

Time: 2 hours 30 mins.

Total Marks: 150

Child Development and Pedagogy

- Assertion (A):** Humans are able to learn and remember new things in motor and cognitive domains throughout their life span.
Reason (R): Outcome of a severely deprived childhood can be easily changed in later years.
Choose the correct option.
(1) Both (A) and (R) are true and (R) is the correct explanation of (A).
(2) Both (A) and (R) are true but (R) is not the correct explanation of (A).
(3) (A) is true but (R) is false.
(4) Both (A) and (R) are false.
- Which principle of development does the following example illustrate.
The development of a child does not take a straight path, it turns back and then moves forward again.
(1) Principle of uniformity
(2) Principle of spiral advancement
(3) Development is uni-directional
(4) Development is discontinuous.
- Many parents demanded a ban on the popular cartoon show Shinchan as their children were imitating the central character's 'unruly' behaviour. This illustrates is/are an important agency of socialization.
(1) Media (2) Peers
(3) Neighbourhood (4) Religion
- Which of the following statement about progressive education is correct?
(1) It involves lecture method and grouping according to the ability/marks of the students.
(2) It involves individualized learning, tests at the end of the year and ranking of students based on marks.
(3) It involves experimental learning and assessment through a variety of methods.
(4) It involves programmed instruction and use of rewards to encourage learning.
- Jean Piaget proposed the following sequence of developmental stages:
(1) Pre-operational, sensory-motor, concrete operational, formal operational.
(2) Sensory-motor, Pre-operational, concrete operational, formal-operational.
(3) Sensory-motor, Pre-operational, formal-operational, concrete operational.
(4) Concrete operational, Formal operational, sensory-motor, pre-operational.
- According to Jean Piaget, which of the following questions will be answered only by the children in formal operational stage?
(1) Ronak ate 11 chocolates. His sister ate twice as many. How many chocolates they both ate in total?
(2) If A is greater than B and B is greater than C. What is the relation between A and C?
(3) How many whole numbers are there between 67 and 81?
(4) $7+9=?$
- According to Lev Vygotsky, which of the following factors influence learning?
(i) social interaction
(ii) cultural tools
(iii) language
(iv) negative reinforcement
(1) (iv) (2) (i)
(3) (i) (ii) (iii) (4) (i) (iii) (iv)
- According to Lev Vygotsky, when teachers make adjustment in the support extended to the child according to the child's current level of performance, it is referred to as:
(1) reinforcement (2) conditioning
(3) modelling (4) scaffolding
- According to Lawrence Kohlberg the child's moral development in stage 3-maintaining mutual relation, the 'Golden Rule' refers to the stage where:
(1) the child wants to please and help others.
(2) the child understands the social system is dependent on the performance of one's duties to maintain social order.
(3) right actions are defined according to the norms, needs and rights which are unanimously accepted by society.
(4) the child not only keep in mind the norms of the society but also the limits to which the universal principles are applicable.
- Howard Gardner proposed that:
(1) intelligence is a practical goal oriented activity
(2) intelligence comprises of seven intelligences in a hierarchical order
(3) intelligence is a generic ability that he labelled as 'g'.
(4) intelligence comprises of several kinds of human abilities.
- Several television commercials depict men and women in stereotypical roles. How should a teacher discuss this issue in her classroom?
(1) She should encourage students to accept statements made in television commercials at face value.
(2) She should encourage students to analyze it critically and arrive at a reasoned decision.
(3) She should encourage students to reach conclusion on the basis of given facts in the commercial.
(4) She should encourage students to imitate the behaviour of men and women shown in the commercials.

12. In the context of cognitive and language development, who said "Thought comes first than language"?
- (1) Jean Piaget (2) Lev Vygostky
(3) B.F Skinner (4) Jerome Bruner
13. Which of the following statement regarding proposals made by National Education Policy 2020 (NEP) is not correct?
- (1) NEP 2020 proposes that a variety of methods and strategies such as group work and role plays be used for assessment.
(2) NEP 2020 proposes shift from formative to summative assessment.
(3) NEP 2020 proposes that apart from assessment by the teacher other ways such as self - assesment and peer assessment should be encouraged.
(4) NEP 2020 proposes that report card of the student should include progress in the cognitive, affective and psychomotor domains.
14. Should terms take 'slow learner' 'brilliant' and 'average' be used to describe students in a classroom?
- (1) Yes, it helps students understand the level of their performance.
(2) No, these terms label children based on ability and are non-inclusive.
(3) Yes, it can help a teacher categorize children in his classroom.
(4) No, these categories are not sufficient, we need to add many more to understand student profiles.
15. Which kind of diversities should a teacher respect and include in her classroom?
- (1) Regional (2) Socio-cultural
(3) Economic (4) Linguistic
16. Murti, a grade 4 student, is able to read only at the level of a grade 1 student. He also has difficulty matching sounds, spelling words and reading letters. Murti shows characteristics of:
- (1) Dyspraxia (2) Dyscalculia
(3) Dyslexia (4) Dysgraphia
17. A teacher can identify creative children in her class by:
- (1) their ability to think convergently
(2) their popularity among peers
(3) their innovative style of thinking
(4) their selection of simple and recall based tasks.
18. What are the following behaviours primary characteristics of:
Impulsivity, low attention span, fidgeting, inability to sit for long?
- (1) Autism
(2) Giftedness
(3) Attention Deficit Hyperactivity Disorder
(4) Creativity
19. Which of the following strategies does not promote inclusion?
- (1) Flexible grouping
(2) Differentiated Instruction
(3) Ability grouping
(4) Reasonable curricular accomodation
20. Which of the following is not a characteristic of child with giftedness?
- (1) High level of commitment
(2) Prefers working independently on tasks
(3) Ability to recognize multiple options while working on problems.
(4) Eagerness to repeat the same task multiple times.
21. A teacher should employ classroom management strategies which focus on:
- (1) controlling the class through rigid rules
(2) expecting same behaviour from all children
(3) making students abide to all rules without questioning
(4) giving ample oppurtunities for self reflection
22. Which is the most effective strategy to encourage conceptual development in children?
- (1) Keep punishing students till they make the required changes.
(2) Getting children to forget old concepts and learn new ones by rote memorization.
(3) Give a variety of examples and non-examples and encourage students to use reasoning.
(4) Rewarding students each time they make a conceptual change in their schema.
23. Effective teaching includes:
- (i) Taking care of emotional needs of students.
(ii) Adapting curriculum and assessments to the student's needs.
(iii) Flexible grouping for peer interaction.
(iv) Employing rigid classroom management strategies.
- (1) (i) (ii) (iii) (iv) (2) (i) (ii) (iii)
(3) (ii) (iii) (iv) (4) (i) (iii) (iv)
24. Rekha provided a map of India with landforms and rivers to her students and encouraged them to make initiative guesses about the location of major cities in it. Her approach to teaching-learning is:
- (1) Rote memorisation (2) Discovery learning
(3) Direct instruction (4) Expository teaching
25. Presentation of a concept and its sub concepts in a heirarchical and interconnected manner is called:
- (1) Mnemonic (2) Heuristics
(3) Graphic organizer (4) Algorithms
26. Several educational reports are revealing that students are underperforming than the expected learning levels. The first unit of analysis to understand this gap should be:
- (1) System (2) Child
(3) Community (4) Parent
27. Children's intrinsic motivation to learn is increased when:
- (1) learning is centred around rewards and punishment.
(2) learning strategies focus on mere memorization and recall
(3) their learning enviroment fosters their sense of belonging and agency.
(4) the teachers encourage obedience and adopt standardized methods of assessment.
28. Which emotion would facilitate the process of meaningful learning?
- (1) Shame (2) Fear
(3) Hopelessness (4) Curiosity
29. **Assertion:** Teachers must encourage children to share the 'naive' or intuitive theories that they construct.
Reason: All children start off with pre-conceptions of reality and these conceptions influence their understanding in schools.

Choose the correct option.

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
 (2) Both (A) and (R) are true but (R) is not the correct explanation of (A).
 (3) (A) is true but (R) is false.
 (4) Both (A) and (R) are false.
30. What tasks should be focussed upon in a socio-constructivist classroom?
 (1) Task that are challenging and allow critical thinking.
 (2) tasks that are repetitive and mechanical
 (3) tasks based on recalling the text
 (4) tasks that do not permit questioning by the child.

Mathematics and Science

31. Which of the following fractions(s) can be written as a terminating decimal?
 (i) $\frac{7}{18}$ (ii) $\frac{11}{250}$
 (iii) $\frac{21}{28}$
 (1) (i) only (2) (ii) only
 (3) (ii) and (iii) only (4) (i) and (ii) only
32. If $\frac{547.527}{0.0082} = x$, then the value of $\frac{547527}{82}$ is
 (1) $10x$ (2) $100x$
 (3) $\frac{x}{100}$ (4) $\frac{x}{10}$
33. The distance of the Earth and Moon is 384,000,000 m. If it is expressed in standard form i.e. $p \times 10^n$, then the value of p and n are respectively
 (1) 3.84 and 8 (2) 0.384 and 9
 (3) 38.4 and 7 (4) 384 and 6
34. Arrange the following numbers in ascending order:
 $-1\frac{3}{5}, -2\frac{1}{3}, \frac{1}{2}, \frac{2}{5}, \left(\frac{2}{5}\right)^{100}$
 (1) $-2\frac{1}{3}, -1\frac{3}{5}, \frac{2}{5}, \frac{1}{2}, \left(\frac{2}{5}\right)^{100}$
 (2) $-1\frac{3}{5}, -2\frac{1}{3}, \frac{2}{5}, \left(\frac{2}{5}\right)^{100}, \frac{1}{2}$
 (3) $-2\frac{1}{3}, -1\frac{3}{5}, \left(\frac{2}{5}\right)^{100}, \frac{2}{5}, \frac{1}{2}$
 (4) $-2\frac{1}{3}, -1\frac{3}{5}, \frac{2}{5}, \left(\frac{2}{5}\right)^{100}, \frac{1}{2}$
35. If $78x3945$ is divisible by 11, where x is a digit; then x is equal to
 (1) 0 (2) 1
 (3) 3 (4) 5
36. One of the factors of $(x-3)^2 + 5(x-3) + 4$ is:
 (1) $x-1$ (2) $x-2$
 (3) $x+2$ (4) $x-3$

37. If $\frac{x^{a^2}}{x^{b^2}} = x^{12}$, $x > 1$ and $a - b = 3$, then value of $(a + b)$ is:
 (1) 1 (2) 2
 (3) 3 (4) 4
38. If $a - b = 7$ and $a^2 + b^2 = 29$, then what is the value of $\frac{1}{a} - \frac{1}{b}$
 (1) $\frac{3}{5}$ (2) $-\frac{3}{5}$
 (3) $\frac{7}{10}$ (4) $-\frac{7}{10}$
39. Let $p = 2x^4 - x^3y^3 + 7y^4$,
 $q = x^4 + 3x^3y^3 - 5y^4$
 and $r = 3x^4 - 4x^3y^3 + 2y^4$
 Then, $p + q - r$ is equal to:
 (1) $7x^4 - 2x^3y^3 + 4y^4$ (2) $x^4 + x^3y^3 + y^4$
 (3) $4x^3y^3$ (4) $6x^3y^3$
40. If $\frac{7-x}{5x+1} = 3$, then what is the value of $\frac{x+1}{x-1}$?
 (1) $-\frac{5}{3}$ (2) $-\frac{7}{4}$
 (3) $\frac{5}{4}$ (4) $\frac{7}{3}$
41. If the mean of five observations $x, x + 3, x + 6, x + 9$ and $x + 12$ is 15, then the mean of first three observations is:
 (1) 11 (2) 12
 (3) 15.5 (4) 11.2
42. A card is selected at random from a standard deck of 52 playing cards. What is the probability of selected being not a king?
 (1) $\frac{12}{13}$ (2) $\frac{1}{52}$
 (3) $\frac{4}{13}$ (4) $\frac{1}{13}$
43. How many times a wheel of diameter 105 cm will rotate to cover a distance of 330 m? (Take $\pi = \frac{22}{7}$)
 (1) 100 (2) 110
 (3) 90 (4) 105
44. The radius and height of the cylinder are 7 cm and 12 cm, respectively. Another cylinder is formed by interchanging its radius and height. The ratio of the volumes of the two cylinders is:
 (1) 7:12 (2) 12:7
 (3) 1:2 (4) 1:1
45. If the area of a square A is equal to the area of a circle B, then the ratio of perimeters of A and B is:
 (1) $2 : \sqrt{\pi}$ (2) $1 : \sqrt{\pi}$
 (3) $\sqrt{\pi} : 2$ (4) $\sqrt{\pi} : 1$
46. To prove, $\triangle ABC \cong \triangle PRQ$, by SAS congruency rule, besides $AB = PR$ and $BC = QR$, we have to show
 (1) $\angle A = \angle P$ (2) $\angle C = \angle Q$
 (3) $\angle B = \angle R$ (4) $\angle A = \angle R$

47. Consider the following statements:
S1: A triangle is completely determined by its three sides
S2: A unique quadrilateral cannot be constructed if measure of its four sides are given
 Which of the following is correct?
 (1) Only S1 is true
 (2) Only S2 is true
 (3) Both S1 and S2 are true
 (4) Both S1 and S2 are false
48. **Assertion (A):** A rectangle has 2 lines of symmetry.
Reason (R): Since every rectangle is also a parallelogram, therefore the number of lines of symmetry of a parallelogram is also 2.
 Which of the following is correct?
 (1) (A) is true, but (R) is false
 (2) (A) is false, but (R) is true
 (3) Both (A) and (R) are true
 (4) Both (A) and (R) are false
49. If $n = F + V$, where F and V represents respectively the number of faces and vertices of a polyhedron having 30 edges, then value of $(2n + 1)$ is:
 (1) 5 (2) 32
 (3) 64 (4) 65
50. Consider the following two statements for the congruency of two polygons having same number of sides:
S1: Their corresponding sides are equal
S2: Their corresponding angles are equal
 Which of the following is correct?
 (1) Only S1 is true
 (2) Only S2 is true
 (3) Both S1 and S2 are true
 (4) Both S1 and S2 are false
51. Middle grade children sometimes do not regard rectangles and squares as parallelograms. As a teacher, to help such students, you should:
 (1) Tell children that rectangles and squares have different mathematical properties than those of parallelogram.
 (2) Not initiate such discussions as middle school students cannot do generalizations.
 (3) Give a variety of manipulatives to children that have same mathematical properties but different physical characteristics.
 (4) Ask the teacher teaching at the primary grades to help such students as these concepts are dealt at primary grades.
52. 'Mathematics Laboratories' are an important part of the process of mathematics teaching and learning because:
 (1) They provide opportunities to learners for experimentation and exploration in mathematics.
 (2) They help to improve score of schools during annual inspection.
 (3) They help schools to attract more students for admission.
 (4) They help teachers by providing free time to complete administrative work.
53. The levels of Van Hiele's geometric reasoning are given below. They are arranged in random order.
 (i) Relationships among figures
 (ii) Recognition of figures
 (iii) Axiomatic Reasoning
 (iv) Deductive Reasoning & formal proofs
 (v) Analysis of components of figures
 Choose the correct sequence.
 (1) (ii), (i), (v), (iv), (iii) (2) (i), (ii), (v), (iv), (iii)
 (3) (ii), (v), (i), (iv), (iii) (4) (iv), (iii), (ii), (v), (i)
54. Ravi solved an algebraic equation by adopting following steps:

$$2x + 14 = 26$$

$$\Rightarrow 2x = 26 - 14$$

$$\Rightarrow 2x = 12$$

$$\Rightarrow \frac{2x}{2} = \frac{12}{2}$$

$$\Rightarrow x = 6,$$
 Which method did he adopt?
 (1) Visualisation (2) Transposition
 (3) Estimation (4) Trial-Error
55. In data handling, the common misconception the students have about "mean-as a measure of central tendency" is:
 (1) Mean is computed by added all the numbers in the set and dividing the sum thus obtained by the number of items
 (2) Mean is used everywhere as a measure of central tendency regardless of the context of the data
 (3) Mean is affected by extremely large and extremely small values in the data
 (4) The order of data is irrelevant to the calculation of mean
56. Which among the following is most appropriate regarding the use of questioning as a pedagogical tool in the mathematics classroom:
 (1) Questioning needs to be minimised as it will create fear of mathematics among the students
 (2) Use it whenever required since it will help children to express their views and thoughts and will help to improve critical thinking
 (3) Use it as an assessment strategy to assess gifted students
 (4) Minimise it since it will create discipline related issues in the classroom
57. If $\frac{a}{b}$ and $\frac{c}{d}$ are two fractions, where $\frac{a}{b} \neq 0$, then $\frac{b}{a}$ is called the
 (1) Multiplicative inverse
 (2) Commutative property of fractions
 (3) Multiplicative identity of fractions
 (4) Closure property of fractions
58. A teacher gives 1-cm grid papers to the students in her class. The task is to decide:
 (a) how many rectangles can be made having an area of 48 cm^2
 (b) how many rectangles can be made having a perimeter of 24 cm

Which of the following statement is most desirable for the given activity from a reflective teacher's perspective:

- (1) To develop a deeper understanding of the relationship between perimeter and area
 - (2) The activity is based on inductive method of teaching
 - (3) It is a good activity to compare rectangle and circles
 - (4) The activity would be better if the teacher had posed the open ended question to be solved using the formula rather than using a paper
59. 'It is more useful to know how to Mathematise than to know a lot of Mathematics'. This statement is given by:
- (1) David Wheeler
 - (2) George Polya
 - (3) Henri Poincare
 - (4) Srinivasa Ramanujan
60. Which of the following statement/statements envision the growth of a mathematics teacher at middle school level?
- (a) Knowledge of mathematics and content specific pedagogy
 - (b) Ability to recall any given formula
 - (c) Reflecting on the teaching-learning process and student learning
 - (d) Successfully preparing students for Math Olympiads
- Choose the correct option:
- (1) (c) and (d)
 - (2) (b) and (d)
 - (3) (a) and (c)
 - (4) only (b)
61. Read the following table depicted properties of material and uses of materials.

Property of Material	Use
A. Malleable	(i) Electrodes in cell
B. High melting point	(ii) Construct bridges
C. Good conductor of heat and light	(iii) Wrapping food items
D. Strong	(iv) Making Thermometers
E. High coefficient of thermal expansion	(v) Heating elements of an appliance

Which of these make the correct matching set?

- (1) A-(iv), B-(v), C-(i), D-(ii), E-(iii)
 - (2) A-(iv), B-(iii), C-(v), D-(i), E-(ii)
 - (3) A-(iii), B-(v), C-(i), D-(ii), E-(iv)
 - (4) A-(v), B-(iv), C-(i), D-(ii), E-(iii)
62. Which of the following vitamins are fat soluble?
- (1) Vitamin B and Vitamin C
 - (2) Vitamin A and Vitamin B
 - (3) Vitamin A, Vitamin D and Vitamin E
 - (4) Vitamin A and Vitamin C
63. Which of the following statements correctly describe(s) the function of transpiration in plants?
- (A) It helps in cooling the plant.
 - (B) It helps in absorption and distribution of water and minerals to leaves.
 - (C) It helps in exchange of gases with the environment.
- (1) A and B
 - (2) B and C
 - (3) A and C
 - (4) A, B and C

64. Which among the following statements is/are true regarding the pressure exerted on a certain area by a brick?

- A. Pressure is inversely proportional to area
 - B. Direction of pressure is opposite to that of the applied force
 - C. Unit of pressure is the same as that of the force
- (1) A and B
 - (2) Only A
 - (3) B and C
 - (4) Only B

65. Shaurya went for a trekking trip. During the trek he accidentally placed his hand on the bush. He felt the sting and his hand started itching. The instructor immediately took a leaf of one of the plants, crushed it and rubbed it on the affected area. What could be the nature of the chemical which caused sting and nature of the leaf respectively?

Nature of chemical which cause sting	Nature of juice in the leaf
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- (1) acidic basic
- (2) basic acidic
- (3) acidic acidic
- (4) acidic acidic

66. Whales, sharks, dolphins and fish are all aquatic animals. Which of the following statements describes their respiratory system correctly?

- (1) All of them breathe through gills.
- (2) Whales and fish breathe through gills.
- (3) Sharks and dolphins breathe through lungs.
- (4) Whales and dolphins breathe through lungs.

67. Choose the correct sequence of steps of removal of waste in the human excretory system.

- (1) Urinary bladder → Kidneys → Ureters → Urethra
- (2) Kidneys → Urinary bladder → Ureters → Urethra
- (3) Kidneys → Ureters → Urinary bladder → Urethra
- (4) Urinary bladder → Kidneys → Urethra → Ureters

68. Match items in Column-I with Column-II.

Mode of reproduction	Plant
A. Cutting	(i) Rose
B. Spores formation	(ii) Potato
C. Fragmentation	(iii) Spirogyra
D. Budding	(iv) Yeast
	(v) Ferns

- (1) A-(ii), B-(iii), C-(v), D-(iv)
 - (2) A-(i), B-(v), C-(iii), D-(iv)
 - (3) A-(v), B-(iii), C-(iv), D-(i)
 - (4) A-(ii), B-(v), C-(iv), D-(i)
69. Consider the following aspects of substances involved in a chemical reaction:
- A. Physical state of all the substances
 - B. Number of molecules of all substances
 - C. Number of atoms of each substance
 - D. Sum of masses of all atoms of substances

- Which of the above remain the same before and after a chemical reaction has taken place?
- (1) A and B (2) B and C
(3) C and D (4) A and D
70. A gas is produced when a metal reacts with acids. Which of the following statements is true about this gas.
- (1) It turns lime water milky.
(2) It has a pungent smell.
(3) It burns with pop sound.
(4) It gives dense white fumes with solution of ammonia.
71. A man purchased 'X' to use it as fuel for cooking. What qualities 'X' solution possess to be used as a fuel?
- A. Low ignition temperature and cheap.
B. High calorific values and low ignition temperature.
C. Moderate calorific value and non-toxic.
D. Moderate ignition temperature and cheap.
E. Low calorific value and non-toxic.
- (1) A, B (2) B, C
(3) A, E (4) C, D
72. The purpose of adding potassium permanganate (KMnO_4) in water in a distillation plant is to—
- (1) decrease the boiling temperature of water
(2) increase the pH of water
(3) remove the organic impurities
(4) increase the boiling point of water
73. Read the statements given below and choose the correct option.
- Assertion (A):** A switch is a source of electric current in a circuit.
Reasoning (R): When the switch is open (off), the air gap between the terminals prevents the flow of current.
- (1) Both A and R are true and R is the correct explanation of A.
(2) Both A and R are true but R is not its correct explanation.
(3) A is false but R is true.
(4) Both A and R are false.
74. A lighter and a heavier object possess the same kinetic energy. Which of the following statements will be true regarding their velocities?
- (1) Velocities of heavier object is greater than velocity of lighter object.
(2) Both will have same velocity.
(3) Velocity of heavier object is less than lighter object.
(4) Velocities can't be compared.
75. The place inside the earth's crust where the earthquake originates is called as
- (1) focus of the earthquake.
(2) epicentre of the earthquake.
(3) fault zone of the earth.
(4) seismic zone of the earth.
76. A teacher asks students to suggest a method to demagnetise a magnet. Some responses are:
- A. "dropping a magnet on floor several times"
B. "breaking the magnet into 2 halves"
C. "heating the magnet"
D. "throwing the magnet in water"
E. "by hammering it"
- Which of the following are correct?
- (1) A, B and D (2) C, D and E
(3) A, C and E (4) C, D and B
77. Which of the following statements is **incorrect**?
- (1) Rolling friction is greater than sliding friction.
(2) Sliding friction is less than static friction.
(3) Static friction is greater than rolling friction.
(4) Sliding friction is greater than rolling friction.
78. A convex lens submerged in a liquid medium of higher refractive index will act as a—
- (1) Divergent lens (2) Plane mirror
(3) Concave mirror (4) Convergent lens
79. The characteristics of sound that distinguishes between two different sounds of same pitch and loudness.
- (1) Intensity (2) Timbre
(3) Shrillness (4) Amplitude
80. Read the statements given below and choose the correct option:
- Assertion (A):** Refrigerator pipes are painted with a black colour.
Reason (R): Good absorbers of heat are also good radiators.
- Which of the following is true?
- (1) Both A and R are true and R is the correct explanation.
(2) Both A and R are true but R is not the correct explanation for A.
(3) A is not correct but R is correct.
(4) Both A and R are not correct.
81. Which of the following is most appropriate: Sequence of planning for your science classroom using inquiry approach in teaching of topic 'Heat and Temperature'.
- A. ask students to infer direction of heat flow in different objects.
B. ask students to explore what happens when they place a container with hot water inside a container with cold water.
C. ask students to describe relationship between heat and temperature.
- (1) A → B → C (2) C → B → A
(3) B → C → A (4) A → C → B
82. For nurturing creativity in science classroom among students, a teacher can do all of the following, except:
- (1) Encourage students to frame answers in a prescribed manner.
(2) Assist students in developing models of inquiry.
(3) Guide students in the use of a multidisciplinary approach.
(4) Provide a rich variety of learning experiences to students.

83. Which of the following steps would precede the rest in an inquiry oriented class in which image-formation in plane mirrors is being introduced in class-VII.
- (1) Students draw the ray diagram depicting the path of light as it travels from object to mirror to observer.
 - (2) Students place a number of objects at different positions in front of a mirror and observe their images.
 - (3) The definition and explanation of the laws of reflection is provided in the beginning by the teacher.
 - (4) Teacher demonstrates the process of ray diagram.
84. A teacher wishes to apply the problem-solving strategy to help students understand various ways to conserve energy in a school. The first step in the problem-solving strategy will be:
- (1) Collecting data about energy-usage
 - (2) Identifying wasteful practices
 - (3) Evaluating effectiveness of steps taken
 - (4) Taking remedial measures like awareness campaigns
85. A teacher asks the following questions while involving students in an investigatory activity on germination of seeds.
- A. How much do they grow if we double the amount of water?
 - B. How much are they growing every week?
- Which of the following process skills are developed by these questions:
- (1) Controlling variable and observation
 - (2) Classification and observation
 - (3) Inference and hypothesis
 - (4) Observation and classification
86. Consider the statements given below and choose the correct option:
Assertion (A): A teacher should teach each science concept assuming students know nothing.
Reasoning (R): Science is an abstract subject with no clear interconnectedness between scientific concepts.
- (1) Both Assertion and Reasoning are true and Reasoning is its correct explanation.
 - (2) Both Assertion and Reasoning are true but Reasoning is not its correct explanation.
 - (3) Assertion is true but Reasoning is false.
 - (4) Both Assertion and Reasoning are false.
87. Asking questions such as "Can you think of a different and better way of trying out your ideas?" After an investigatory project helps student to:
- (1) reflect critically
 - (2) communicate
 - (3) observe
 - (4) hypothesize
88. A teacher introduced the topic of cyclones in class by asking the following questions (without mentioning the topic to be taught):
 Have you heard about heavy rains in West Bengal and Odissa in 2021? Has anyone of you heard the term "Yaas"? What could be the objective of the teacher behind asking these questions to students?
- (1) To check general knowledge of students
 - (2) To make the class attentive.
 - (3) To contextualise the topic.
 - (4) To break the monotony of the class.
89. Which of the following attributes are essential components of scientific temper?
- (a) Open mindedness
 - (b) Scepticism
 - (c) Subjectivity
 - (d) Rigidity
- (1) b, c
 - (2) c, d
 - (3) a, b
 - (4) a, d
90. Choose the correct statement:
- (1) Science is a blend of logic and imagination
 - (2) Science is a process and not a product.
 - (3) Science is all about the experimentation.
 - (4) Only science can inculcate values among students.

Language: English

Directions (91-99): Read the passage given below and answer the questions that follow by selecting the correct most appropriate options.

Cases of flight abroad caused by political persecution apart, people emigrate mostly for economic betterment. Even many asylum seekers who wash up on western shores are in fact economic migrants. Pundits predict that with the advance towards a globalised economy, this sort of migration will become unnecessary. Yet, of this planet's six billion people, more than four billion still live in less than one hundred rupees a day, of which more than one billion live on less than seventy-five rupees a day. The rewards of globalisation have spread unevenly. And where they have spread, they have whetted the appetite for a better life so much that salaries from jobs in the Bengaluru back offices or call centres of international companies may not be able to meet. Most illegal Indian immigrants seem to be from Punjab, one of the most prosperous states in the country.

Illegal immigration cannot be stopped. It can only be checked. For this, without doubt, border control regimes in the developed world that seek to keep out foreigners have to first loosen up. In any case, these laws go against the right to work, the right to free choice the employment and protection against unemployment enshrined in Article 23 of universal Declaration of Human Rights. More than this, the realisation that they could be stranded without an adequate work force in the years to come has already spurred an awareness in many host countries that their immigration laws need to be relaxed. Here, India could learn a lesson from Sri Lanka which plays an active facilitating role in economic emigration. It assesses demand for labour abroad, provides basic training, even language skills to potential emigrants and runs a large-scale awareness campaign about the risks of illegal immigration abroad.

91. People do not migrate to other countries because of:
- (1) political harassment.
 - (2) social injustice.
 - (3) poverty at home.
 - (4) better job opportunities there.
92. It is believed that when economy becomes globalised:
- (1) people will start earning around one hundred fifty rupees a day.
 - (2) political persecution will stop.
 - (3) nobody will wash the western shores.
 - (4) poor people will stop going to the rich countries.

93. As a result of globalisation
 (1) all countries have become rich.
 (2) all countries have remained poor.
 (3) people have stopped seeking political asylum.
 (4) people are demanding higher salaries.
94. Illegal immigration can be stopped:
 (1) through strict border control.
 (2) by giving jobs to the poor.
 (3) by 'loosening up' the foreigners
 (4) by relaxing the immigration laws.
95. Study the following statements:
 A. Workers in Bengaluru are asking for higher salaries.
 B. Very soon western countries will be left without a trained work force.
 (1) A is right and B is wrong.
 (2) A is wrong and B is right.
 (3) Both A and B are right.
 (4) Both A and B are wrong.
96. 'Yet, of this planets'
 Which part of speech is the underlined word?
 (1) Adverb (2) Adjective
 (3) Conjunction (4) Interjection
97. 'The sending country also'
 Which part of speech is the underlined word?
 (1) Adverb (2) Adjective
 (3) Conjunction (4) Interjection
98. 'They have whetted the appetite'
 The word 'whetted' means;
 (1) moistened (2) increased
 (3) flowed (4) reduced
99. 'an active facilitating role'
 The word 'facilitating' means:
 (1) helpful (2) important
 (3) regular (5) irritating

Directions (100-105): Read the excerpt given below and answer the questions that follow by selecting the correct/most appropriate options:

Did ye not hear it? No; it was but the wind,
 or the car rattling over the stony street;
 On with the dance! Let joy be unconfined;
 No sleep till morn, when youth and pleasure meet
 To chase the glowing hours with flying feet
 But hark! that heavy sound breaks in once more,
 As if the clouds its echo would repeat;
 Ans nearer, clearer, deadlier, than before!
 Arm! Arm! It is it is the cannon's opening roar!

100. The narrator heard the sound of:
 (1) wind. (2) a car.
 (3) firing the cannon. (4) thunder of the clouds.
101. What were the young men doing?
 (1) Dancing (2) Singing
 (3) Flying (4) Fighting
102. Two contrasting images pictured in these lines are:
 (1) dance and song (2) dance and war
 (3) arm and cannon (4) youth and pleasure
103. What would the clouds echo?
 (1) rattling of the car
 (2) roar of the gun

- (3) noise of the wind
 (4) limitless joy of the youth
104. 'the car rattling over the stony street'
 Which figure of speech has been used in the above line?
 (1) Onomatopoeia (2) Metaphor
 (3) Personification (4) Assonance
105. 'And nearer, clearer, deadlier than before'
 Name the figure of speech used in this line.
 (1) Onomatopoeia (2) Metaphor
 (3) Personification (4) Assonance
106. Connotative meaning of a word is
 (1) Symbolic (2) Factual meaning
 (3) Semantic meaning (4) Literal meaning
107. Which method of teaching believes in 'learning form through message-focus'?
 (1) Task based teaching (2) Structural approach
 (3) Dogma approach (4) Direct method
108. Rohit Irfan, who is a Hindi native speaker, is from Lucknow and has now moved to Bangalore for his studies. In his college he as opted for the study of Spanish and he has been able to use the language of the place, Kannada very well for different purposes. Which language is he learning and which language is he acquiring?
 (1) Rohit Irfan learning Spanish and acquiring Kannada.
 (2) He is acquiring Spanish and learning Kannada.
 (3) He is learning both the languages
 (4) He is acquiring both the languages.
109. A teacher found a hotel menu and brought to her classroom. Having divided the class into groups of five, she asked her students to order food to eat for an amount of Rs. 1400 for five people keeping an amount of Rs. 70 for a three wheeler to go back home. Two of them are vegetarians and one is allergic to mushrooms. Learners in groups have to interact and order the food item to eat on the above condition. What is the piece of work in language teaching-learning known as?
 (1) A task (2) A project
 (3) Language processing (4) Ordering a men
110. Which of the following statements are true and which of them are not true?
 a. A language without script is dialect.
 b. A language may have many dialect.
 c. Some languages do not have grammar.
 d. Sign language does not have a grammar.
 (1) 'b' is true and 'a', 'c' and 'd' are not true.
 (2) 'b' and 'd' are not true and 'c' and 'a' are true.
 (3) 'a', 'c' and 'd' are true and 'b' is not true.
 (4) 'c' and 'a' are true and 'a' and 'd' are not true.
111. Which of the following is a post reading activity?
 (1) The talk about the author by the teacher.
 (2) Asking questions to relate the text with learners life experiences
 (3) Silent reading in groups of four
 (4) Creating a subtext from the given jumbled sentences.
112. When we read a text or a story we use our knowledge of the structure of the language to predict what would come next. What is this known as?
 (1) Semantic (2) Structural cues
 (3) Syntactic cues (4) Thematic cues

113. Having grouped her learners into groups of five, a teacher read out a text to them and then asks them to jot down words and fragments of sentences to recreate the text, not necessarily the exact text. What is this strategy known as?

- (1) Mutual dictation (2) Composition dictation
(3) Grammar dictation (4) Plain dictation

114. Which of the following statements are true of teaching of poetry in language classroom?

- a. Poetry teaching-learning helps in learning of grammar.
b. Poetry teaching-learning helps in learning of poetical devices.
c. Poetry teaching-learning is for enjoyment and delight.
d. Poetry teaching is for learning of pronunciation and speech.

- (1) 'a' and 'd' are true (2) 'b' and 'c' are true
(3) 'd' is true (4) 'd' and 'b' are true

115. What is portfolio assessment?

- (1) Collection of instances of learning by the teacher and using it for assessment of learning.
(2) Recording of the formative and summative assessment activities together and using them for assessment.
(3) Assessment activities other than summative assessment.
(4) Assessment activities other than formative assessment.

116. What does BICS stand for?

- (1) Basic interpersonal communicative skills
(2) Basic internal communicational strategy
(3) Basic interpersonal communicational skills
(4) Basic internal communication skills

117. What does 'comprehensible input' means in language learning?

- (1) Engagement with language which is comprehensible to all learners.
(2) Engagement with written and formal language below the level current level of master of the learner.
(3) Exposure to high level of written and spoken language above the learner's current level of mastery.
(4) Exposure to meaningful oral and written language somewhat above the learners' current level of mastery.

118. Which of the following is not considered as materials for language teaching-learning?

- (1) Textbook and supplementary readers
(2) Computer Programming
(3) Newspaper
(4) Audio recorded stories

119. Multilingualism in school education in India refers to

- (1) Recognising the multilingual characteristics of the country and using it as a resource in teaching-learning of languages and content subjects.
(2) Learning as many languages as possible by all learners in order to cope with the developments.
(3) Learning of English by all and studying in English medium.
(4) Learning of three languages moving from mother tongue to Hindi and English.

120. Which of the following is true of Sign Language?

- (1) Sign language is an artificial language.
(2) Sign language has grammar and a natural language.

(3) Sign language is not natural language like other human languages.

(4) Sign language has not been recognised in school education.

Language: Hindi

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

हमारे संविधान में स्त्री-पुरुष दोनों को हर दृष्टि से समान समझा गया है, साथ ही उन सभी प्रथाओं के त्याग की बात कही गई है जिनसे नारी के आत्म सम्मान पर आँच आती हो। यह सर्वमान्य तथ्य है कि हमारी पारिवारिक, सामाजिक और राष्ट्रीय संरचना नर-नारी दोनों के परस्पर सहयोग और सहभागिता पर ही निर्भर है। पारिवारिक व्यवस्था का तो पूरा उत्तरदायित्व ही नारी पर रहता है। मानव समाज की रचना में दोनों का समान योगदान है। यह सब होते हुए भी हमारा समाज पुरुष को श्रेष्ठ और नारी को हीन मानता है। हमारा वैदिक कालीन इतिहास इस देश में नर-नारी समानता का एक उज्ज्वल उदाहरण है। उस समय समाज में नारी का बहुत ऊँचा स्थान था। परदे की प्रथा नहीं थी। उनके लिए शिक्षा के द्वारा खुले थे। अनेक स्त्रियाँ ऋषि-पद पर प्रतिष्ठित थीं। वे शास्त्रार्थों में खुलकर भाग लेती थीं, धार्मिक और सामाजिक कार्यों में हाथ बैटती थीं तथा युद्ध में भाग लेती थीं। विवाह के मामले में उन्हें स्वतंत्रता प्राप्त थी। बाल विवाह की प्रथा नहीं थी। विधवा विवाह का निषेध नहीं था। सती प्रथा का तो कहीं नाम भी नहीं था। परिवार में स्त्री का बहुत सम्मान था। वह यज्ञ करती थी, दान देती थी। यज्ञ में पति के साथ पत्नी के बैठे बिना यज्ञ पूरा नहीं माना जाता था। मनुस्मृति में स्पष्ट लिखा है कि जहाँ नारी की पूजा होती है वहाँ देवता निवास करते हैं। कालांतर में यह स्थिति नहीं रही। सार्वजनिक कार्यों से हटकर उसका जीवन घरेलू काम-काज में बीतने लगा।

121. 'यह सब होते हुए भी हमारा समाज पुरुष को श्रेष्ठ और नारी को हीन मानता है।'

रेखांकित अंश का गद्यांश के संदर्भ में क्या आशय है—

- (1) नारी के आत्म सम्मान का ज्ञान रखते हुए भी
(2) स्त्री-पुरुष में प्राकृतिक रूप से अंतर होते हुए भी
(3) संविधान और परम्परा में स्त्री-पुरुष को समान माने जाने पर भी
(4) परिवार की व्यवस्था का उत्तरदायित्व नारी पर होते हुए भी

122. 'उज्ज्वल' शब्द का सही सन्धि-विच्छेद होगा—

- (1) उज् + ज्वल (2) उत् + ज्वल
(3) उद् + ज्वल (4) उच् + ज्वल

123. वैदिककालीन समाज के संदर्भ में निम्नलिखित कथनों पर विचार कीजिए और सत्य कथन/कथनों को चुनिए।

- (क) समाज में नारी का स्थान बहुत ऊँचा था।
(ख) संविधान के अनुसार स्त्री-पुरुष को समान माना गया है।
(ग) महिलाएँ युद्ध में भाग ले सकती थीं।

- (1) केवल (ख) (2) (क) और (ख)
(3) (ख) और (ग) (4) (क) और (ग)

124. 'सर्वमान्य तथ्य' किसे कहा गया है?

- (1) समाज में पुरुष को श्रेष्ठ माना जाता है।
(2) सामाजिक संरचना में पुरुष की महत्वपूर्ण भूमिका होती है।
(3) पारिवारिक व्यवस्था करना नारी का उत्तरदायित्व है।
(4) सामाजिक संरचना स्त्री-पुरुष की सहभागिता पर निर्भर करता है।

125. अनुच्छेद के अनुसार वैदिक काल में कौन-सी प्रथा थी?

- (1) बचवन में ही विवाह कर देने की प्रथा
(2) यज्ञ में पति-पत्नी के साथ बैठने की प्रथा
(3) पति के शव के साथ सती होने की प्रथा

- (4) विवाह के अवसर पर दहेज देने की प्रथा
126. प्रसंगानुसार 'कालांतर' का अर्थ है—
- (1) समय के भीतर (2) समयानुसार
(3) समय बदलने पर (4) समय आ जाने पर
127. समास रचना की दृष्टि से कौन-सा समास पद शेष से भिन्न है ?
- (1) स्त्री-पुरुष (2) काम-काज
(3) नर-नारी (4) सती-प्रथा
128. 'वैदिक काल में परिवार में स्त्री को बहुत सम्मान प्राप्त था।' इसके समर्थन में निम्नलिखित में से कौन-सा तर्क अनुपयुक्त है ?
- (1) महिलाएँ शास्त्रार्थ में खुलकर भाग लेती थीं।
(2) महिलाएँ यज्ञ करती और दान देती थीं।
(3) जहाँ नारी की पूजा होती है वहाँ देवता निवास करते हैं।
(4) विवाह के मामले में उन्हें स्वतंत्रता प्राप्त थी।
- निर्देश (129-135): निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सबसे उपयुक्त उत्तर वाले विकल्प चुनिए—**
- राष्ट्रीय अस्मिता का अर्थ है उन लक्षणों और विशेषताओं का पहचान, जिनसे राष्ट्र का अपना एक स्वरूप बनता है, विश्व में उसकी अपनी अलग पहचान बनती है, वह एक स्वतंत्र, प्रभुत्व सम्पन्न राष्ट्र के रूप में प्रतिष्ठित होता है। इस पहचान से ही हमारे मन में राष्ट्र के प्रति अपनत्व, प्रेम, निष्ठा और समर्पण की भावना पैदा होती है। हम धर्म, सम्प्राय, वर्ग, जाति, भाषा, क्षेत्र, आदि से परे एकजुट होकर राष्ट्रीय विकास के लिए प्रयत्नशील होते हैं। देश के किसी कोने में आई हुई विपत्ति को अपनी विपत्ति मानकर वहाँ के लोगों की सहायता करते हैं। हम समस्त भारतवासी एक हैं, यह राष्ट्र हमारा है, इसके प्रति हमारा दायित्व है, इसके अस्तित्व और इसके अभ्युत्थान में ही हमारा अस्तित्व और कल्याण निहित है आदि मनोभाव ही राष्ट्रीय अस्मिता की पहचान के आधार हैं। संक्षेप में, राष्ट्रीय अस्मिता की पहचान और उसकी पोषक विषयवस्तु के अंतर्गत उल्लेखनीय है कि हमारा देश एक विशाल देश है। इसी कारण से इसे उपमहाद्वीप कहा जाता है। ऐसे विशाल देश में भौगोलिक विविधता एक स्वाभाविक बात है। दुर्गम उच्च शिखर वाले पर्वतीय क्षेत्र, पठारी भाग, मैदानी भाग, रेगिस्तानी भाग आदि अनेक प्राकृतिक भू-रचना देखने को मिलती है। जलवायु की विविधता, आजीविका के साधनों की विविधता और रहन-सहन की विविधता। किन्तु इन विविधताओं के रहते हुए भी भारत एक भौगोलिक इकाई रहा है। यहाँ तक कि समय-समय पर अनेक राजनैतिक सत्ताओं में विभक्त रहने पर भी धार्मिक और सांस्कृतिक विचारों, संस्कारों और आस्थाओं ने इसे एक सूत्र में बाँधे रखा है। उत्तर के हिमालय, पूर्व, दक्षिण और पश्चिम के सागरों ने इसे इस भौगोलिक इकाई के रूप में सीमांकित किए रखा है। जब भी हमारे ज्ञास्त्रों, महाकाव्यों आदि में भौगोलिक सीमा और विस्तार की बात हुई है, कश्मीर से कन्याकुमारी और कच्छ से अरुणाचल तक भारत को एक भौगोलिक इकाई के रूप में वर्णित किया गया है।
129. राष्ट्रीय अस्मिता की पहचान के संदर्भ में निम्नलिखित कथनों को पढ़कर उपयुक्त लक्षण/लक्षणों को चुनिए।
- (क) राष्ट्र का अपना स्वरूप प्रतिष्ठित होता है।
(ख) राष्ट्र का मनोभाव ज्ञात होता है।
(ग) देश के प्रति निष्ठा और समर्पण का भाव उत्पन्न होता है।
- (1) केवल (ग) (2) (क) और (ग)
(3) (ग) और (ख) (4) (ख) और (क)
130. व्याकरणिक कोटि की दृष्टि से समूह से भिन्न शब्द को पहचानिए—
- (1) राष्ट्रीय (2) रेगिस्तानी
(3) सांस्कृतिक (4) विविधता
131. 'इन विविधताओं के रहते हुए भी भारत एक भौगोलिक इकाई रहा है', कौन-सी विविधता इन विविधताओं में सम्मिलित नहीं है ?
- (1) पर्वतों और नदियों की (2) आजीविका के साधनों की
(3) मौसम और जलवायु की (4) रहन-सहन की

132. भारत को एक उपमहाद्वीप कहा जाता है, क्योंकि यह—
- (1) एक छोटा महाद्वीप है।
(2) एक बड़ा द्वीप है।
(3) भौगोलिक विविधताओं वाला विशाल देश है।
(4) एशिया महाद्वीप का सबसे बड़ा देश है।
133. 'भौगोलिक इकाई' में दोनों शब्द हैं क्रमशः—
- (1) विशेषण - विशेष्य (2) विशेष्य - विशेषण
(3) दहाई - इकाई (4) क्रिया - विशेषण
134. 'हम समस्त भारतवासी एक हैं', रचना की दृष्टि से उपर्युक्त वाक्य है—
- (1) सरल वाक्य (2) कठिन वाक्य
(3) मिश्र वाक्य (4) संयुक्त वाक्य
135. हमारे शास्त्रों और महाकाव्यों में भारत को कहा गया है—
- (1) वीरों का देश
(2) एक भौगोलिक इकाई
(3) राम और कृष्ण की अवतार भूमि
(4) विविधताओं की पहचान
136. एक बहुभाषिक कक्षा में शिक्षक को संसाधन सामग्री का निर्माण, चयन करते समय पर सबसे अधिक ध्यान देना चाहिए।
- (1) भाषाओं की जटिलता
(2) भाषिक विविधता
(3) संसाधन सामग्री का मूल्य
(4) संसाधन सामग्री की उपलब्धता
137. बहुभाषिकता से निश्चित लाभ होते हैं।
- (1) भावनात्मक (2) व्यवहारगत
(3) संज्ञात्मक (4) सक्रियात्मक
138. सोद्देश्यपूर्ण लेखन का उदाहरण नहीं है—
- (1) नौकरी के लिए आवेदन पत्र लिखिए।
(2) मंचन के सामान की सूची बनाइए।
(3) सुलेख का कार्य कीजिए।
(4) साइकिल चारों हो जाने की सूचना लिखिए।
139. हिन्दी भाषा आकलन की दृष्टि से कौन-सा प्रश्न सबसे बेहतर है—
- (1) ब्लाड बैंक में रक्तदान से क्या लाभ है ?
(2) खून को 'भानुमती का पिटास' क्यों कहा जाता है ?
(3) पेट में कीड़े क्यों हो जाते हैं ?
(4) किसी ऐसी घटना का वर्णन कीजिए जब रक्त की कमी हो गई हो।
140. पाठ में आए 'व्याहारिक', 'शारीरिक' शब्दों में 'इक' प्रत्यय का प्रयोग हुआ है। "आप भी 'इक' प्रत्यय से तीन शब्द बनाइए।" यह प्रश्न का उदाहरण है।
- (1) व्याकरण की महत्ता (2) शब्दावली की महत्ता
(3) प्रत्ययों के प्रयोग (4) संदर्भ में व्याकरण
141. सामाजिक अंतःक्रिया का उदाहरण नहीं है—
- (1) दुकानदार से सामान खरीदना
(2) फल-सब्जी बेचना
(3) टी.वी. पर धारावाहिक देखना
(4) पड़ोस के तारुजी से बातचीत करना
142. अंग्रेजी माध्यम के स्कूलों में अंग्रेजी के वर्चस्व को कम करने के लिए के मूल्यवर्धन की जरूरत है।
- (1) हिन्दी व अन्य विदेशी भाषाओं
(2) अन्य भारतीय भाषाओं
(3) अन्य विदेशी भाषाओं
(4) स्थानीय व विदेशी भाषाओं

ANSWER KEY

143. विद्यालयों में भाषा दो रूपों में मौजूदा है। एक विषय के रूप में और दूसरा, के रूप में।

- (1) कला (2) माध्यम
(3) अभिव्यक्ति (4) आकलन

144. कक्षा आठ में बच्चों के पठन-अवबोधन को विकसित करने का सर्वोत्कृष्ट उदाहरण है—

- (1) अनुच्छेद पढ़कर 'क्या' वाले प्रश्न पूछना।
(2) अनुच्छेद पढ़कर प्रश्न बनाना।
(3) अनुच्छेद में 'संज्ञा' शब्दों को रेखांकित करना।
(4) अनुच्छेद में कठिन शब्दों को रेखांकित करना।

145. व्याकरण शिक्षण की आगमन विधि पर बल देती है।

- (1) पाठ्य-पुस्तक (2) सूत्र
(3) उदाहरण (4) नियम

146. भाषा सीखने-सिखाने की प्रक्रिया का अभिन्न अंग है।

- (1) कविता (2) कहानी
(3) व्याकरण (4) आकलन

147. भाषा कौशलों के विकास की दृष्टि से कौन-सी गतिविधि सर्वाधिक उपयुक्त है?

- (1) रेडियो पर भाषण सुनना (2) निजी कहानी का मंचन करना
(3) श्रुतलेख करना (4) सुलेख करना

148. बच्चों की सृजनात्मक लिखित अभिव्यक्ति के विकास में सर्वाधिक सहायक है—

- (1) कहानी का शीर्षक लिखना (2) कविता का शीर्षक लिखना
(3) विज्ञापन, पोस्टर बनाना (4) सुनकर लिखना

149. पढ़ने की प्रक्रिया में सर्वाधिक महत्वपूर्ण है—

- (1) कठिन शब्दों का अर्थ (2) तीव्र गति से पढ़ना
(3) अर्थ-व्यंजन (4) पात्रों का नाम याद रखना

150. कक्षा सात की सलमा अक्सर 'पकड़' को 'पकड' और 'डमरू' को 'डमरू' लिखती है। एक भाषा शिक्षक के रूप में आप क्या कहेंगे?

- (1) सलमा 'ड' और 'ड़' का ज्ञान नहीं रखती।
(2) सलमा लापरवाही से लिखती है।
(3) सलमा की लेखन में अरुचि है।
(4) सलमा का, 'ड'/'ड़' का ध्वनि-संकेत संबंध कमजोर है।

Child Development and Pedagogy

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

Mathematics and Science

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

Language: English

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

Language: Hindi

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

Child Development and Pedagogy

1. Option (1) is correct.

Explanation:

(A) Humans are able to learn and remember new things in motor and cognitive domains throughout their life span. This is true as humans have the capacity to acquire new knowledge and skills, both in terms of physical actions (motor domain) and mental processes (cognitive domain) throughout their lives.

(R) The outcome of a severely deprived childhood can be easily changed in later years. This is true as research has shown that individuals who have experienced severe deprivation or adversity in their early years can still undergo positive changes and improvements in various aspects of their lives when provided with supportive and enriching environments in later years.

Therefore, both (A) and (R) are true, and (R) provides a correct explanation of (A).

2. Option (2) is correct.

Explanation: Principle of spiral versus linear advancement:

The path followed in development by the child is not straight and linear, and development at any stage never takes place at a constant or steady pace. The principles are:

1. Development is Continuous
2. Development is Gradual
3. Development is Sequential
4. Rate of Development Varies Person to Person
5. Development Proceeds from General to Specific

Growth is not linear. It is multi-dimensional. Growth does not follow a straight line but rather a spiral through space-time.

A child's brain development is affected by the environment (what a child is born with; their inherited traits and abilities) and nurture (what a child experiences, the care they receive, and their relationships with people). A spiral curriculum focuses on revisiting topics, subjects or themes throughout the course, but it is not just the repetition of a topic taught. It also requires deepening, with each successive encounter building on the previous one.

3. Option (1) is correct.

Explanation: Mass media are many, which are technically called passive agencies of education. They influence the attitude and behaviour of the people indirectly. These agencies cover entertainment, books, educational institutions and morality and moral tone of the people.

Social media in the classroom can prevent human interaction.

Cyberbullying on social media websites and posting inappropriate content on social media websites impact a person negatively.

The children watching cartoons exhibited a high-level language acquisition and cognitive development; however, they sometimes exhibited aggressive and violent behaviours toward their siblings and friends.

4. Option (3) is correct.

Explanation: The methods involved in experimental learning and assessment:

- Education for society and democracy.
- Collaborative and cooperative learning.
- Learning as opposed to rote knowledge.
- Flexible timetable and seating arrangement.
- Emphasis on lifelong learning and social skills.
- Integrated curriculum focused on thematic units.

A system of education that gives flexibility in learning procedures through activities determined by the needs and capacities of the individual child, aiming to integrate academic with social development.

5. Option (2) is correct.

Explanation: The theory of cognitive development (Jean Piaget) suggests that children move through four stages of intellectual development and the maturity of children's thoughts at each stage—a Child's development results from physical and cognitive (biological) maturation and environmental exposure.

Each stage experiences a different type of intelligence.

Stage	Age	Goal
Sensori-motor	Birth to 18-24 months	Object permanence

Pre-operational	2 to 7 years old	Symbolic thought
Concrete operational	7 to 11 years	Logical thought
Formal operational	Adolescence to adulthood	Scientific reasoning

6. Option (2) is correct.

Explanation: At about age 11, adolescents can think abstractly and combine and classify items more sophisticatedly during the formal operational stage.

They can understand division and fractions without dividing things and solve theoretical problems.

Significant Characteristics and Developmental Changes:

Concrete operations relate to things, whereas formal operations relate to ideas. Formal operational thought is free from physical and perceptual constraints.

Adolescents can deal with theoretical problems with many possible solutions, which helps them to engage in scientific reasoning, politics, ethics and more.

7. Option (3) is correct.

Explanation: Vygotsky's socio-cultural theory states that a child learns language and gains knowledge through social interactions. His theory states that "learning is a crucially social process instead of an independent journey of discovery."

In his theory, culture is essential in shaping cognitive development and varies in different cultures. He also emphasized the role of language as the root of all learning, an essential tool for communication and cognitive development.

He emphasized the role of cultural tools such as books, media, computers, and social software and psychological tools (language, signs, writing, and symbols) in cognitive development.

8. Option (4) is correct.

Explanation: Vygotsky's theory of scaffolding focuses on the ability of an individual to learn information through the help of a more informed individual. When used effectively, scaffolding can help students learn content they would not have been able to process independently.

Vygotsky's scaffolding theory helps learners understand new information and content by working with an educator who has a better knowledge

- of the material, making the learning process manageable for everyone.
9. **Option (1) is correct.**
Explanation: Stage 3 (developing good interpersonal relationships) of moral development by Kohlberg refers to the "good boy-good girl" orientation, living up to social expectations and roles. Again, the emphasis is on conforming to the social standards of being "nice" and considering how choices influence relationships.
10. **Option (4) is correct.**
Explanation: In his multiple intelligence theory, Howard Gardner states that people have multiple kinds of intelligence, such as musical, interpersonal, spatial-visual, and linguistic intelligence. He further suggests that a person may possess a range of abilities. For example, an individual might have good verbal, musical, and naturalistic intelligence skills. Eight kinds of intelligence he proposed are:
- Linguistics
 - Musical
 - Logical-mathematical
 - Spatial
 - Bodily-kinesthetic
 - Interpersonal
 - Intrapersonal
 - Naturalist
11. **Option (2) is correct.**
Explanation: In order to encourage students to recognize gender stereotypes and make them challenge them: A teacher should create a safe space and prompt children to challenge stereotypes when they hear them. They should be encouraged to talk about stereotypes. A teacher should provide a range of role models to create awareness. For example, division in the class and seating arrangements should not be gender-based, and there should be no 'girls' and boys' jobs.
12. **Option (1) is correct.**
Explanation: Piaget considered that cognitive development is independent of language and thought determines language. According to Piaget, thought emerges first, and language becomes the intermediary providing how later concepts and conceptual thinking develop. Piaget believed children need first to develop mentally before language acquisition can occur. According to him, children first create mental structures within the mind (schemas), and from these schemas, language development happens.
13. **Option (2) is correct.**
Explanation: NEP 2020 aims to transform the nature of learning assessments from one that is summative and primarily tests rote memorization skills to one that is:
1. More regular and formative,
 2. more competency-based and
 3. one that tests higher-order skills, such as analysis, critical thinking, and conceptual clarity.
14. **Option (2) is correct.**
Explanation: Labelling affects children and the way they perceive themselves. For example, how a child gets labelled by parents, teachers, friends, or society can affect his image of himself. A labelled child's personality will be a reflection of it. Labelling often does more damage than good by putting children in boxes. When students get identified with a label, it is very likely that they will experience social stigmatization and might feel treated equally.
15. **Option (2) is correct.**
Explanation: A culturally inclusive curriculum reflects society's cultural, linguistic and religious diversity. Teachers strive to provide the necessary support to encourage their participation. The following are the characteristics of a culturally inclusive classroom: The teacher organizes the classroom with the scope of heterogeneity in the classroom. The teacher takes exceptional care of disabled children. The teacher seeks the support of specialists to help slow learners. The teacher shows sympathy for students with disabilities.
16. **Option (3) is correct.**
Explanation: Dyslexia is a learning disorder. It causes difficulty in reading, and individuals with dyslexia have difficulty identifying speech sounds and learning to associate them with letters and words (decoding). It is also called a reading disability. Dyslexia results from individual differences in areas of the brain that process language.
17. **Option (3) is correct.**
Explanation: Creative children can create or produce something. They can solve problems or tasks creatively by generating many original ideas. A child with a creative mind will display high levels of ability to create original and imaginative ideas.
18. **Option (3) is correct.**
Explanation: ADHD is a neuro-developmental disorder in a child which affects brain development. It can persist into adulthood. Children with ADHD have the following symptoms: First, they have difficulty paying attention. They may have difficulty controlling impulsive behaviours and acting
- without considering the consequences. They may display hyperactivity.
19. **Option (3) is correct.**
Explanation: Ability grouping in language education refers to putting students in a classroom or small groups based on ability or achievement by assessing ability with a standardized test and practising grouping of learners based on their strengths and talents within a learning environment.
20. **Option (4) is correct.**
Explanation: Gifted students have an enhanced intellectual, academic, and social-emotional quotient. They can comprehend information which is above as compared to their peers. They exhibit astounding emotional depth and sensitivity at a young age. They have an intense curiosity and are enthusiastic about unique interests and topics. They have a mature sense of humour, creative problem-solving and imaginative expression. They have the ability to grasp new information quickly with minimal repetition.
21. **Option (4) is correct.**
Explanation: Self-reflection. Engaging students in self-reflection activities helps them analyze their own learning processes, assess their strengths and weaknesses, and set goals for improvement. A teacher can encourage students to reflect on their actions, thoughts, and learning experiences to foster self-awareness and personal growth. This can be achieved through activities such as journaling, group discussions, and individual reflection exercises.
22. **Option (3) is correct.**
Explanation: Conceptual learning helps students and teachers understand how the concepts inter-relate by using various methods like categorizing, naming, and sorting activities to understand individual concepts. For example, a teacher can ask students, "What is it like?" and invite them to describe the key features.
23. **Option (2) is correct.**
Explanation: Some characteristics of effective teaching practices: A teacher should implement tasks that promote reasoning and problem-solving by posing purposeful questions. A teacher should build procedural fluency from conceptual understanding.
24. **Option (2) is correct.**
Explanation: The Discovery Learning Method advocated by Jerome Bruner is a constructivist theory stating

that students construct their understanding and knowledge of the world through their own experiences and reflections.

The five principles of discovery learning are problem-solving, learner management, integrating, connecting, information analysis, and failure & feedback.

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

Explanation: A graphic organizer is a teaching tool using visual symbols to express knowledge and concepts, demonstrating relationships between facts, concepts or ideas. It guides the user's thinking as they build and fill in the graphic organizer. It is also known as a knowledge map, concept map, story map, cognitive organizer, advance organizer, or concept diagram.

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

Explanation: When examining the gap in student performance, the first unit of analysis should be the child. Understanding the individual student's abilities, learning styles, strengths, weaknesses, and socio-emotional factors can provide valuable insights into the under-performance. This analysis helps identify specific areas of improvement and tailor instructional approaches to meet the individual needs of students. It is important to consider other factors such as the system, community, and parents as well, but the focus should initially be on the child as the primary unit of analysis.

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

Explanation: Intrinsic motivation is doing something for self-satisfaction rather than for some goal-oriented purpose.

For example, an intrinsically motivated person acts for the fun or challenge than for external products, pressures, or rewards.

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

Explanation: Curiosity stimulates learning and plays a significant role in learner engagement. People learn the information they are curious about better, as curiosity learning is more enjoyable and rewarding.

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

Explanation: The assertion that teachers must encourage children to share their "naïve" or intuitive theories is true. Intuitive theories refer to the initial ideas or understandings that children develops. Like a ball fell on ground and child sudden learned that things will fall towards the ground from hand. By encouraging children to share these theories, teachers can gain insights into their thought processes and misconceptions, which can inform instruction and support students' learning.

The reason that all children start off with pre-conceptions of reality and these conceptions influence their understanding in schools is also true. Children's prior knowledge and intuitive theories shape their interpretation and understanding of new information. Teachers need to be aware of these pre-conceptions and address any misconceptions or gaps in understanding to facilitate meaningful learning.

Therefore, both the assertion and the reason are true, and the reason provides a valid explanation for the assertion.

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

Explanation: In a socio-constructivist classroom, the main focus should be on tasks that are interesting and make students think deeply. These tasks should challenge them to use their critical thinking skills and come up with their own ideas. It's important for students to actively participate, solve problems, and work together with their classmates. This way, they can learn more effectively and develop their thinking abilities.

Mathematics and Science

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

Explanation:

Terminating decimal refers to the decimal with finite number of digits.

$$\text{Option 1. } \frac{7}{18} = 0.3888\dots$$

$$= 0.\overline{38}$$

It is a non-terminating decimal

$$\text{Option 2. } \frac{11}{250} = 0.044$$

It is a termination decimal

$$\text{Option 3. } \frac{21}{28} = 0.75$$

It is a terminating decimal.

$$\text{So, both } \frac{11}{250} \text{ and } \frac{21}{28} \text{ are terminating}$$

decimal.

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

Explanation:

$$\text{Given: } \frac{547.527}{0.0082} = x$$

$$\Rightarrow x = \left(\frac{547527}{82} \right) \times \left(\frac{10000}{1000} \right)$$

$$\Rightarrow x = \left(\frac{547527}{82} \right) \times 10$$

$$\Rightarrow \frac{x}{10} = \frac{547527}{82}$$

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

Explanation:

Given: Distance = 384,000,000 m

As per the standard form, it can be written as:

$$\Rightarrow (3.84 \times 100,000,000) \text{ m}$$

$$\Rightarrow (3.84 \times 10^8) \text{ m}$$

Now, as per the question,

$$3.84 \times 10^8 = p \times 10^n$$

$$\Rightarrow p = 3.84 \text{ and } n = 8.$$

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

Explanation: Positive numbers are always greater than the negative numbers.

Here, there are 2 negative numbers

$$\text{i.e. } -1\frac{3}{5} \text{ and } -2\frac{1}{3}$$

To find the smaller number, we have to make the denominator same

$$\Rightarrow -1\frac{3}{5} = -\frac{18}{5} \times \frac{3}{3} = -\frac{24}{15}$$

$$\text{and } -2\frac{1}{3} = -\frac{7}{3} \times \frac{5}{5} = -\frac{35}{15}$$

According to the above calculation,

$$-2\frac{1}{3} \text{ is the smallest.}$$

Now, comparing the other three positive numbers.

$$\Rightarrow \frac{1}{2} = 0.5$$

$$\text{and } \frac{2}{5} = 0.4$$

$$\text{and } \left(\frac{2}{5} \right)^{100} = (0.4)^{100}$$

So, here the order will be $(0.4)^{100} < 0.4 < 0.5$

Therefore, ascending order of the given numbers is:

$$-2\frac{1}{3}, -1\frac{3}{5}, \left(\frac{2}{5} \right)^{100}, \frac{2}{5}, \frac{1}{2}$$

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

Explanation: Rule—If the difference between the sum of digits in even place and in odd place is divisible by 11, then the number will be divisible by 11.

Given: Number is @ 78 × 3945

Sum at even place

$$= 8 + 3 + 4 = 15$$

Sum at odd place

$$= 7 + x + 9 + 5$$

$$= 21 + x$$

$$\text{Difference} = 15 - (21 + x)$$

$$= 15 - 21 - x$$

$$= -6 - x$$

Now, putting all the options in place of x and seeing which number will be divisible by 11.

So, the number has to be 5 as

$$-6 - 5 = -11$$

which is divisible by 11.

Therefore, $x = 5$.

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

Explanation:

$$\text{Let } (x - 3) = a$$

$$\Rightarrow a^2 + 5a + 4$$

$$\Rightarrow a^2 + a + 4a + 4$$

$$\Rightarrow a(a + 1) + 4(a + 1)$$

$$\Rightarrow (a + 1)(a + 4)$$

Now, putting $a = x - 3$
 $\Rightarrow (x - 3 + 1)(x - 3 + 4)$
 $\Rightarrow (x - 2)(x + 1)$
 Therefore, one of the factor will be $(x - 2)$

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

Explanation:

Given: $\frac{x^a}{x^b} = x^{12}$

$$\Rightarrow x^{(a-b)} = x^{12}$$

$$\left[\because \frac{x^m}{x^n} = x^{m-n} \right]$$

$$\Rightarrow a^2 - b^2 = 12 \quad [\because x > 1]$$

$$\Rightarrow (a + b)(a - b) = 12$$

$$[\because m^2 - n^2 = (m + n)(m - n)]$$

$$\Rightarrow (a + b) \times (3) = 12 [\because (a - b) = 3]$$

$$\Rightarrow a + b = \frac{12}{3}$$

$$\Rightarrow a + b = 4$$

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

Explanation:

$$\frac{1}{a} - \frac{1}{b} = \frac{b-a}{ab} = \frac{-(a-b)}{ab}$$

$(a - b)$ is given in the question. Therefore, have to find the value of ab .

Formula: $(a - b)^2 = a^2 + b^2 - 2ab$

$$\Rightarrow (7)^2 = 29 - 2ab$$

$$[\because (a - b) = 7 \text{ and } a^2 + b^2 = 29]$$

$$\Rightarrow 49 - 29 = -2ab$$

$$\Rightarrow \frac{20}{2} = -ab$$

$$\Rightarrow ab = -10$$

Putting the value of $(a - b)$ and ab in the equation

$$\Rightarrow \frac{-(a-b)}{ab} = \frac{-7}{-10} = \frac{7}{10}$$

Therefore, the value of

$$\frac{1}{a} - \frac{1}{b} = \frac{7}{10}$$

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

Explanation:

Given: $p = 2x^4 - x^3y^3 + 7y^4$

$$q = x^4 + 3x^3y^3 - 5y^4$$

$$r = 3x^4 - 4x^3y^3 + 2y^4$$

$$p + q - r$$

$$\Rightarrow (2x^4 - x^3y^3 + 7y^4) + (x^4 + 3x^3y^3 - 5y^4)$$

$$- (3x^4 - 4x^3y^3 + 2y^4)$$

$$\Rightarrow (2x^4 + x^4 - 3x^4) + (-x^3y^3 + 3x^3y^3 + 4x^3y^3)$$

$$+ (7y^4 - 5y^4 - 2y^4)$$

$$\Rightarrow 0x^4 + 6x^3y^3 + 0y^4$$

$$\Rightarrow 6x^3y^3$$

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

Explanation:

Given: $\frac{7-x}{5x+1} = 3$

$$\Rightarrow 7 - x = 3(5x + 1)$$

$$\Rightarrow 7 - x = 15x + 3$$

$$\Rightarrow -x - 15x = 3 - 7$$

$$\Rightarrow -16x = -4$$

$$\Rightarrow x = \frac{-4}{-16} = \frac{1}{4}$$

Putting the value of $x = \frac{1}{4}$ in $\frac{x+1}{x-1}$

$$\Rightarrow \frac{\frac{1}{4} + 1}{\frac{1}{4} - 1}$$

$$\Rightarrow \frac{\frac{1+4}{4}}{\frac{1-4}{4}} = \frac{1+4}{1-4} = \frac{5}{-3}$$

So, the value of $\frac{x+1}{x-1}$ is $-\frac{5}{3}$.

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

Explanation:

$$\text{Mean} = \frac{\text{Total sum of all observations}}{\text{Number of observations}}$$

Here, total sum of all observations

$$= x + x + 3 + x + 6$$

$$+ x + 9 + x + 12$$

$$= 5x + 30$$

$$= 5(x + 6)$$

Number of observations = 5

$$\Rightarrow \text{Mean} = \frac{5(x+6)}{5}$$

$$\Rightarrow 15 = \frac{5(x+6)}{5}$$

$$\Rightarrow 15 = x + 6$$

$$\Rightarrow x = 9$$

Now, mean of first three observation is:

$$\text{Mean} = \frac{x+x+3+x+6}{3}$$

$$= \frac{9+9+3+9+6}{3}$$

$$= \frac{36}{3} \quad [\because x = 9]$$

$$\text{Mean} = 12$$

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

Explanation:

Probability

$$= \frac{\text{Favourable outcomes}}{\text{Total number of outcomes}}$$

Here, total number of outcomes

$$= 52$$

Number of king cards in a deck

$$= 4$$

Therefore, favourable outcomes

$$= 52 - 4$$

$$= 48$$

So, probability of a card of not being a king

$$= \frac{48}{52} = \frac{12}{13}$$

Therefore, probability is $\frac{12}{13}$.

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

Explanation:

Given: Diameter = 105 cm

$$\Rightarrow \text{Radius} = \frac{\text{Diameter}}{2}$$

$$= \frac{105}{2}$$

$$= 52.5 \text{ cm}$$

Total distance to be covered

$$= 330 \text{ m}$$

Converting into cm

$$\text{Distance} = (330 \times 100) \text{ cm}$$

$$= 33000 \text{ cm}$$

Now, circumference of a circle

$$= 2 \times \pi \times \text{Radius}$$

$$= 2 \times \frac{22}{7} \times 52.5$$

$$= 330 \text{ cm}$$

$$\text{Distance} = \text{Circumference} \times$$

Number of times

wheel rotate

$$\Rightarrow 33000 = 330 \times \text{Number of times wheel rotate}$$

$$\Rightarrow \text{Number of times wheel rotate}$$

$$= \frac{33000}{330}$$

$$= 100 \text{ times.}$$

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

Explanation:

For first cylinder

$$\text{Radius} = 7 \text{ cm}$$

$$\text{Height} = 12 \text{ cm}$$

$$\text{Volume} = \pi r^2 h$$

where r = radius and h = height

let V_1 be the volume of 1st cylinder

$$\Rightarrow V_1 = \pi r^2 h$$

$$\Rightarrow V_1 = \frac{22}{7} \times (7)^2 \times 12$$

$$= 1848 \text{ cm}^3$$

For second cylinder [By interchanging radius and height]

$$\text{Radius} = 12 \text{ cm}$$

$$\text{Height} = 7 \text{ cm}$$

Let V_2 be the volume of 2nd cylinder

$$\Rightarrow V_2 = \pi r^2 h$$

$$\Rightarrow V_2 = \frac{22}{7} \times (12)^2 \times 7$$

$$= 3168 \text{ cm}^3$$

As per the question,

Volume of first cylinder : Volume of second cylinder

$$\Rightarrow V_1 : V_2$$

$$\Rightarrow 1848 : 3168 = 7 : 12$$

So, the ratio of the volumes is 7 : 12

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

Explanation:

$$\text{Area of a square} = a^2$$

[where a is the length of a side of square]

$$\text{Perimeter of a square} = 4a$$

$$\text{Area of a circle} = \pi r^2$$

[where r is the radius]

$$\text{Perimeter of a circle} = 2\pi r$$

As per the question,

$$\text{Area of square A} = \text{Area of circle B}$$

$$\Rightarrow a^2 = \pi r^2$$

$$\Rightarrow a = \sqrt{\pi r}$$

To find : $\frac{\text{Perimeter of A}}{\text{Perimeter of B}}$

$$\Rightarrow \frac{4a}{2\pi r}$$

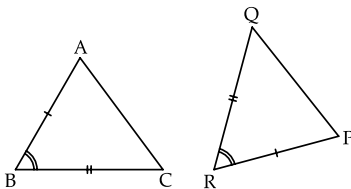
$$\Rightarrow \frac{4 \times \sqrt{\pi r}}{2\pi r} \quad [\because a = \sqrt{\pi r}]$$

$$\Rightarrow \frac{2}{\sqrt{\pi}}$$

Therefore, the ratio of perimeter is 2 : $\sqrt{\pi}$

46. Option (3) is correct.

Explanation: As per the question, $\triangle ABC \cong \triangle PRQ$
Where $AB = PR$ and $BC = QR$
According to SAS (Side Angle Side) rule, if two sides and the included angle of a triangle are equal to the two sides and the included angle of another triangle, then the triangles are said to be congruent.
So, the diagram as per the question should be:



Here, the angle between the two sides that are same are $\angle B$ and $\angle R$.
Therefore, we have to show $\angle B = \angle R$ to make SAS rule to be applicable in this question.

47. Option (3) is correct.

Explanation: Both the statements are true

- S1 is true because in order to complete a triangle, one must know its three sides.
- S2 is also true because a unique quadrilateral cannot be constructed if only its four sides are known.

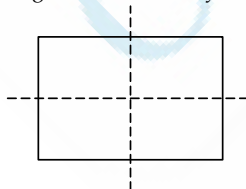
The angles also needs to be known to construct it.

Therefore, both statements are correct.

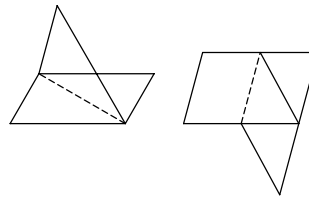
48. Option (1) is correct.

Explanation: Definition of Line of symmetry: It refers to the imaginary line that divides an object or a shape into equal halves.

Here, Assertion (A) is true because a rectangle has 2 lines of symmetry



Here, Reason (R) is not true because every parallelogram does not have lines of symmetry. For example, an irregular parallelogram has zero lines of symmetry.



So, Assertion (A) is correct but Reason (R) is incorrect.

49. Option (4) is correct.

Explanation:

Given: $n = F + V$
where F = number of faces of a polyhedron
 V = number of vertices of a polyhedron

Number of edges = 30

As per Euler's formula,

$$F + V = E + 2$$

$$\Rightarrow n = 30 + 2$$

$$[\because n = F + V]$$

$$\Rightarrow n = 32$$

To find:

$$2n + 1 = (2 \times 32) + 1$$

$$= 64 + 1$$

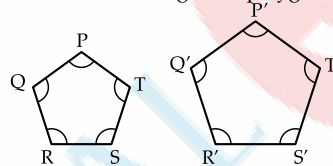
$$= 65$$

Therefore, value of $(2n + 1)$ is 65.

50. Option (3) is correct.

Explanation: Both the statements are true.

As per the congruency rule, all the angles and sides of a polygon are equal to the corresponding angles and sides of its congruent polygon.



As shown in the diagram, the above two polygons that is polygon PQRS and polygon P'Q'R'S' are congruent which means their corresponding angles and sides are equal.

Therefore, both S1 and S2 are correct.

51. Option (3) is correct.

Explanation:

- Manipulatives refers to the objects that provides hands-on experience to students so that learn the concepts in a better understandable way.
- Manipulative helps students in understanding a confusing concept by providing them with objects that they can use to test and apply their reasoning to.
- Manipulative helps students in understanding difficult concepts by connecting mathematical concepts with physical objects.
- Manipulative helps students by making mathematics interesting and also builds confidence among them.

Therefore, if a middle grade children sometimes do not regard rectangles

and squares as parallelograms, then the teacher should manipulates.

52. Option (1) is correct.

Explanation: Activity based learning refers to the process where students learn through hands-on experience.

- Mathematics laboratories refers to the place where children can learn and explore and experiments different concepts of mathematics.
- It is a way to learn the concepts of mathematics through a practical way where the concepts can be understood by experimentation and exploration.
- It develops interest among the students to understand the facts and concepts related to mathematics.
- Therefore, we can consider mathematics laboratories to be an important teaching and learning process.

53. Option (3) is correct.

Explanation: Van Heile's theory describes the way using which the students can learn and pass geometry at various levels.

The levels of Val Hieles's theory are:

- Level 0: Recognition: It refers to the recognition of figures by just looking at them. Students can recognise shapes and figures through their appearance.
- Level 1: Analysis: Students will learn to analyse the different components of different shapes and figures. They can identify the properties of different figures which means they can identify the shape and can also explain their properties.
- Level 2: Relationship/Informal Deduction: Students will be able to understand the connections between different properties of a shape or figure. For example, if they know that the opposite sides of a parallelogram are parallel, then they can develop the understanding that square and rectangle are also parallelogram because their opposite sides are also parallel.
- Level 3: Deduction: Students will gain much more knowledge of concepts of geometry. They will be able to prove statements based on their knowledge of properties of different figures.
- Level 4: Reasoning: Students will be able to differentiate or compare geometrical results. They will be able to use properties to solve problems of geometry.

54. Option (2) is correct.

Explanation: Ravi has used the 'Transposition' method to solve the algebraic equation.

- In transposition, students tries to equate both 'left side' and 'right side' of the equation.

- The aim of this method is to bring the same terms from both the side together and isolating the variable.

For example, in this question, we bring 26 and 14 and 2 together and isolated x .

$$\Rightarrow 2x = 26 - 14$$

$$\Rightarrow x = \frac{26 - 14}{2}$$

After that, we can find the value of variable.

Therefore, 'Transposition' is the answer.

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

Explanation:

- Mean is the sum of all values divided by the number of values or terms.
- It considers each and every value in the data set.
- It is a measure of central tendency. It is applicable on both large and small sets of data.
- The problem with mean is that it is sensitive to outliers or extreme values.

Therefore, the misconception about mean is that it is used everywhere regardless of the data's context.

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

Explanation:

- Questioning in a classroom help children in exploring their ideas, beliefs and knowledge.
- It helps students in gaining deep knowledge about a particular concept and also develop analytical skills.
- It helps children in expressing their views and make them feel confident about their opinions.
- Questioning helps in improving skills of students.

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

Explanation: Multiplicative inverse refers to another number which when multiplied by the original number will give '1' as the answer

Here, $\frac{a}{b} \neq 0$

If we multiply $\frac{a}{b}$ by $\frac{b}{a}$, then 1 will be answer.

$$\Rightarrow \frac{a}{b} \times \frac{b}{a} = 1$$

Therefore, $\frac{b}{a}$ is the multiplicative

inverse of $\frac{a}{b}$.

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

Explanation:

- Activity based learning refers to the process where students learn through hands-on experience.
- Here, the teacher wanted to provide practical knowledge

to its students so that they can understand the relationship between the perimeter and area of the rectangle in a much understandable and better way.

It is a way of developing deeper knowledge about the relationship in a fun way or practical way.

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

Explanation:

- Mathematics play an important role in our lives. We use the concepts of mathematics in our daily lives. It is a combination of geometry, quantitative calculations, reasoning, etc.
- The statement in the question has been given by David wheeler.
- Mathematics can be both learnt and enjoyed at the same time. Schools, now-a-days, try to make students understand and gain knowledge of the concepts of mathematics in a fun and practical way.

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

Explanation: At middle school level, the role of a teacher is to:

- Teach mathematics in a creative way that develops the interest of student in learning mathematics.
- The teacher must have knowledge of mathematics and content-specific pedagogy.
- The teacher should try to develop deep understanding of concepts among the students.
- Teacher should indulge students in activity-based learning in order to develop their critical thinking and analytical skills.

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

Explanation:

- **Malleable material:** These can be easily transformed into a thin sheet. For example, the sheet used for wrapping food items.
- **Conductivity:** It is a characteristic of material as per which heat or electric charges can pass through them.
- **Ductility:** It is the ability of a material to be drawn into a thin wire. Example: Gold.
- **Thermal expansion:** When the volume of material expands due to a increase in temperature, then it is called thermal expansion. This functioning is also used in thermometers.
- **Melting point:** It refers to the point where the state of materials change from solid to liquid.

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

Explanation: Vitamins are biomolecules which are very important for our body. They prevent us from various diseases.

Vitamins are of two types.

- Water soluble vitamins:** Examples are vitamin C and all vitamin B.
- Fat soluble vitamins:** Examples are vitamin A, D, E and K.

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

Explanation:

- Removal of surplus water from plant's body is known as 'transpiration'. It is done to prevent plant decay.
- When plants are exposed to direct sunlight, then transpiration help in the cooling of plants.
- Transpiration act as a medium that helps in the absorption and distribution of water and minerals in plants.
- Also helps in exchange of gases by absorbing CO_2 and releasing oxygen during photosynthesis.

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

Explanation: The formula of pressure is:

$$\text{Pressure} = \frac{\text{Force (F)}}{\text{Area (A)}}$$

- As shown in the formula above, pressure is inversely proportional to the area, so first statement is correct.
- It is also seen that pressure is directly proportional to force, so second statement is incorrect.
- The unit of force is Newton and the unit of pressure is N/m^2 , so third statement is also incorrect.

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

Explanation:

- The nature of the chemical that cause sting was 'Acidic'. Acids are sour in taste and their pH is below 7.
- The nature of the juice in the leaf that the instructor used is 'Basic'. Bases are bitter in taste and their touch is soupy. Their pH range falls above 7.
- So, in this case, instructor used bases in order to neutralise the impact of acid.
- So, in this case, instructor used bases in order to neutralise the impact of acid.

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

Explanation:

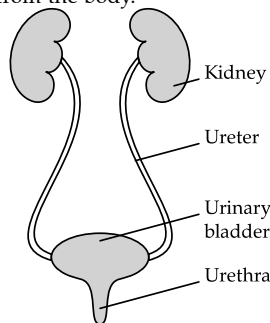
- Different animals have different respiratory organs.
- For whales and dolphins: They both are mammals and use 'lungs' as their respiratory organ. They don't have gills. They use blowhole (set of nostrils on top of their heads) to breathe.
- For sharks: They use 'gills' as their respiratory organ, like many other fishes.

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

Explanation:

- Human excretory system refers to the organ system that is used

to remove the waste products out from the body.



- The above diagram shows the process of excretion. The path followed by waste to be removed from body is:
Kidney → Ureters → Urinary Bladder → Urethra

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

Explanation:

- There are two modes of reproduction in plants and animals—Animals reproduction and Sexual reproduction.
- Cutting:** It is a type of asexual reproduction in plants. It is also called vegetative reproduction where vegetative parts of plant like stem, root, etc. are used to form new plants, garlic, rose, etc. are the examples of cutting.
- Spores formation:** It is also a type of asexual reproduction spores are stored in sacs which is called sporangia. Ferns are the example of spore formation.
- Fragmentation:** It is a type of asexual reproduction where the parental body breaks into two or more fragments which in turn grows into a new individual. Spirogyra is an example of fragmentation.
- Budding:** It is a type of asexual reproduction where one or more buds are produced that were attached to parent cell but later on, they separate and grow into a new individual for example—yeast.

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

Explanation:

- The number of atoms remain same after a chemical reaction. They got rearranged in order to form different substances, but the number and type of atoms remain unchanged.
- Total mass also remains same before and after a chemical reaction. As per the law of conservation of mass, matter cannot be destroyed or created.

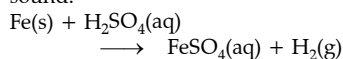
70. **Option (3) is correct.**

Explanation:

Hydrogen gas is released with a popping sound when a metal reacts with acid. It also forms metal salt

along with the release of hydrogen gas.

For example—Iron reacts with sulfuric acid to form iron sulfate and release hydrogen gas with popping sound.



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

Explanation:

- Low ignition temperature is one of the quality of a good fuel that is the lowest temperature at which it catches fire.
- High calorific value is also one of the quality of a good fuel. It is the energy released when specific amount is heated.
- Easy availability is also a quality of good fuel.
- Caution:** As per the answer key, option D is correct. But as per NCERT, option A is correct.

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

Explanation:

- The purpose is to remove the organic impurities.
- Potassium permanganate oxidizes the impurities from water by converting them into solid particles.
- It is also used to treat bacterial infections.

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

Explanation:

- Electric circuit refers to a closed-loop network of switches, resistors, power sources and electric wires.
- The flow of current has been controlled by a switch in a circuit.
- Here, Assertion (A) is false as switch is not a source of current in a circuit. The source is a battery or an electric cell.
- Reasoning (R) is true as the gap between the terminals break the circuit and prevent flow of current.

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

Explanation: Let the velocity and mass of lighter object be V_1 and m_1
Let the velocity and mass of heavier object be V_2 and m_2 .
As per the question, their kinetic energy is same

So,

$$\text{K.E. of lighter object} = \text{K.E. of heavier object}$$

$$\Rightarrow \frac{1}{2}m_1V_1^2 = \frac{1}{2}m_2V_2^2$$

$$\Rightarrow \frac{m_1}{m_2} = \left(\frac{V_2}{V_1}\right)^2$$

As the mass of heavier object will be more than lighter one

$$\Rightarrow \frac{m_2}{m_1} > 1$$

$$\Rightarrow \frac{m_1}{m_2} < 1$$

$$\Rightarrow \frac{V_2^2}{V_1^2} < 1$$

$$\Rightarrow V_2^2 < V_1^2$$

This shows that the velocity of lighter objects will be more than the heavier object.

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

Explanation:

- An earthquake is a natural disaster that leads to shaking of the surface of earth.
- The point inside the earth where the earthquake originates is known as the focus of the earthquake. It is also called hypocenter. The point directly above it on the surface of earth is called Epicenter.
- Caution:** As per the answer key, option (2) is correct but the right answer is option (1).

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

Explanation:

- There is no fixed size in a magnet. A magnet refers to a material that has the ability to attract iron and to produce a magnetic field outside it.
- The method that can be used to demagnetize are:
 - Dropping magnet on floor
 - Keeping high temperature in magnet
 - Hammering the magnet
 - Using alternating current while rotating magnet

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

Explanation:

- Friction is a force that resists the motion between the objects.
- The different types of friction are:
 - **Rolling friction:** It happens when an object rolls along a surface. It is less than sliding friction or static friction.
 - **Sliding friction:** It happens when an object slides along a surface. It is less than static friction.
 - **Static friction:** It is the friction that does not let an object move at rest.

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

Explanation: Let us assume that the refractive index of convex lens is n_1 and refractive index of liquid is n_2 .
As per the question,

$$n_2 > n_1$$

Checking whether the focal length is positive or negative by using Lens Maker's formula

$$\Rightarrow \frac{1}{f} = (n-1) \left(\frac{1}{R_1} - \frac{1}{R_2} \right)$$

$$\text{Here, } n = \text{refractive index} = \frac{n_1}{n_2}$$

$$\text{As } n_2 > n_1 \Rightarrow n < 1$$

Which means that the focal length of the lens is negative. Therefore, it shows that the nature of lens will change to **concave lens**, that is, **divergent lens** as the focal length of concave lens is negative and focal length of convex lens is positive.

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

Explanation:

- The vibration that travels through a medium (solid, liquid or gas) as a mechanical wave is known as sound.
- The speed of sound is highest in solids, relatively slow in liquids and slowest in gases.
- **Intensity:** It tells the rate at which energy is transferred by waves.
- **Timbre:** It is a characteristic of sound that differentiates between the sounds of same pitch and same loudness.
- **Shrillness:** It is also known as 'pitch'. It is also a characteristic of sound that is dependent on frequency.
- **Amplitude:** It refers to the maximum displacement of a wave from its mean position.

So, as per the definitions, option (2) is correct.

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

Explanation:

- Refrigerator pipes are painted black in colour as helps in cooling and reflects the heat in the surroundings.
- Good absorbers of heat are also good radiators and black colour is a good example of it.
- Heat is well radiated by black components and black is good heat absorber.

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

Explanation:

- Inquiry approach is a teaching method that treat students as a discoverer and allow them to discover things by themselves.
- In this method, problem has been given to students and it is expected that they find solutions by themselves through observation and experiments.
- In this case, the sequences using inquiry approach should be:
 1. **Observe the situation:** Students can do this by placing a container with hot water inside the container containing cold water.
 2. **Conclusion of experiment:** Students can do this by describing the relationship between temperature and heat.
 3. **Application of knowledge:** Students can do this by inferring the direction of heat in different objects.

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

Explanation:

- Science is not something that can be learnt in a particular way. It involves experimenting, testing hypothesis, finding evidences, etc. It requires knowledge and creativity among the students.
- For nurturing creativity in science, a teacher can do the following things:
 - Motivate students to frame answers in various ways
 - Helps in developing divergent thinking abilities.
 - Guide students in using multidisciplinary approach.
 - Provide rich variety of learning experiences.
 - Discussion in classrooms, etc.

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

Explanation:

- Activity based learning refers to the process where students learn through hands-on experience.
- It helps students in gaining knowledge through observation and experimentation.
- It also encourages students to participate in classroom by sharing their ideas and discussing with other students.
- It also improves the knowledge of students as they are learning by seeing, listening and experimenting by themselves.

Therefore, option (2) is the right option.

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

Explanation:

Problem solving refers to finding ways or methods to solve a particular problem or task.

Problem solving strategy has 3 stages:

1. Identify the problem—Initial state
2. Steps taken—Operation
3. Solution—Goal/aim state

Therefore, in this question, the first step will be to identify the wasteful practices.

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

Explanation:

- Investigative activities helps students in understanding the nature of scientific inquiry. It helps students in understanding the relationship between different processes and facts.
- It also helps in enhancing the analytical skills of students
- Controlling variables means all the conditions are kept same except for the independent variable. Here, in statement A, we are doubling the amount of water. Here, if want to control, then the controlling variables could be the temperature, time, light, etc.

So, we are developing controlling variable skills here by controlling the amount of water.

- In statement B, we are developing observation skills. Observation means use of various senses in order to gather information.

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

Explanation: Students learn by observing, experimenting, questioning in a classroom. They use different concepts of science and mathematics in their daily life.

In a classroom, a teacher should:

- Try to connect the topic of teaching with the previous knowledge of science students.
- Try to connect the different objects in the surroundings with the concepts of science, so that students can gain practical knowledge as well.
- Use different examples from our daily life to explain a particular concept of science.
- So, Assertion is false as a teacher should not teach each science concept assuming students know nothing, instead, teacher should try to connect that concept with daily life examples.
- Reasoning is also false as science is an abstract subject with proof that has clear interconnectedness with different scientific concepts.

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

Explanation:

- Investigatory projects helps students by exploring science and their ideas in their environment (surroundings).
- It starts with the framing of questions according to the student's observation. These questions are then used by students for their projects.
- The next step is to do research. They have to identify the resources that they are going to use, the process that they are going to follow etc.
- The next step is to frame 'hypotheses' which means finding possible answers based on their research. They also decide on the experiments that they are going to do.
- The next step is to observe and analyse the findings of the experiment. Based on it, the hypothesis can be right or wrong. If they are wrong, then they have to again reframe the hypothesis and have to test it.
- So, here, the project is helping students to **reflect critically**. Critical reflection refers to the activity where students challenge the correctness and validity of their assumptions within the present context.

88. Option (3) is correct.

Explanation:

- Here, the objective of teacher is to contextualise the topic.
- Contextual learning refers to the method of teaching where teachers provide some information to the students in such a way that students were able to derive meaning out of it based on their experiences.
- This helps students by enhancing their knowledge and learning by connecting the information with the real world. It also provides authentication.
- By providing real world examples will help making learning more realistic and relevant.
- Therefore, by giving the examples of cyclones, teacher is using contextual learning.

89. Option (3) is correct.

Explanation: We use science in our daily lives. Scientific temper is a method with which we look at the processes of assumptions, experimentation, explanation etc. in science.

The characteristics of scientific temper use:

- **Bias free:** There is no place for bias.
- **Scepticism:** It means that you don't accept other's assertions unless they are logical and have some proof.
- **Universal:** These are universal.
- **Objectivity:** You observe the way things are and do not try to manipulate it. Therefore, observations have to be objective.
- **Rational:** The decisions taken should be rational.
- **Open-mindedness:** It is very important. Willingness has to be there to change the conclusions based on humanity and valid proof.
- **Preserverance:** It means to have positive approach to the failure.

Therefore, based on these, option (3) is correct.

90. Option (1) is correct.

Explanation:

- Science refers to the study of nature and its behaviour.
- Science is based on evidences.
- Science is a process and also a product.
- Science is a mix of both imagination and logic.
- Science is not all about experimentation and is a social activity.

Language: English

91. Option (2) is correct.

Explanation: According to the passage, people emigrate mostly for economic betterment, indicating that the primary reason for migration is seeking better job opportunities and

incomes. While cases of flight abroad caused by political persecution are mentioned separately. No where social injustice is causing immigration have mentioned therefore correct option will be option 2

92. Option (4) is correct.

Explanation: Referring to the lines from the passage, "Pundits predict that with the advance towards a globalized economy, this sort of migration will become unnecessary." Hence, it is apparent that with globalization, poor people will stop going to rich countries for economic betterment as they will get good opportunities to earn and a better life in their own countries.

93. Option (4) is correct.

Explanation: Referring to the lines from the passage, "The rewards of globalization have spread unevenly. Moreover, where they have spread, they have whetted the appetite for a better life so much that salaries from jobs in Bengaluru back offices or call centres of international companies may not be able to meet." Hence, it is apparent that the salaries earned are insufficient for the lifestyle people want, and they are demanding higher wages.

94. Option (4) is correct.

Explanation: Referring to the lines from the passage, "Illegal immigration cannot be stopped. It can only be checked."

95. Option (1) is correct.

Explanation: In the passage, there is a mention of workers in Bengaluru demanding higher salaries. However, there is no mention or indication in the passage that suggests that western countries will be left without a trained workforce in the near future. Therefore, statement A is correct, but statement B is not supported by the given information. Therefore option 1 is a correct option

96. Option (3) is correct.

Explanation: "Yet" is a conjunction. It means "but" or "nevertheless". It shows a contrast.

The following lines indicate, "Yet, of this planet's six billion people, more than one billion live on less than seventy-five rupees a day."

A comparison and contrast are drawn, so "Yet" is a conjunction.

97. Option (2) is correct.

Explanation: In this sentence, "sending" is describing the noun "country," indicating that it refers to a country that is involved in sending people or immigrants. So it's depicting the quality of a country from where people migrate

An adjective describes a noun or noun phrase. It changes the information given by the noun.

Hence, the sending Country here is an adjective.

98. Option (2) is correct.

Explanation: "Whetted" means to excite or stimulate (someone's desire, interest, or appetite).

Referring to the lines from the passage, "And where they have spread, they have whetted the appetite for a better life so much that salaries from jobs in Bengaluru back offices or call centres of international companies may not be able to meet."

Hence, whetted here means an increase in the demand for salaries.

99. Option (1) is correct.

Explanation: Referring to the lines from the passage, "Here, India could learn a lesson from Sri Lanka which plays an active role in facilitating economic emigration.

The word "facilitating" means helpful, as facilitate means to make an action or process more accessible.

100. Option (3) is correct.

Explanation: The passage mentioned above is from Lord Byron's poem, "The Eve Of Waterloo."

"The Eve of Waterloo" portrays the events that took place the night before the Battle of Quatre Bras, fought near Brussels, the capital of Belgium, which was a precursor to the Battle of Waterloo, fought two days later.

The lines, "Arm! Arm! It is _it is _the cannon's opening roar!"

The poet has compared the sound of the cannon heard in the distance with that of the wind, the rattle of the car, echo of the clouds.

101. Option (1) is correct.

Explanation: The phrase "On with the dance! Let joy be unconfined" indicates that the young men were dancing.

102. Option (2) is correct.

Explanation: The passage mentioned above is from Lord Byron's poem, "The Eve of Waterloo."

The "Eve of Waterloo" portrays the events that took place the night before the Battle of Quatre Bras, fought near Brussels, the capital of Belgium, Lady Charlotte (The Duchess of Richmond) invited officers of the English and Prussian armies three nights before the Battle of Waterloo to a ball.

Hence, all the young men were dancing and rejoicing.

During this ball, a messenger arrived to inform about the surprise attack by the Napoleon-led French army. The Duke got them to their regiments without much noise to prevent panic among the officers and left for the field himself.

So, the two contrasting themes in the poem are "Dance" as all the young

men were enjoying the party and war which approached while they were partying.

103. Option (2) is correct.

Explanation: The poet highlights the power of the sound by using three comparative adjectives 'nearer', 'clearer', and 'deadlier'. When the heavy sound resonates one more time, it feels like the cloud roars and its echo repeats.

All the men recognized the sound as the enemy cannon's opening roar and were called upon to arm themselves.

104. Option (1) is correct.

Explanation: Onomatopoeia literary technique is when the sound of a word (phonetically) imitates, resembles or suggests the sound that it describes. The sound rattles in the line "the car rattling over the stony street" because the car runs on a street made of stones.

105. Option (2) is correct.

Explanation: In this line, the words "nearer," "clearer," and "deadlier" are used to describe the sound. This use of descriptive words to create a vivid image or comparison without using "like" or "as" indicates a metaphor. The sound of the cannon is being compared to something that is approaching closer, becoming clearer, and becoming deadlier.

106. Option (1) is correct.

Explanation: Connotation refers to a word or thing symbolically rather than being explicitly named or described, which includes the ideas and feelings that need not be a part of the word's meaning. Connotation is based on implication, suggestion, or shared emotion with a comment. Like a lady symbolizes a person who is refined, polite, and well-spoken.

107. Option (4) is correct.

Explanation: The direct teaching method implies presenting a video or film to students even though the teacher is not actively instructing students but has selected it for them. The primary objective of the direct Method was to teach L2 learners how to use language for communication purposes. The Direct Method aims at establishing the direct bond between thought and expressions and between experience and language so that the learner experiences the new language as they have experienced his mother tongue.

108. Option (1) is correct.

Explanation: Based on the given information, it is stated that Rohit Irfan has opted to study Spanish, indicating that he is actively learning the language. On the other hand, it is mentioned that he has been able to use Kannada, the language of the place (Bangalore), effectively for

different purposes. This suggests that he is acquiring Kannada through his immersion and interaction in the local environment.

109. Option (1) is correct.

Explanation: In the given scenario, the teacher has provided a real-life situation where the students need to interact and use language skills to order food based on specific conditions. This activity requires the students to engage in communication, decision-making, and problem-solving, which are key elements of a task in language teaching.

110. Option (1) is correct.

Explanation: Dialects are social or regional variations of a language distinguished by grammar, pronunciation, and vocabulary.

When people settle in different geographical locations, they tend to create their cultural codes in language, adapt them to their needs, and naturally mimic each other's speech. Having or not having a script is not the criteria for considering language as a dialect.

Every sign language has a comprehensive vocabulary and its own grammatical rules. These grammatical rules are different from that of spoken languages.

All languages spoken by human beings follow rules of grammar. No matter the language, whether written or vocal.

Also, a country's spoken tongue does not dictate what signed language is used by the Deaf in that particular Country.

111. Option (4) is correct.

Explanation: Post-reading activities help students to locate and record relevant information.

Post-reading strategies help readers summarize, reflect, and question what they have just read.

So, using the jumbled words to create a subtext after reading a text is a post-reading activity.

112. Option (3) is correct.

Explanation: Syntactic cues involve word order, rules and patterns of language (grammar), and punctuation. For example, a word's position in a sentence will cue the listener or reader whether the word is a noun or a verb.

For example, semantic cues for the word "knife" may be that it is an eating utensil used to cut food, made of metal and sharp on one side, and so on.

113. Option (2) is correct.

Explanation: Composition dictation is a learning strategy where the teacher comes up with a text and tests the students to listen and rewrite

what they have heard with their own words.

The rules of the composition dictation:

1. Listen to the dictated sentence with accuracy.
2. Chunk the sentence into smaller parts in the head.
3. Retain the complete sentence in short-term memory until writing it.
4. Write it down quickly with correct spelling.
5. Use proper capitalization and punctuation.
6. Proofread the sentence again.

114. Option (2) is correct.

Explanation: Poetry is a form of expression which enhance our feelings and thoughts and encourages us to connect and find meaning in our experiences.

One can write poems to sound beautiful, tell a story, or share a message. They engross us with their beauty, rhyming and presentation.

They create a sense of delight and enjoyment.

115. Option (2) is correct.

Explanation: Portfolio assessment involves collecting and recording a variety of evidence or artifacts that demonstrate a learner's progress and achievements over time. These artifacts can include samples of student work, projects, reflections, assessments, and other relevant materials. The portfolio serves as a comprehensive record of the learner's growth and learning throughout a specific period.

116. Option (1) is correct.

Explanation: Basic Interpersonal Communication Skills (BICS) are linguistic skills required in everyday life for social interactions like the language we use in the playground, on the phone, or socially interacting with others.

117. Option (4) is correct.

Explanation: Comprehensible input is language input understood by listeners, even though they may need help understanding all the words and structures within it.

It helps students of any proficiency level: from beginner to advanced students. However, it must be presented in the form of meaningful language that students can understand with the help of embedded context, even though they do not fully understand each word's meaning.

118. Option (2) is correct.

Explanation: Various types of Teaching-Learning Materials:

Visuals Aids:

Blackboard, Posters, Flashcards, Presentations, Printed textbooks, Graphs and Infographics.

Audio Aids:

Radio, Tape-recorder and CDs.

All the Audio-visual aids: such as videos, video recordings, Films and Documentaries, and Virtual Classrooms Language Laboratory. Thus, computer programming cannot be considered a material for language teaching-learning—instead it provides a set computer of instructions to facilitate specific actions.

119. Option (1) is correct.

Explanation: Multilingual education is an integral part of the Indian learning system, and the three-language formula says that an individual completing higher education should be at least trilingual.

Multilingualism in school education advocates for understanding the Country's multilingual characteristics and is used as a resource in teaching languages and content subjects. Additionally, it helps in recognizing the diverse aspects of the Country. Multilingualism promotes analytical, social, and academic skills more than their monolingual peers, apart from superior reading and writing skills.

120. Option (2) is correct.

Explanation: Sign language uses body language and facial expressions in place of sound to convey meaning, combining hand gestures, hand orientation and movements, arms or body, and expressions of the face to express a speaker's thoughts.

Language: Hindi

121. विकल्प (3) उचित है।

व्याख्या—यह सब होते हुए भी अर्थात् संविधान और परम्परा में स्त्री-पुरुष को समान माने जाने पर भी हमारा समाज पुरुष को श्रेष्ठ और नारी को हीन मानता है।

भारतीय संविधान

- स्त्री-पुरुष को समान समझा गया है।
- उन सभी प्रथाओं के त्याग की बात कही गयी है जिनसे नारी के आत्म-सम्मान पर आँच आती हो।
- पारिवारिक, सामाजिक और राष्ट्रीय संरचना नर-नारी दोनों के परस्पर सहयोग पर निर्भर होती है।

122. विकल्प (2) उचित है।

व्याख्या—उज्ज्वल का अर्थ स्वच्छ होता है। इसमें व्यंजन संधि है।

व्यंजन संधि—व्यंजन या स्वर के मेल से जो विकार (परिवर्तन) उत्पन्न होता है उसे व्यंजन संधि कहते हैं अर्थात् शब्दों या शब्दांशों के मिलने से नया शब्द बनता है। उदाहरण के लिए—

■ दिक् + अम्बर = दिगम्बर

■ जगत + ईश = जगदीश

इसलिए यहाँ उज्ज्वल का संधि-विच्छेद उत् + ज्वल होगा।

123. विकल्प (4) उचित है।

व्याख्या—वैदिककालीन समाज के सन्दर्भ में दो कथन सही हैं।

- समाज में नारी का स्थान बहुत ऊँचा था।
 - महिलाएँ युद्ध में भाग ले सकती थीं।
- अन्य महत्वपूर्ण बिन्दु (वैदिककालीन)**
- पर्दे की प्रथा न थी।
 - स्त्री शस्त्राथों में खुलकर भाग लेती थीं।
 - अनेक स्त्रियाँ ऋषि-पद पर प्रतिष्ठित थीं।
 - स्त्रियाँ धार्मिक और सामाजिक कार्यों में हाथ बँटाती थीं।
 - विवाह के मामले में उन्हें स्वतन्त्रता प्राप्त थी।

124. विकल्प (4) उचित है।

व्याख्या—'सर्वमान्य तथ्य' सामाजिक संरचना स्त्री-पुरुष की सहभागिता पर निर्भर करता है। हमारे संविधान में स्त्री-पुरुष दोनों को हर दृष्टि से समान समझा गया है, साथ ही उन सभी प्रथाओं के त्याग की बात कही गयी है जिनसे नारी के आत्म-सम्मान पर आँच आती हैं।

सर्वमान्य तथ्य

- पारिवारिक, सामाजिक और राष्ट्रीय संरचना नर-नारी के सहयोग पर निर्भर।
- पारिवारिक व्यवस्था का पूरा दायित्व नारी पर।
- मानव समाज की रचना में दोनों का सहयोग।

125. विकल्प (2) उचित है।

व्याख्या—अनुच्छेद के अनुसार वैदिक काल में यज्ञ में पति-पत्नी के साथ बैठने की प्रथा थी।

वैदिककालीन समाज की विशेषताएँ

- समाज में नारी का स्थान बहुत ऊँचा था।
- महिलाएँ युद्ध में भाग लेती थीं।
- पर्दे की प्रथा न थी।
- अनेक स्त्रियाँ ऋषि-पद पर प्रतिष्ठित थीं।
- स्त्रियाँ धार्मिक और सामाजिक कार्यों में हाथ बँटाती थीं।
- विवाह के मामले में उन्हें स्वतन्त्रता प्राप्त थी।

126. विकल्प (3) उचित है।

व्याख्या—प्रसंगानुसार कालांतर का अर्थ है अन्तराल या फिर दूसरे शब्दों में कह सकते हैं कि उल्लिखित समय के बाद का समय।

127. विकल्प (4) उचित है।

व्याख्या—समास रचना की दृष्टि से सती-प्रथा समास पर रोष से भिन्न है क्योंकि यह एक शब्द है जबकि अन्य शब्द भिन्न-भिन्न अर्थ प्रकट करते हैं।

समास—समास शब्द-रचना की ऐसी प्रक्रिया है जिसमें अर्थ की दृष्टि से परस्पर भिन्न तथा स्वतंत्र अर्थ रखने वाले दो या दो से अधिक शब्द मिलकर किसी अन्य स्वतंत्र शब्द की रचना करते हैं। उदाहरण के लिए—

■ स्त्री-पुरुष

■ नर-नारी

■ काम-काज

तीनों में ही द्वन्द्व समास है।

128. विकल्प (3) उचित है।

व्याख्या—'वैदिक काल में परिवार में स्त्री को बहुत सम्मान प्राप्त था।' इसके समर्थन में 'जहाँ नारी की पूजा होती है वहाँ देवता निवास करते हैं।' यह तर्क अनुपयुक्त है। अन्य तर्क उचित हैं।

वैदिककालीन समाज की विशेषताएँ

- समाज में नारी का स्थान बहुत ऊँचा था।
 - महिलाएँ युद्ध में भाग लेती थीं।
 - अनेक स्त्रियाँ ऋषि-पद पर प्रतिष्ठित थीं।
 - स्त्रियाँ धार्मिक और सामाजिक कार्यों में हाथ बँटाती थीं।
 - विवाह के मामले में उन्हें स्वतन्त्रता प्राप्त थी।
- जबकि मनुस्मृति में लिखा है कि जहाँ नारी की पूजा होती है वहाँ देवता निवास करते हैं।

129. विकल्प (2) उचित है।

व्याख्या—राष्ट्रीय अस्मिता की पहचान के सन्दर्भ में दो कथन उपयुक्त हैं—

- राष्ट्र का अपना स्वरूप प्रतिष्ठित होता है।
- देश के प्रति निष्ठा और समर्पण का भाव उत्पन्न होता है।

अस्मिता का अर्थ—पहचान

राष्ट्रीय अस्मिता का अर्थ—उन लक्षणों और विशेषताओं की पहचान, जिनसे राष्ट्र का अपना स्वरूप बनता है।

राष्ट्रीय अस्मिता के लक्षण

- एक स्वतंत्र, प्रभुत्व सम्पन्न राष्ट्र के रूप में प्रतिष्ठित होना।
- मन में राष्ट्र के प्रति अपनत्व, प्रेम, निष्ठा की भावना।
- धर्म, जाति, भाषा, क्षेत्र से परे होकर राष्ट्रीय विकास के लिए प्रयत्नशील होना।

130. विकल्प (4) उचित है।

व्याख्या—व्याकरणिक कोटि की दृष्टि से समूह से भिन्न शब्द विविधता है। विविधता का अर्थ विविध होने के भाव से है, इसलिए इसमें भाववाचक संज्ञा विद्यमान है। जबकि अन्य राष्ट्रीय, रेगिस्तानी, सांस्कृतिक तीनों विशेषण हैं।

भाववाचक संज्ञा

किसी भाव, गुण, दशा या अवस्था का बोध करवाने वाले संज्ञा शब्दों को भाववाचक संज्ञा कहते हैं।

131. विकल्प (1) उचित है।

व्याख्या—'इन विविधताओं के रहते हुए भी भारत एक भौगोलिक इकाई रहा है', इन विविधताओं में पर्वतों और नदियों को सम्मिलित नहीं किया गया है।

जलवायु की विविधता, आजीविका के साधनों की विविधता और रहन-सहन की विविधता। किन्तु इन विविधताओं के रहते हुए भी भारत एक भौगोलिक इकाई रहा है। यहाँ तक कि समय-समय पर अनेक राजनीतिक सत्ताओं में विभक्त रहने पर भी धार्मिक और सांस्कृतिक विचारों, संस्कारों और आस्थाओं ने इसे एक सूत्र में बाँधे रखा है।

132. विकल्प (3) उचित है।

व्याख्या—भारत को एक उपमहाद्वीप कहा जाता है क्योंकि यह भौगोलिक विविधताओं वाला विशाल देश है।

देश में भौगोलिक विविधता

- दुर्गम उच्च शिखर वाले पर्वतीय क्षेत्र
- पठारी भाग, मैदानी भाग, रेगिस्तानी भाग
- जलवायु की विविधता
- आजीविका के साधनों की विविधता
- रहन-सहन की विविधता

133. **विकल्प (1) उचित है।**
व्याख्या—‘भौगोलिक इकाई’ में दोनों शब्द क्रमशः विशेषण विशेष्य हैं।
विशेषण—संज्ञा अथवा सर्वनाम शब्दों की विशेषता (गुण, दोष, संख्या, परिणाम, आदि) बताने वाले शब्द ही विशेषण होते हैं; जैसे—लम्बा, गोरा, काला, इत्यादि।
विशेष्य—विशेषण शब्द जिसकी विशेषता बताए, उसे विशेष्य कहते हैं। उदाहरण के लिए—
 ■ राम सुन्दर है।
 इसमें सुन्दर विशेषण और राम विशेष्य है।
134. **विकल्प (1) उचित है।**
व्याख्या—‘हम समस्त भारतवासी एक हैं’, रचना की दृष्टि से यह एक सरल वाक्य है।
सरल वाक्य
 ■ ऐसा वाक्य जिसमें क्रिया एवं कर्ता होता है।
 ■ वाक्य में एक ही उद्देश्य, एक ही विधेय होता है।
 ■ इसे साधारण वाक्य भी कहते हैं।
135. **विकल्प (2) उचित है।**
व्याख्या—हमारे शास्त्रों और महाकाव्यों में भारत को एक भौगोलिक इकाई कहा गया है। कश्मीर से कन्याकुमारी और कच्छ से अरुणाचल तक भारत को भौगोलिक इकाई के रूप में वर्णित किया गया है। उत्तर के हिमालय, पूर्व, दक्षिण और पश्चिम के सागरों ने इसे एक भौगोलिक इकाई के रूप में सीमांकित किए रखा है।
भौगोलिक विविधता (भारत)
 ■ जलवायु की विविधता
 ■ आजीविका के साधनों की विविधता
 ■ रहन-सहन की विविधता
136. **विकल्प (2) उचित है।**
व्याख्या—एक बहुभाषिक कक्षा में शिक्षक को संसाधन सामग्री का निर्माण, चयन करते समय भाषिक विविधता पर सबसे अधिक ध्यान देना चाहिए।
बहुभाषावाद/बहुभाषिता—बहुभाषिता से तात्पर्य एक से अधिक भाषाओं के प्रयोग से है। यह विभिन्न स्तर पर हो सकती है। इसके अन्तर्गत वह व्यक्ति आते हैं जो बहुभाषिक हैं, जो एक से अधिक भाषाओं को सुनकर समझने, बोलने, पढ़ने या लिखने में किसी भी स्तर पर अपनी दक्षता रखते हैं।
लाभ
 ■ सामाजिक एवं आर्थिक विकास
 ■ बौद्धिक एवं भावात्मक विकास
 ■ व्यवहारगत विकास
 उच्च प्राथमिक स्तर पर हिंदी भाषा शिक्षण का महत्वपूर्ण उद्देश्य बच्चों को हिंदी भाषा के विविध स्वरूपों की जानकारी देना है।
 हिंदी भाषा शिक्षण का उद्देश्य विविध साहित्यिक विधाओं से बच्चों को परिचित करा के उन्हें अपने अनुभवों के आधार पर विभिन्न संदर्भों में भाषा प्रयोग में सफल बना।
 उच्च प्राथमिक स्तर पर भाषा सीखने में पाठ्य-पुस्तक के अतिरिक्त आयु अनुरूप साहित्य सर्वाधिक महत्वपूर्ण संसाधन सामग्री है। साहित्य कलात्मक कार्यों का एक समूह है जो कि यात्रा

- वृत्तान्त, एकांकी नाटक, कविता, नाटक और उपन्यास, आदि के रूप में होता है।
137. **विकल्प (2) उचित है।**
व्याख्या—बहुभाषिकता से निश्चित व्यवहारगत लाभ होते हैं। यह भारत की संस्कृति का एक अभिन्न अंग है क्योंकि भारत में अनेक भाषा बोलने वाले लोग निवास करते हैं।
बहुभाषिता
 ■ अधिक भाषाओं का प्रयोग
 ■ बहुभाषिता के विभिन्न स्तर
लाभ
 ■ सामाजिक एवं आर्थिक विकास
 ■ व्यवहारगत विकास
 ■ बौद्धिक एवं भावात्मक विकास
 इसमें सबसे निश्चित और महत्वपूर्ण विकास व्यवहारगत होता है।
 बहुभाषिकता के कई लाभदायक पहलु भी हैं इन पहलुओं में बौद्धिक विकास, व्यवहारगत, कल्पनाशीलता का विकास, सृजनात्मक चिंतन और संप्रेषणात्मक संवेदनशीलता के संदर्भ में देखा जा सकता है।
138. **विकल्प (3) उचित है।**
व्याख्या—सोद्देश्यपूर्ण लेखन का उदाहरण ‘सुलेख का कार्य कीजिए’ नहीं है।
 सोद्देश्यपूर्ण अर्थात् उद्देश्य के साथ किया गया कार्य। नौकरी के लिए आवेदन पत्र लिखिए, मंचन के सामान की सूची बनाइए, साइकिल चोरी हो जाने की सूचना लिखिए तीनों ही सोद्देश्यपूर्ण लेखन के उदाहरण हैं।
लेखन कौशल—भावों एवं विचारों की अभिव्यक्ति जब लिखित रूप में होती है उसे लेखन कौशल कहते हैं।
 पत्र लेखन-पत्र लेखन एक कला है जिसके द्वारा हम अपने भावनाओं को दूसरे तक पहुंचाते हैं अर्थात् ‘ऐसा कागज जिस पर कोई बात लिखी अथवा छपी हो’। पत्र के द्वारा व्यक्ति अपनी बातों को दूसरों तक लिखकर पहुंचाता है। हम पत्र को अभिव्यक्ति का एक सशक्त माध्यम भी कह सकते हैं। पत्र लेखन के मुख्यतः 2 प्रकार होते हैं ‘औपचारिक पत्र तथा अनौपचारिक पत्र’।
139. **विकल्प (4) उचित है।**
व्याख्या—हिन्दी भाषा आंकलन की दृष्टि से ‘किसी ऐसी घटना का वर्णन कीजिए जब रक्त की कमी हो गयी हो’ प्रश्न सबसे बेहतर है।
मुख्य बिन्दु
 ■ सृजनात्मकता को बढ़ावा देना।
 ■ नई दिशा में सोचने के लिए प्रेरित करना।
 ■ मौलिक विचारों का समावेश।
 भाषा आंकलन एक संवादात्मक तथा रचनात्मक प्रक्रिया माना जाता है, जिसके द्वारा शिक्षक विद्यार्थी का उचित भाषा अधिगम की जांच करता है। भाषा आंकलन की स्थिति में बच्चों को ऐसी गतिविधियों में लिप्त होने का मौका देना चाहिए जिससे कि उनके विचारों में मौलिकता का समावेश हो सके।

140. **विकल्प (4) उचित है।**
व्याख्या—पाठ में आए व्यावहारिक शारीरिक शब्दों में ‘इक’ प्रत्यय का प्रयोग हुआ है। “आप भी ‘इक’ प्रत्यय से तीन शब्द बनाइए।” यह प्रश्न संदर्भ में व्याकरण का उदाहरण है।
 ■ **सन्दर्भ का अर्थ—**किसी विषय के बारे में।
 ■ **व्याकरण का अर्थ—**किसी भाषा के बोलने अथवा लिखने के नियमों की विशेष पद्धति।
सन्दर्भ में व्याकरण
 ■ नियमों की विशेष पद्धति
 ■ व्याकरण को (उपसर्ग, प्रत्यय, संज्ञा, इत्यादि) को समझने के सहायक
 व्याकरण किसी भाषा के बोलने तथा लिखने के नियमों की व्यवस्थित पद्धति है अर्थात् व्याकरण भाषा को व्यवस्थित करने का कार्य करती है। व्याकरण भाषा को स्थिर रखती है। यह भाषा के स्वरूप की सार्थक व्यवस्था करता है। यह भाषा का शरीर विज्ञान है तथा व्यावहारिक विश्लेषण करता है। ‘संदर्भ में व्याकरण’ का शैक्षिक निहितार्थ है कि व्याकरण को पाठ के संदर्भ में सिखाया जाता है।
141. **विकल्प (3) उचित है।**
व्याख्या—टी.वी. पर धारावाहिक देखना सामाजिक अन्तः क्रिया का उदाहरण नहीं है क्योंकि टी.वी. हम घर में देखते हैं। मनुष्य एक सामाजिक प्राणी है इसलिए यह सामाजिक सदस्यों के साथ अन्तः क्रिया करता है। अन्तः क्रिया अर्थात् वार्तालाप, सामाजिक सम्पर्क या सम्बन्ध। जब व्यक्ति समाज में रहकर समाज के लोगों के साथ सम्पर्क स्थापित करता है तो वह सामाजिक अन्तः क्रिया कहलाती है।
सामाजिक अन्तः क्रिया के उदाहरण
 ■ दुकानदार से समान खरीदना
 ■ फल-सब्जी बेचना
 ■ पड़ोस के ताऊजी से बातचीत करना
 जो सामाजिक प्रक्रिया से अलग पहचान रखती है, मूर्त, वास्तविक तथा वार्तालाप, सामाजिक संपर्क आपसी संबंधों पर आधारित होती है। आपसी प्रभावों की एक प्रणाली में एक साथ बंधे हुए एक सामाजिक सदस्यों के परस्पर अंतःक्रिया सामाजिक अंतःक्रिया कहलाती हैं। भाषा के द्वारा ही उसके सभी सामाजिक क्रियाकलाप और मनुष्य के सामाजिक प्राणी होने का आधार भाषा ही है विचारों, भावों, इच्छाओं तथा आकांक्षाओं को प्रकट किया जाता है तथा दूसरों द्वारा व्यक्त भावों, विचारों और विचारों द्वारा इच्छाओं को ग्रहण किया जाता है। इस प्रकार वक्ता और श्रोता के बीच परस्पर संप्रेषण के माध्यम से अथवा क्रिया प्रतिक्रिया के माध्यम से मानवीय विचार-विनिमय चलते रहते हैं।
142. **विकल्प (2) उचित है।**
व्याख्या—अंग्रेजी माध्यम के स्कूलों में अंग्रेजी के वर्चस्व को कम करने के लिए अन्य भारतीय भाषाओं के मूल्यवर्धन की ज़रूरत है।
त्रिभाषा सूत्र
 ■ तीन भाषाएँ हिन्दी, अंग्रेजी और सम्बन्धित राज्यों की क्षेत्रीय भाषा।

- राष्ट्रीय शिक्षा नीति 1968 में एक आधिकारिक दस्तावेज के रूप में वर्गीकृत।
 - पहली भाषा—मातृभाषा या क्षेत्रीय भाषा
 - दूसरी भाषा—अंग्रेजी या आधुनिक भारतीय भाषा
 - तीसरी भाषा—हिन्दी या कोई अन्य आधुनिक भारतीय भाषा
- अंग्रेजी माध्यम के स्कूलों में अंग्रेजी के वर्चस्व को कम करने के लिए अन्य भारतीय भाषाओं के मूल्यवर्धन की जरूरत है, तथा इसके लिए त्रिभाषा सूत्र की नीति अपनायी जानी चाहिए— त्रि-भाषा सूत्र भारत में भाषाई स्थिति की चुनौतियों और अवसरों का समाधान करने का एक प्रयास है। यह एक रणनीति है जो 3 भाषाओं हिन्दी, अंग्रेजी और एक क्षेत्रीय भाषा को सीखने के लिए एक प्रारंभिक आधार के रूप में कार्य करती है। इसे 1968 में अधिनियमित किया गया था।
- 143. विकल्प (2) उचित है।**
व्याख्या—विद्यालयों में भाषा दो रूपों में मौजूद है। एक विषय के रूप में और दूसरा माध्यम के रूप में।
- **विषय के रूप में भाषा**—हिन्दी या अंग्रेजी विषय के रूप में हो सकती है।
 - **माध्यम के रूप में भाषा**—अन्य विषयों को समझने में सहायक होती है भाषा, इसलिए भाषा माध्यम के रूप में भी मौजूद है। उदाहरण के लिए—
 - अवधारणाओं को सीखना
 - शब्दावली को सीखना
 - तार्किक विमर्श करने में सहायक
- कला से तात्पर्य रेखा आकृति, रंग, ताल तथा शब्द, जैसे—रेखाचित्र, रंजनकला, मूर्तिकला, नृत्य, संगीत, कविता एवं साहित्य के रूप में मानव की प्रवृत्तियों का बाहरी अभिव्यक्ति है। अभिव्यक्ति—मनुष्य अपने मनोभावों को प्रकाशित करता है तथा अपनी भावनाओं को रूप देता है आकलन रू पाठ्यक्रम से संबंधित विद्यार्थी की प्रगति एवं उपलब्धियों की जानकारी एकत्रित करने, वर्णन एवं विश्लेषण करने की सुनियोजित एवं निरंतर प्रक्रिया।
- 144. विकल्प (2) उचित है।**
व्याख्या—कक्षा आठ में बच्चों के पठन—अवबोधन को विकसित करने का सर्वोत्कृष्ट उदाहरण है—अनुच्छेद पढ़कर प्रश्न बनाना।
- मुख्य बिन्दु**
- यह नजदीकी परीक्षण है।
 - व्याकरण क्षमता एवं शब्द भंडार का आंकलन में सहायक है।
 - पाठक पठन सामग्री के अतिरिक्त अन्य स्रोतों से जानकारी का भी उपयोग कर सकता है। इस परीक्षण के द्वारा बच्चों के पठन अवबोधन क्षमता का विकास होता है। यह उच्च प्राथमिक स्तर के बच्चों के लिए सहायक है।

- 145. विकल्प (3) उचित है।**
व्याख्या—व्याकरण-शिक्षण की आगमन विधि उदाहरण पर बल देती है।
- आगमन विधि**
- शिक्षण अधिगम की सर्वोत्तम विधि है।
 - नए ज्ञान को खोजने के अवसर प्रदान करती है।
- आगमन विधि के गुण**
- मनोवैज्ञानिक विधि।
 - उदाहरणों से नियम की ओर।
 - बच्चों से सामान्य नियम निकलवाए जाते हैं जिससे उनमें रचनात्मकता, आत्मविश्वास गुणों का विकास हो।
- आगमन विधि— यह एक मनोवैज्ञानिक विधि है जिसमें विशिष्ट अनुभवों और उदाहरणों के माध्यम से सामान्य नियमों का निर्माण किया जाता है। इसके द्वारा बच्चे सरल संप्रत्ययों के सहायता से नवीन ज्ञान का संचार करते हैं।
- 146. विकल्प (4) उचित है।**
व्याख्या—भाषा सीखने-सिखाने की प्रक्रिया का अभिन्न अंग आंकलन है। निदानात्मक परीक्षण द्वारा शिक्षण सम्बन्धी कमियों का अवलोकन किया जाता है और उपचारात्मक शिक्षण द्वारा शिक्षण सम्बन्धी कमियों को दूर करने का प्रयास किया जाता है।
- आंकलन—सूचनाओं को एकत्रित करने की प्रक्रिया।**
- आंकलन की आवश्यकता**
- शिक्षकों की कुशलता एवं सफलता का पता लगाने हेतु
 - बालकों की योग्यता, कुशलता और क्षमता का पता लगाने हेतु
- सतत एवम् व्यापक आंकलन को सीबीएसई द्वारा 2009 में शिक्षा के अधिकार अधिनियम के तहत आंकलन की एक स्कूल आधारित प्रणाली के रूप में पेश किया गया है। यह बच्चे के सर्वांगीण विकास अर्थात् विकास के 'शैक्षिक और सह-शैक्षिक' दोनों पहलुओं से संबंधित है।
- 147. विकल्प (2) उचित है।**
व्याख्या—भाषा कौशलों के विकास की दृष्टि से निजी कहानी का मंचन करना सर्वाधिक उपयुक्त गतिविधि है।
- मुख्य बिन्दु**
- बौद्धिक विकास में सहायक
 - मौखिक अभिव्यक्ति में सहायक
 - कल्पना शक्ति और सृजनात्मकता में सहायक
 - व्यवहार कुशल बनाने में सहायक
- छात्रों की कल्पना, तर्क शक्ति तथा अभिव्यक्ति क्षमता का विकास होता है। बालक को जीवन की विभिन्न परिस्थितियों का ज्ञान होता है।
- 148. विकल्प (3) उचित है।**
व्याख्या—बच्चों की सृजनात्मक लिखित अभिव्यक्ति के विकास में सर्वाधिक सहायक विज्ञापन, पोस्टर बनाना है।
- सृजनात्मकता**

- मौलिकता
 - नवीनता
 - मस्तिष्क उद्देलन की प्रक्रिया जिसमें एक विषय पर अनेक प्रकार के विचार उत्पन्न होते हैं।
- लिखित अभिव्यक्ति के साधन
- पत्र लेखन
 - निबन्ध लेखन
 - नाट्य लेखन
- लिखित अभिव्यक्ति अर्थात् लिखने की स्वतंत्रता लिखना अर्थात् लेखन कौशल चारों भाषा कौशलों में सबसे अंतिम चरण है। बच्चों में लेखन कौशल का विकास मौलिक विचारों को लिखित रूप देने तथा विभिन्न उद्देश्यों के लिए लिखने की क्षमता को संदर्भित करता है। लिखित भाषा का प्रयोग अपनी भाषा को अभिव्यक्त करने के लिए किया जाता है।
- 149. विकल्प (3) उचित है।**
व्याख्या—पढ़ने की प्रक्रिया में सर्वाधिक महत्त्वपूर्ण अर्थ व्यंजन है। यह एक उद्देश्यपूर्ण चिन्तन प्रक्रिया है। इसमें अर्थ ग्रहण पर अधिक बल दिया जाता है। कविता का ऐसा गूढ़ अर्थ जिसमें एक बात के भीतर कई अर्थ समाहित हो, व्यंजना शब्द शक्ति कहलाता है। पढ़ना अथवा पठन भाषा के चार कौशलों में से एक है। यह एक सार्थक, उद्देश्यपूर्ण एवम् चिन्तन प्रधान प्रक्रिया है जिसमें भाषा की संरचना की समझ तथा पढ़े जा रहे पाठ के साथ विद्यार्थी के भावनात्मक संबंध द्वारा अर्थ ग्रहण पर बल दिया जाता है। पढ़ना सीखने के लिए आवश्यक है ताकि लक्ष्य भाषा की अर्थपूर्ण और रोचक सामग्री सुनने-पढ़ने को मिले।
- 150. विकल्प (4) उचित है।**
व्याख्या—कक्षा सात की सलमा अक्सर 'पकड़' को 'पकड' और 'डमरू' को 'डमरू' लिखती है। एक भाषा शिक्षक के रूप में हम कहेंगे कि सलमा का 'ड'/'ड़' ध्वनि संकेत सम्बन्ध कमजोर है।
- | | |
|--------------|---------------|
| शुद्ध | अशुद्ध |
| पकड़ | पकड |
| डमरू | डमरू |
- सलमा 'ड' और 'ड़' का ज्ञान तो रखती है लेकिन उसका ध्वनि-संकेत सम्बन्ध कमजोर है जिसके कारण त्रुटि करती है। सलमा अक्सर 'पकड़' को 'पकड' और 'डमरू' को 'डमरू' लिखती है अर्थात् वह ड और ड़ का अंतर नहीं समझ पा रही है अतः वह ड और ड़ में अंतर नहीं जानती या उसका ध्वनि संकेत सम्बन्ध कमजोर है या शिक्षक उसके उच्चारण में अंतर करने में असमर्थ है। सलमा को लिपि के ज्ञान का अभाव है।