लिए प्रासंगिक सामग्री का स्रोत प्रदान करती है। इसलिए यह निष्कर्ष निकाला जा सकता है कि प्राकृतिक भाषा में संदर्भ से पठन सामग्री का स्रोत प्रामाणिक पठन सामग्री है।

143. विकल्प (3) उचित है।

व्याख्या—इसमें से भाषा आकलन के बारे में शिक्षार्थियों की भाषायी निपुणता का आकलन करना सही है। आकलन का अर्थ पास बैठना एवं अवलोकन करना होता है। आकलन छात्रों के व्यवस्थित विकास के आधार का एक साधारण-सा अनुमान है जिसमें रचना, चयन, विश्लेषण इत्यादि का प्रयोग करके अधिगम प्रक्रिया को बढ़ावा दिया जाता है।

भाषा आकलन का उद्देश्य

- त्रुटियों का निवारण करना।
- भाषा सीखने की प्रक्रिया को उत्तम बनाना।

144. विकल्प (1) उचित है।

व्याख्या—भाषा की कक्षा में त्रुटियों के विषय में त्रुटियाँ शिक्षार्थियों तथा शिक्षक दोनों के लिए सीखने के क्षेत्र और प्रतिपुष्टि के लिए सही है। सीखने की प्रक्रिया में गलतियाँ करना सीखने हेतु एक महत्वपूर्ण गतिविधि है। विद्यार्थियों के पास प्रतिदिन की जाने वाली गलतियों या त्रुटियों की एक लम्बी सूची होती है। सीखने की प्रक्रिया एवं सीखने की विषयवस्तु दोनों ही सम्बद्ध त्रुटियाँ होती हैं।

145. विकल्प (3) उचित है।

व्याख्या—एक भाषा शिक्षक सामाजिक विज्ञान के साधनों के साथ मिलकर 'भारत की सांस्कृतिक विविधता' पर प्रदत्त कार्य देता है/देती है। शिक्षार्थियों को इस विषय पर रिपोर्ट लिखने तथा पोस्टर तैयार करने के लिए सामाजिक विज्ञान की पुस्तक तथा इतिहास, भूगोल, संस्कृति तथा राजनीति से सम्बन्धित अन्य पुस्तकें तथा दस्तावेजों को पढ़ना है। भाषा-अधिगम की यह प्रक्रिया समूची पाठ्यचर्या में भाषा कहलाती है। भाषा को सीखना ही भाषा अधिगम है। मनुष्य अपने विचारों को अभिव्यक्त करने एवं समाज और परिवेश के साथ सामंजस्य स्थापित करने के लिए भाषा क्षमता का विकास करता है।

भाषा-अधिगम को प्रभावित करने वाले कारक

- सामाजिक परिवेश
- भाषा अर्जन की इच्छा

146. विकल्प (1) उचित है।

व्याख्या—एक शिक्षार्थी नए व्याकरणिक रूपों को सीखते समय पहले से सीखे हुए व्याकरणिक नियमों को आधार बनाता/बनाती है। इस अधिगम का तकनीक को संज्ञानात्मक युक्ति कहा जाता है।

संज्ञानात्मक

- कौशल की प्रारम्भिक अभिज्ञान एवं अवबोध।
- विद्यार्थी केन्द्रित बिन्दु।
- विद्यार्थी को अधिक कार्य निष्पादन या अभ्यास की अपेक्षा देखने, विचार करने, तर्क करने पर बल।

निम्न बिन्दु पर ध्यान देना आवश्यक है जो इस प्रकार है—

- विद्यार्थी को कौशल से सम्बन्धित आवश्यक जानकारी या अनुदेश देना।
- इस अवस्था में पर्याप्त प्रदर्श आवश्यक है।

147. विकल्प (3) उचित है।

व्याख्या—एक शिक्षार्थी सीमित समझ के साथ एक पठन सामग्री को पढ़ पाती है। वह पठन सामग्री को बहुत अच्छी तरह पढ़ पाती है तथा अवबोधन कार्य को अपने बड़े भाई की सहायता से करती है। शिक्षण-अधिगम का यह अभ्यास सहारा मिलना है।

रूसी मनोवैज्ञानिक लेव सिमनोविच वाइगोत्सकी ने संज्ञानात्मक विकास में सामाजिक अन्तःक्रिया पर अधिक बल दिया है। व्यक्ति की उच्च मानसिक प्रक्रिया की उत्पत्ति भी सामाजिक प्रक्रिया से होती है।

सामाजिक विकास सिद्धान्त की विशेषताएँ:

- संस्कृति संज्ञानात्मक विकास को दिशा देती है।
- सीखना विकास की ओर निर्देशित कर सकता है।
- बच्चे ज्ञान का सृजन करते हैं।

- बच्चे की भाषा, दक्षताएँ व अनुभव आदि व्यक्ति की सांस्कृतिक पृष्ठभूमि से प्रभावित होते हैं।

148. विकल्प (1) उचित है।

व्याख्या—वह कार्य जो शिक्षार्थियों को शब्दों की आकृतियों से जुड़ने, अर्थ निकालने तथा प्रयोग करने में सहायता करता है वह व्याकरण सीखने में सम्प्रेषणात्मक कार्य है।

- शिक्षक द्वारा भिन्न तरीकों का इस्तेमाल।
- भाषा पढ़ाने के अनेक दृष्टिकोण।
- भाषा में कुशल बनाना।

149. विकल्प (2) उचित है।

व्याख्या—व्याकरण सीखने में सचेतनता में वृद्धि करने वाली रणनीति व्याकरण/भाषा को सन्दर्भ में प्रस्तुत करना शिक्षार्थियों के संज्ञान में लाना व प्रयोग करने के योग्य बनाना तथा बाद में उनका ध्यान इसके नियमों की ओर दिलाना है। व्याकरण शिक्षण ही उचित विधि है। भाषा तब सीखी जाती है, जब वह भाषा के रूप में नहीं पढ़ाई जाती, बल्कि सार्थक संदर्भों से जोड़कर उसे पढ़ाया जाता है।

- राष्ट्रीय पाठ्यचर्या की रूपरेखा 2005 ने संदर्भ में व्याकरण पर विशेष बल दिया है।
- संदर्भ के यहाँ दो अर्थ हैं—
 - भाषा प्रयोग (वाक्य प्रयोग) का संदर्भ
 - सामाजिक संदर्भ (जिसमें भाषा प्रयोग होता है)।
- भाषा में निहित नियमबद्धता के प्रति सचेत व संवेदित करना संदर्भ में व्याकरण-शिक्षण का असली प्रयोजन है।

- इसके माध्यम से व्याकरण सूचना की वस्तु नहीं रह जाता, बल्कि अनुभूति का विषय हो जाता है। इसका बड़ा उद्देश्य है—भाषायी बारीकियों के प्रति जागरूक व संवेदित करना, ताकि समाज की अर्थवैज्ञानिक बारीकियों को समझ सकें और तदनुसार प्रयोग कर सकें।

अतः हम कह सकते हैं कि व्याकरण/भाषा को संदर्भ में प्रस्तुत करना शिक्षार्थियों के संज्ञान में लाना व प्रयोग करने के योग्य बनाना तथा बाद में उनका ध्यान इसके नियमों की ओर दिलाना व्याकरण सीखने में सचेतनता में वृद्धि करने वाली रणनीति है।

150. विकल्प (4) उचित है।

व्याख्या—अधिगम के सिद्धान्त के रूप में रचनावाद का विश्वास है कि बच्चे अपने पूर्व ज्ञान से जोड़कर सीखते हैं।

रचनावाद मूलतः एक सिद्धान्त है जो निरीक्षण एवं वैज्ञानिक अध्ययन पर आधारित होता है। यह हमें बताता है कि व्यक्ति सीखता कैसे है? टोमी फुसनोट ने रचनावाद के सम्बन्ध में चार सिद्धान्त बताये हैं—

- जो हम पहले से जानते हैं अधिगम उस पर निर्भर करता है।
- नये विचारों का उदय अपने पुराने विचारों में बदलाव एवं समाहित करने पर होता है।
- अधिगम विचारों की खोज है न कि मात्र यान्त्रिक तरीके से विचारों का संग्रह।
- सार्थक अधिगम पुराने विचारों पर पुनः सोचने तथा विचारों के बारे में नवीन निष्कर्ष निकालने से होता है।