

# CTET Solved Paper

Paper-1  
30th January 2023

Time: 2 hours 30 mins.

Total Marks: 150

## Child Development and Pedagogy

- Although domains of development overlaps with each other in certain aspects yet which of the following domain of development specifically attempts to study the progression of 'feelings' about self and others?
  - Moral Development
  - Language Development
  - Physical Development
  - Emotional Development
- Which of the following Principle of Development suggests that 'some specific responses get combined in the later process of development to form a whole'?
  - Principle of Continuity
  - Principle of integration
  - Cephalocaudal Principle
  - Proximodistal Principle
- Which of the following factor comes under the category of socio-cultural factors having an influence on development?
  - School climate
  - Neurological deficits
  - Biological dispositions
  - Genetic makeup
- In accordance to Jean Piaget's theory of cognitive development, a teacher should give tasks requiring \_\_\_\_\_ to students in age group 7-11 years for working independently.
  - Hypothetical-deductive reasoning
  - Reversible thinking
  - Passive imitation
  - Object permanence
- According to Jean Piaget's theory of cognitive development, at which stage do most children become capable of solving abstract problems in logical fashion?
  - Sensorimotor
  - Preoperational
  - Concrete operational
  - Formal operational
- Noori judges other actions based on the argument that 'we have some duties towards society and we should obey rules for that sake'. As per Lawrence Kohlberg, what stage of moral reasoning is Noori at present?
  - Pre-conventional
  - Conventional
  - Post-conventional
  - Formal-conventional
- A teacher gives assignments which requires students to get into discussion with significant others in the family. As per Lev Vygotsky's theory, she believes that \_\_\_\_\_ plays a significant role in cognitive development of children.
  - imitation
  - biological maturation
  - hierarchy
  - social interactions
- In accordance with Lev Vygotsky's ideas, a teacher should:
  - avoid giving cues or hints to students in any circumstance.
  - discourage students to verbalise their thoughts while working on a problem.
  - encourage discussions and debates among students.
  - view learning independent to socio-cultural context of students.
- Lev Vygotsky believed that higher-order mental processes are mediated by \_\_\_\_\_.
  - psychological tools
  - rewards and punishments
  - conditioning
  - memorisation
- As per Howard Gardner's theory, students who are good at understanding other's feelings, moods and intentions posses higher level of \_\_\_\_\_ kind of intelligence.
  - Interpersonal
  - Spatial
  - Musical
  - Intrapersonal
- As per Lev Vygotsky's ideas, which of the following statement characterizes the correct relation between language and thought?
  - Language has no role in self-regulation of thoughts.
  - Self-directed talk of children represents their ego-centricism.
  - Inner-speech of children represents an internal plane of verbal thinking.
  - Verbalisation of thoughts hinders children's problem-solving skills.
- 'Boys are always good in science and girls are always good in music', this statement reflects \_\_\_\_\_.
  - Gender Equity
  - Gender Parity
  - Gender Identify
  - Gender Stereotype

13. Diversity in terms of socio-cultural context of students in a classroom should be \_\_\_\_\_.  
 (1) eliminated by dividing students based on their context.  
 (2) Ignored and standardised curriculum should be practiced.  
 (3) considered as an asset and be utilised in teaching a concept.  
 (4) the criteria of labelling the students and strengthening stereotypes.
14. In order to promote critical thinking among students, a teacher should present \_\_\_\_\_ requiring \_\_\_\_\_.  
 (1) open-ended questions, divergent thinking.  
 (2) close-ended questions, convergent thinking.  
 (3) problems from real life context, convergent thinking.  
 (4) decontextualised scenarios; application of declarative knowledge.
15. Formative Assessment should be done \_\_\_\_\_.  
 (1) using standardised group tests.  
 (2) by special educator and not by regular teacher.  
 (3) regularly in collaboration with students.  
 (4) at the beginning and end of the session only.
16. Inclusive education suggests that principles of \_\_\_\_\_ should be practiced to ensure that all students achieve their best potential.  
 (1) Equity (2) Equality  
 (3) Prejudice (4) Segregation
17. Dyspraxia is directly related to difficulties in:  
 (1) Reading of text  
 (2) Remembering of facts  
 (3) Physical coordination of body parts  
 (4) Manipulation of numbers
18. **Assertion (A):** To ensure inclusion of all students multiple modes of representation of information should be practised in classroom.  
**Reason (R):** Concept of inclusion includes children with learning disabilities but does not include children with emotional difficulties.  
 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
19. While the condition of Autism varies considerably, yet students with Autism are often good at:  
 (1) maintaining eye contact for long  
 (2) communicating with strangers  
 (3) adjusting with frequent changes in their routine  
 (4) retaining extensive factual information
20. An identifying characteristic feature of creative children is that:  
 (1) they conform to norms  
 (2) they like to imitate others  
 (3) they are independent in their thinking  
 (4) they have a short attention span
21. The correct sequence of presenting ideas to children is from \_\_\_\_\_ to \_\_\_\_\_.  
 (1) complex, simple  
 (2) general, specific  
 (3) abstract, concrete  
 (4) symbolic, iconic
22. A teacher wants to deepen the understanding and memory of knowledge constructed by the students. Which of the following strategy will *not* be effective for this purpose?  
 (1) Creating a metaphor.  
 (2) Applying the information to new problems.  
 (3) Acting out the relations between sub-concepts.  
 (4) Mixing irrelevant information with relevant information.
23. **Assertion (A):** A teacher should encourage students to think about their own thinking processes and ways of learning.  
**Reason (R):** Metacognition helps in development of higher order cognitive skills.  
 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
24. Karan always considers more than one solution to any problem and often comes up with innovative solutions.  
 This exemplifies  
 (1) Divergent thinking  
 (2) Convergent thinking  
 (3) Negative thinking  
 (4) Irrational thinking
25. For learning to be effective and meaningful, it is important to:  
 (1) establish connections between learning in school and life outside school  
 (2) deliver the content by ensuring that students don't make attempts to apply that knowledge in everyday life.  
 (3) teach concepts in a way that connections between different subconcepts are not established  
 (4) focus on reception of knowledge and urge for understanding should be minimised
26. Classroom climate, pedagogies and assessment methods should be chosen in ways that ensure promotion of \_\_\_\_\_ among the students.  
 (1) curiosity (2) disinterest  
 (3) competition (4) rote memorisation
27. Which of the following is *not* a correct approach of a teacher to deal with errors made by students?  
 (1) Searching for patterns in the errors.  
 (2) Exploring the learning gaps causing errors.  
 (3) Scaffolding the students to rectify errors.  
 (4) Telling the correct answers without discussion with students.

28. A teacher should promote \_\_\_\_\_ and \_\_\_\_\_ among students.
- (1) entity view of ability, performance-oriented goals
  - (2) incremental view of ability, mastery-oriented goals
  - (3) entity view of ability, failure-avoidance goals
  - (4) incremental view of ability, failure-accepting goals
29. Which of the following is correct in context of emotion and cognition?
- (1) High stress enhances problem-solving skills.
  - (2) Sense of joy enhances engagement in discussion.
  - (3) High anxiety improves processing of information.
  - (4) Sense of boredom improves critical thinking.
30. Which of the following contributes to the development of effective problem-solving skills?
- (i) Convergent thinking
  - (ii) Mnemonics
  - (iii) Comprehension
  - (iv) Passive imitation
- (1) (i) and (ii)
  - (2) (ii) and (iii)
  - (3) (i) and (iii)
  - (4) (ii) and (iv)

### Mathematics

31. Vishal has ten dozen candies. He gave  $\frac{1}{3}$  of these to Radha,  $\frac{2}{5}$  of these to Asif and  $\frac{1}{12}$  of these to Sonu. The number of candies left with Vishal is:
- (1) 20
  - (2) 18
  - (3) 22
  - (4) 16
32. What is the sum of all the factors of 56?
- (1) 64
  - (2) 120
  - (3) 63
  - (4) 176
33. Which of the following is correct ?
- (1)  $\frac{3}{5} > \frac{5}{7}$
  - (2)  $\frac{2}{5} = \frac{8}{30}$
  - (3)  $\frac{1}{5} > \frac{1}{3}$
  - (4)  $1\frac{1}{3} > 2\frac{1}{6}$
34. In which of the following, the numbers are written in ascending order ?
- (1) 5.02., 5.022, 5.032, 5.32, 5.201
  - (2) 5.32, 5.201, 5.032, 5.022, 5.02
  - (3) 5.02, 5.32, 5.022, 5.201, 5.032
  - (4) 5.02, 5.022, 5.032, 5.201, 5.32
35. The sum of the place values of 7 in 75707 is:
- (1) 77007
  - (2) 7077
  - (3) 70707
  - (4) 21
36. What is the least number which must be subtracted from 60078 so that is divisible by 245 ?
- (1) 40
  - (2) 49
  - (3) 53
  - (4) 61
37. Look at the following units of measuring length : km, mm, m, cm, dm  
If we arrange them in ascending order, which unit will be at fourth place ?
- (1) cm
  - (2) dm
  - (3) mm
  - (4) m

38. What is the time 6 hours 35 minutes before 15:20 hours?
- (1) 9:05 am
  - (2) 8:45 am
  - (3) 8:35 am
  - (4) 9:10 am
39. Jayanti walks  $\frac{3}{5}$  km from a place P towards east and then from there  $1\frac{5}{7}$  km towards west. Where will she be now from P ?
- (1)  $1\frac{4}{35}$  km towards east of P
  - (2)  $4\frac{1}{35}$  km towards west of P
  - (3)  $1\frac{4}{35}$  km towards west of P
  - (4)  $4\frac{1}{35}$  km towards east of P
40. Which one of the following is *not* correct ?
- (1) Two and a half dozen = 30
  - (2) 5 litres 50 millilitres = 550 millilitres
  - (3) 12 millimetre = 0.1 centimetre
  - (4) 10 paise = ₹ 0.10
41. Which of the following figures does *not* have equal number of linear and rotational symmetries ?
- (1) Square
  - (2) Rectangle
  - (3) Parallelogram
  - (4) Rhombus
42. Rehan makes cubes using paper folding. He makes 25 cubes of each side 5 cm. Now, he needs a big box to keep all these cubes. What should be the volume of the big box so that all small cubes can be kept in it without leaving any empty space ?
- (1)  $15625 \text{ cm}^3$
  - (2)  $3125 \text{ cm}^3$
  - (3)  $3375 \text{ cm}^3$
  - (4)  $3552 \text{ cm}^3$
43. What is the median of the heights given below ?  
160 cm, 167 cm, 158 cm, 159 cm, 161 cm, 158 cm, 160 cm, 162 cm, 170 cm
- (1) 161 cm
  - (2) 160 cm
  - (3) 160.6 cm
  - (4) 159 cm
44. Read the data given in following table and select the correct statement :
- | Game liked by students | Number of students |
|------------------------|--------------------|
| Football               | 60                 |
| Chess                  | 50                 |
| Badminton              | 70                 |
| Volleyball             | 20                 |
- (One student likes one game only)
- (1) The number of students who like Chess is more than the number of students who like Football.
  - (2) The number of students who like Badminton is less than the number of students who like Football.
  - (3) Number of students who like Chess are one-fourth of the total number of students.
  - (4) Number of students who like Volleyball are  $\frac{1}{5}$  of the total number of students.



45. Which of the following numbers are missing from the given pattern :  
0, 1, 1, 2, 3, 5, 8,....., 21, 34,....., 89  
(1) 11, 43 (2) 13, 55  
(3) 15, 41 (4) 17, 39
46. Assessment in mathematics should *not* focus upon:  
(1) Identifying learning gaps in conceptual understanding of the learners  
(2) Planning need-based remedial classes in mathematics  
(3) Providing feedback to the learners  
(4) Labelling the learners according to their marks in a test
47. Which of the following is most important aspect of foundational numeracy ?  
(1) Doing quick and accurate calculations  
(2) Developing number sense  
(3) Grasp of standard algorithms for fundamental number operation  
(4) Developing the skill of counting
48. As per the National Curriculum Framework 2005, Which among the following is most appropriate with Primary Mathematics curriculum ?  
(1) It must explicitly incorporate the progression that learners make from the concrete to the abstract while acquiring concepts.  
(2) It must include mainly those topics which have application in higher classes.  
(3) It should introduce algebraic notations and its use in solving problems.  
(4) It should provide opportunities to the students to use various methods of proving theorems.
49. A teacher asked a class I student to write 54. The student wrote 504. Which of the following is the most appropriate strategy to rectify this mistake ?  
(1) Ask the child to erase zero from the middle place.  
(2) Mark the answer as wrong and ask the child to write 5 and 4.  
(3) Explain how to write two-digit numbers using bundling activity.  
(4) Ask the student to find out the correct answer himself/herself.
50. What is the correct sequence for developing the concept of area of a rectangle ?  
(a) Covering the given rectangle with erasers or sharpeners and asking the students to count them.  
(b) Measuring the sides of rectangle and calculating its area by multiplying length and breadth.  
(c) Covering surface of the rectangle with square tile of side 1 cm and counting the number of tiles.  
(1) (a), (b) and (c)  
(2) (a), (c) and (b)  
(3) (b), (c) and (a)  
(4) (b), (a) and (c)
51. Brief notes that a teacher takes as he/she observes children, to document a range of behaviours that children depict while doing an activity/task in a classroom is an example of:  
(1) Anecdotal Records (2) Rubrics  
(3) Observations (4) Project
52. In teaching mathematical concepts the use of visual manipulatives help to move from:  
(1) Complex to simple concepts  
(2) Concrete to abstract concepts  
(3) Formal to informal algorithms  
(4) Abstract to concrete concepts
53. Problem-solving strategies in mathematics involve:  
(1) intuition and experimentation  
(2) memorisation and procedural fluency  
(3) observation and experimentation  
(4) reasoning and patterning
54. Which of the following is the least appropriate about teaching and learning of Lowest Common Multiple (LCM) at the primary school level ?  
(1) It can be indirectly introduced in primary grades using activity method  
(2) It cannot be taught to children of primary grade  
(3) There are many every day instances where this concept is tacitly used by the children  
(4) It can be introduced in an interesting manner using ICT
55. When asked to calculate  $5 \times 28$ , a child solves it in the following way :  
 $5 \times 28 = 28 \times 5 = (14 \times 2) \times 5 = 14 \times (2 \times 5) = 14 \times 10 = 140$   
The child has used:  
(a) Commutative law (b) Distributive law  
(c) Associative law  
Choose the correct option:  
(1) (a) and (c) (2) (a) and (b)  
(3) Only (a) (4) (b) and (c)
56. Which of the following activities is most appropriate for the development of spatial understanding among primary grade learners?  
(1) Representing numbers on number line  
(2) Drawing a map of their homes showing relative sizes and position of rooms  
(3) Measuring the distance between two cities on a map  
(4) Recalling the names of geometrical figures
57. While introducing addition of one digit number, Ms. Alka uses concrete objects such as tokens, pencils, erasers etc. She provides opportunities to the students to manipulative these objects to add single digit numbers. According to Bruner, this mode of learning is known as:  
(1) Concrete (2) Iconic  
(3) Enactive (4) Symbolic
58. A child gives examples of different shapes from his surrounding like 'Samosa is a triangle'. The child is at which level of geometric thinking according to Van-Hiele's theory?  
(1) Analysis (2) Axiomatic  
(3) Deduction (4) Visualization

59. While solving a subtraction problem,  $63 - 29$ , a child says, "I changed 29 into 30 and 63 into 64. So I changed the problem to  $64 - 30$ . My answer is 34." What can be said about this child ?
- (1) The child does not know how to solve  $63 - 29$ .
  - (2) The child is getting confused with addition and subtraction.
  - (3) The child has conceptual understanding of subtraction and hence uses an alternate strategy.
  - (4) The child has neither conceptual understanding nor the knowledge of standard algorithm of subtraction.
60. In a mathematics class a child responds that " $7 \times 0 = 7$ " and " $0 \times 7 = 7$ "  
In the light of above situation, the child
- (1) is being careless and inattentive in the class
  - (2) needs to be told that multiplication tables start from  $7 \times 1 = 7$
  - (3) needs to be given more questions for practice for correct computation
  - (4) is incorrectly extending the properties of addition of multiplication problems

### Environmental Studies

61. Radha goes 2.5 km towards North from her house. Now turning to the left she goes 5 km and again turns to left and goes 2.5 km. How far she is from her house and in which direction ?
- (1) 5 km South from her house
  - (2) 5 km North from her house
  - (3) 5 km West from her house
  - (4) 5 km East from her house
62. 'Vally of Flowers' National Park is located in which State ?
- (1) Uttar Pradesh
  - (2) Uttarakhand
  - (3) Kerala
  - (4) Karnataka
63. I am a small and skinny chap  
Sometimes I am brown and  
sometimes black,  
Added to hot oil and ghee  
I spread my fragrance all around me.  
When I am roasted,  
Curd and jaljeera are favourite to me.  
Think and tell me who am I ?  
Identify the spice mentioned in the above riddle.
- (1) Turmeric
  - (2) Cinnamon
  - (3) Cumin
  - (4) Clove
64. Which is the major component of CNG?
- (1) Ethane
  - (2) Propane
  - (3) Butane
  - (4) Methane
65. A student boarded a train on 29<sup>th</sup> September, 2022 which started from Gandhidham Railway Station at 12:30 hours and reached Thiruvananthapuram railway station on 1st October, 2022 at 7:00 hours. If the distance travelled by the train during this time interval is 2296 kilometers, the average speed of the train is approximately.
- (1) 58 km/h
  - (2) 55.5 km/h
  - (3) 54.0 km/h
  - (4) 53.5 km/h
66. Your house is located at X and your school is located at Y and there is no straight road between X and Y. So, in order to reach the school you first go to A which is 60 m due North of X, then go to B which is 25 m due East of A, then go to C which is 100 m due North of B and finally you reach your school which is 25 m due West of C. With respect to your school the correct direction of your house is :
- (1) Due North
  - (2) Due South
  - (3) North-West
  - (4) South-West
67. Select from the following a pair of birds having excellent sight and can distinctly see things from a distance four times as far as we can.
- (1) Crow and Owl
  - (2) Kite and Vulture
  - (3) Indian Robin and Eagle
  - (4) Barbet and Crow
68. Select from the following, a pair of diseases caused/ spread by mosquitoes:
- (1) Malaria and Dengue
  - (2) Cholera and Chikungunya
  - (3) Cholera and Malaria
  - (4) Chikungunya and Typhoid
69. On the map of a city, following scale is mentioned at its right bottom Scale 1 cm = 950 metres  
If on this map the measured distance between any two places is 19.2 cm, the actual distance between the two places is approximately
- (1) 20 kilometres
  - (2) 19.5 kilometres
  - (3) 19 kilometres
  - (4) 18 kilometres
70. A visitor gave the following description of most of the houses of rural areas of a state:  
"In this area rainfall is very scarce. Weather is generally hot and the people live in mud houses. The walls of the houses are made thick and are plastered with mud. The roofs are made of thorny bushes."  
The state must be
- (1) Madhya Pradesh
  - (2) Gujarat
  - (3) Rajasthan
  - (4) Jharkhand
71. "Char Chinari" is a very famous tourist place. This place is surrounded by mountains and is located in:
- (1) Hyderabad
  - (2) Lucknow
  - (3) Mysore
  - (4) Srinagar
72. Select from the following an animal whose sense of hearing is so sharp that it can make out the difference between the rustling of leaves and the sound of an animal moving on the grass.
- (1) Sloth
  - (2) Dog
  - (3) Tiger
  - (4) Horse
73. Which of the following pair is correct?
- (1) Wheat : Tap Root
  - (2) Maize : Tap Root
  - (3) Carrot : Tap Root
  - (4) Bamboo : Tap Root

74. Consider the following statements about a tree named "Desert Oak":  
 A. This tree is found in the deserts of Abu Dhabi.  
 B. This tree grows almost as tall as the height of a common classroom of an elementary school, i.e., about 4 metres.  
 C. Its roots go deep down into the ground till they reach the water level.  
 D. The length of the root of this tree is about 50 such trees laid down in a line end to end one after the other.  
 E. This tree has very few leaves.  
 The correct statements are:  
 (1) A, B and C (2) A, D and E  
 (3) B, C and E (4) B, D and E
75. Select from the following a State/Union Territory where people like to eat fish cooked in mustard oil.  
 (1) Kashmir (2) Goa  
 (3) Lakshadweep (4) Puducherry
76. Anecdotal records are used to:  
 A. Identify a child's areas of interest and relationships  
 B. Make judgements about a child  
 C. Provide solutions to a child in problematic situations  
 D. Know strengths and weaknesses of a child  
 The correct option is:  
 (1) A and B (2) B and C  
 (3) A and C (4) A and D
77. Astha asked her class IV learners two short questions before starting the chapter on spices. Through this, Astha wanted to:  
 (1) check previous knowledge of students  
 (2) identify intelligent students in the class  
 (3) identify learners with good confidence and communication skills  
 (4) elicit learners ideas about the topic-spices
78. Madhavi took her class for a field trip. After coming back she discussed the trip with her students. It may be stated as:  
 (1) Assessment of learning  
 (2) Assessment for learning  
 (3) Assessment as learning  
 (4) Assessment while learning
79. Effective teaching-learning will take place only if:  
 (1) the teacher conducts it to complete his/her lesson plan  
 (2) the teacher conducts it in compliance with school orders  
 (3) the teachers transacts lesson plan for activity-based learning upon peer's directions  
 (4) the activities conducted by the teacher help children in constructing knowledge and understanding the concepts
80. To assess socio-personal qualities of children engaged in learning of EVS through group work, the most appropriate tool will be:  
 (1) Assignments (2) Paper-and-Pencil Test  
 (3) Rating Scales (4) Oral Questions
81. As an EVS teacher which of the following factors will you consider while planning a group activity for your class?  
 A. Arouse interest among children  
 B. Inclusive in nature  
 C. Cost effectiveness  
 D. Can only be conducted outdoors  
 Choose the correct option:  
 (1) A, B and C (2) B, C and D  
 (3) A, C and D (4) Only A
82. Priyanka wants to sensitize her students on conservation of trees. Which amongst the following will be least effective in attaining the desired objective?  
 (1) Encouraging students to plant a tree and take care of it.  
 (2) Organizing a role play on forest conservation.  
 (3) Telling the story of 'Chipko Movement' and asking questions.  
 (4) Visiting a mill to show storage of logs of wood.
83. Identify the student-centred approaches in teaching-learning of EVS from the following:  
 A. Autocratic style  
 B. Permissive style  
 C. Integrated approach  
 D. Process-oriented approach  
 (1) Only A (2) A and B  
 (3) C and D (4) B, C and D
84. Values are part of our \_\_\_\_\_ behavioural system.  
 (1) Affective  
 (2) Cognitive  
 (3) Psychomotor  
 (4) Affective and cognitive both
85. The nature of EVS can be best described as:  
 A. It integrates several disciplines.  
 B. It is child-centred.  
 C. It is experiential.  
 D. It is teaching-based.  
 (1) A, B and C (2) B, C and D  
 (3) Only C (4) Only B
86. From the words given below, choose at least 3 words/options which describe 'Environment'.  
 A. Flora and fauna  
 B. Biotic and Abiotic  
 C. Social and Cultural  
 D. Creative and Curious  
 (1) A, B and D (2) A, B and C  
 (3) B and C (4) A, C and D
87. In EVS teaching-learning process, linking classroom experiences with real-life experiences outside classroom best implies.  
 (1) going beyond the scope of curriculum  
 (2) going beyond the specific grade  
 (3) going beyond the textbooks  
 (4) going beyond the level of learners
88. 'Survey and write' has been included in some chapters of EVS textbook for grade 5. It aims at:  
 (1) giving opportunities to students to explore and learn  
 (2) giving experience to students  
 (3) improving practical skills of students  
 (4) improving general awareness of students
89. Which of the following is an effective strategy of EVS?  
 (1) Lecture (2) Practical  
 (3) Role Play (4) Demonstration



90. The approach of teaching-learning of EVS that uses different skills to learn new things is:
- (1) Conceptual Approach
  - (2) Process Approach
  - (3) Integrated Approach
  - (4) Activity Approach

### Language: English

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

1. We face a public health emergency—and it isn't COVID-19. WHO has termed climate change as the single biggest health threat facing humanity. As our planet experiences global warming, manifest in rising temperatures, extreme weather and the loss of biodiversity, mirroring symptoms in human health are growing. The number of extremely hot days worldwide—when the temperature breaches 50°C—has doubled since the 1980s. Extreme heat waves are thrice as common now and their health impacts are tremendous—searing heat sweeping across Canada and North America in 2021 claimed over 500 lives. The World Economic Forum estimates 2,50,000 annual losses of life worldwide from 2023, with intensifying exposure to heat, infectious diseases and malnutrition, climate change causing crop failures.
2. Importantly, climate changes health impacts are both extreme and everyday. Already ten million precious lives are lost annually to air pollution, caused by the combustion of fossil fuels like coal and diesel, leading factors also of the global warming which ails Earth. As these fuels cause air quality decline, respiratory diseases, which impact 334 million people struggling with asthma worldwide, will grow, encompassing cardiovascular challenges too. Alongside, our planet's precarious health is showing in increased floods and droughts—these changes in precipitation drive a profusion of pathogen-carrying vectors of disease. As we humans plough through the forests and water bodies these vectors would normally live in, we open more channels for these germs to reach us. Such impacts aren't just physiological—in 2020, over 51 million people, already struggling with the COVID-19 pandemic, were impacted by 84 weather disasters. These climate shocks, which literally displace people from the Earth they stand on, are now driving mental health conditions worldwide.
3. But there are prescriptions for this malaise. Experts emphasise, these range from pivotal policy shifts—the sooner economies opt for renewable energy, the better for Earth and us—to personal changes like adopting a plant-based diet. We can mitigate climate impacts on health. There has never been a more pressing reminder that our bodies come from nature—by healing Earth, we heal ourselves.
91. The world is facing the biggest health threat due to:
  - (1) extreme poverty
  - (2) poor health care
  - (3) climate change
  - (4) increasing population

92. According to the World Economic Forum, extreme heat waves will:
  - (1) cause severe shortage of water.
  - (2) lead to huge loss of life.
  - (3) result in unmanageable lack of food.
  - (4) unleash more pandemics.
93. Air pollution which annually claims millions of lives is mainly caused by:
  - (1) burning of bio-mass
  - (2) increasing number of industrial units
  - (3) combustion of fossil fuels
  - (4) hydraulic energy plants
94. Which of the following is *not* correct?
  - (1) The number of extremely hot days has trebled.
  - (2) Vectors normally live in forests and water bodies.
  - (3) Poor air quality will aggravate incidence of asthma and heart diseases.
  - (4) Extreme weather conditions are one of the important causes of global warming.
95. Read the following statements:
  - A. Intense exposure to heat can cause malnutrition.
  - B. Adopting a plant-based diet can considerably reduce climate effects.
  - (1) A is true and B is false
  - (2) B is true and A is false
  - (3) Both A and B are true
  - (4) Both A and B are false
96. The word, 'tremendous' in para 1 means the same as:
  - (1) fatal
  - (2) scary
  - (3) huge
  - (4) horrendous
97. The word opposite in meaning to the word, 'experts' as used in para 3 is:
  - (1) ignorant
  - (2) laymen
  - (3) mediocre
  - (4) ineligible
98. The word, 'extreme' in para 2, line 2 is a/an:
  - (1) Adverb
  - (2) Noun
  - (3) Preposition
  - (4) Adjective
99. The word 'respiratory' in respiratory diseases 'para 2' is used as a/an:
  - (1) Verb
  - (2) Adverb
  - (3) Noun
  - (4) Adjective

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

Winter is the king of showmen,  
Turning tree trunks into snow men  
And houses into birthday cakes  
And spreading sugar over lakes  
Smooth and clean and frosty white,  
The world looks good enough to bite.  
That's the season to be young,  
Catching snowflakes on your tongue!  
Snow is snowy when it's snowing.  
I'm sorry it's slushy when it's going.

100. Winter is called the king of showmen because it:
- (1) fills the people with enthusiasm.
  - (2) is the best of all seasons.
  - (3) creates many delightful figures.
  - (4) makes the old feel young.

101. Which of the following activities is mentioned in the poem?  
 (1) People running around when it is snowing.  
 (2) People catching snowflakes on tongues.  
 (3) Children throwing snowballs at each other.  
 (4) Children making snowmen and houses with snow.
102. The image of "stumps turning into snowmen" appeals to our sense of:  
 (1) smell (2) touch  
 (3) sight (4) hearing
103. The streets look slushy when:  
 (1) dust laden winds begin to blow.  
 (2) dry leaves start falling.  
 (3) the snow starts melting.  
 (4) people start their outdoor activities.
104. Identify and name the figure of speech used in the line, "winter is the king of showmen".  
 (1) Metonymy (2) Metaphor  
 (3) Personification (4) Simile
105. Name the literary device used in "spreading sugar" in line number 4.  
 (1) Assonance (2) Personification  
 (3) Alliteration (4) Simile
106. Who said, "a child's brain contains special language learning mechanisms at birth"?  
 (1) Chomsky (2) Skinner  
 (3) Piaget (4) Vygotsky
107. When the teacher refers to the rules governing the structure and sequence of speech sounds in their classes, then he/she emphasizes on:  
 (1) Phonology (2) Semantics  
 (3) Syntax (4) Morphology
108. Language is just one aspect of a child's overall intellectual development. This statement is directly associated with:  
 (1) Chomsky (2) Skinner  
 (3) Piaget (4) Vygotsky
109. Find the correct sequence while using imitation method.  
 (1) Perception–Imitation–Feedback–Drill  
 (2) Perception–Imitation–Drill–Feedback  
 (3) Perception–Drill–Imitation–Feedback  
 (4) Perception–Feedback–Drill–Imitation
110. Speaking is the function of:  
 (1) Visual sense (2) Lingual sense  
 (3) Audio sense (4) Touch sense
111. The concept of Universal Grammar is associated with:  
 (1) Skinner (2) Piaget  
 (3) Chomsky (4) Vygotsky
112. In the classroom a teacher is focusing over phonemes and different structures to be mastered by the learners. Here the teacher is influenced by:  
 (1) Functional Approach (2) Cognitive Approach  
 (3) Structural Approach (4) Lexical Approach
113. When children transition from word-gesture combinations to jointly two words i.e. 'mommy shoe', 'go car', 'more cookies', etc., this is an example of:  
 (1) Telegraphic speech (2) Cooing  
 (3) Babbling (4) Crying
114. Which of the following initiative helps students to learn about the remarkable unity of most of the major Indian languages?  
 (1) Swachh Bharat Abhiyan  
 (2) Ek Bharat Shreshtha Bharat  
 (3) Sarva Shiksha Abhiyan  
 (4) Digital India Campaign
115. Which one of the following is considered as the encoder?  
 (1) Sender (2) Signal  
 (3) Channel (4) Receiver
116. Every individual has some feelings, emotions, ideas and he/she wants to give an outlet to those experiences of life. By using a language, the individual is able to express his views. Which function of language is involved in this situation?  
 (1) Expressive (2) Informative  
 (3) Interactive (4) Preservation
117. Which one of the following technique *cannot* be used to teach language pronunciation?  
 (1) Singing songs (2) Reciting poems  
 (3) Reading aloud (4) Writing stories
118. When infants repeat consonant-vowel combinations, often in long strings such as 'bababababa' and 'nananananana', this is an example of:  
 (1) Cooing (2) Babbling  
 (3) Crying (4) Movement
119. Language learning is simply a matter of stimulus-response association acquired largely through pattern practice, mimicry and memorization. This statement is associated with:  
 (1) Behaviourist's theory (2) Nativist perspective  
 (3) Cognitivist theory (4) Constructivist theory
120. Which of the following activity is *not* appropriate for developing reading skill?  
 (1) Reading aloud (2) Scanning a text  
 (3) Reading for inference (4) Use of abbreviation

### Language: Hindi

**निर्देश (121-129):** निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के सही/सबसे उपयुक्त उत्तर वाले विकल्प को चुनिए।

मनुष्य एक सामाजिक प्राणी है। वह सदैव अपनी इच्छापूर्ति में लगा रहता है। मगर इच्छाएँ कभी पूर्ण नहीं होती हैं। एक इच्छा की पूर्ति होती है, तो दूसरी जन्म ले लेती है। इस प्रकार इच्छाओं का अनवतर क्रम चलता रहता है। यही इच्छाएँ ही मनुष्य के दुख का कारण होती हैं। यदि हमें सच्चा सुख पाना है, तो अपनी इच्छाओं का दमन करना होगा। भारतीय मनीषियों ने कहा था—जीवन में सफलता की प्राप्ति के लिए जिन गुणों को आवश्यक माना जाता है, उनमें संतोष का स्थान अत्यंत महत्वपूर्ण है। भारत के ऋषियों ने लोभ को मानव का शत्रु कहा है। काम, क्रोध, लोभ और मोह को जीवन के विनाश का द्वार माना जाता है। संतोष द्वारा लोभ से मुक्ति मिलती है। संतोष के मार्ग पर चलकर ही व्यक्ति महापुरुष बन सकता है।

121. मनुष्य किस कार्य में लगा रहता है ?

- (1) क्षतिपूर्ति (2) इच्छापूर्ति  
 (3) उद्देश्यपूर्ति (4) खानापूर्ति



122. इच्छाएँ कभी पूरी नहीं होती हैं, क्योंकि:

- (1) इच्छाएँ कभी पूरी नहीं हो सकती हैं।
- (2) एक के बाद एक नई इच्छाएँ जन्म लेती हैं
- (3) इच्छाएँ अमर हैं, उनकी पूर्ति संभव नहीं है।
- (4) किसी भी इच्छा को पूरा नहीं किया जा सकता है।

123. निम्नलिखित में से कौन-सा जीवन के विनाश का कारण नहीं है ?

- (1) क्रोध
- (2) मोह
- (3) लोभ
- (4) संतोष

124. गद्यांश के अनुसार मनुष्य का दुश्मन कौन है ?

- (1) क्रोध
- (2) वैराग्य
- (3) नैराश्य
- (4) लालच

125. गद्यांश के अनुसार वे ही मनुष्य महान बन सकते हैं, जो:

- (1) परिश्रम के बल पर सफलता प्राप्त करते हैं।
- (2) अपनी राह स्वयं चुनते हैं।
- (3) जो प्रत्येक स्थिति में संतुष्ट रहते हैं।
- (4) जो अपने भाग्य का स्वयं निर्माण करते हैं।

126. 'मुक्ति' का विलोम शब्द है:

- (1) वंदन
- (2) बंधन
- (3) बदन
- (4) बिधाता

127. "इच्छा" में इक प्रत्यय लगाने पर बनेगा:

- (1) इच्छिक
- (2) ऐच्छिक
- (3) ईच्छिक
- (4) एच्छिक

128. 'महापुरुष' में समास है:

- (1) अव्ययीभाव
- (2) तत्पुरुष
- (3) कर्मधारय
- (4) बहुव्रीहि

129. समूह से भिन्न शब्द है:

- (1) क्रोध
- (2) लोभ
- (3) सच्चा
- (4) सच

निर्देश (130-135): निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के सही/सबसे उपयुक्त उत्तर वाले विकल्प को चुनिए।

है कौन विघ्न ऐसा जग में,  
टिक सके आदमी के मग में ?  
खम लोंक ठेलता है जब नर,  
पर्वत के जाते पाँव उखड़।  
मानव जब जोर लगाता है,  
पत्थर पानी बन जाता है।  
गुण बढ़े एक से एक प्रखर,  
हैं छिपे मानवों के भीतर,  
मेंहदी में जैसी लाली हो,  
वर्तिका-बीच उजियाली हो,  
बत्ती जो नहीं जलाता है,  
रोशनी नहीं वह पाता है।

130. कविता में मानव के किस गुण का उल्लेख किया गया है?

- (1) युद्धशीलता
- (2) शक्तिवान
- (3) रोशन
- (4) मानवीयता

131. 'पत्थर पानी बन जाता है।' से तात्पर्य है:

- (1) असंभव को संभव करना
- (2) पत्थर से पानी निकलना
- (3) पत्थर को पिघलना
- (4) असंभव का त्याग करना

132. मानव के भीतर छिपे गुणों की तुलना किससे की गई है?

- (1) मेंहदी के पत्तों के छिपी उजियाली
- (2) मेंहदी के पत्तों में छिपी लालिमा
- (3) मेंहदी के पत्तों में छिपी हरियाली
- (4) मेंहदी के पत्तों में छिपी ठण्डक

133. वीर मनुष्य के सामने समस्त बाधाएँ:

- (1) प्रखर हो जाती हैं
- (2) शांत हो जाती हैं
- (3) बढ़कर आती हैं
- (4) चट्टान बन जाती हैं

134. सुख प्राप्त करने के लिए:

- (1) बत्ती जलानी होगी
- (2) युद्ध करना होगा
- (3) पत्थर उखाड़ने होंगे
- (4) कर्मठ होना होगा

135. 'वर्तिका' का अर्थ है:

- (1) चक्करदार रास्ता
- (2) दीये की बाती
- (3) एक देश का नाम
- (4) एक शहर का नाम

136. "बच्चे के मस्तिष्क में विशेष भाषा अधिगम यंत्र जन्म से ही होता है।" यह किसने कहा है ?

- (1) चॉम्स्की
- (2) स्किनर
- (3) पियाजे
- (4) वाइगोत्सकी

137. कक्षा में वाक् ध्वनियों की संरचना और क्रम को नियंत्रित करने वाले नियमों की बात की जा रही है। अध्यापिका किस बात पर बल दे रही है?

- (1) स्वर विज्ञान
- (2) अर्थ ग्राम
- (3) वाक्य विन्यास
- (4) आकृति विज्ञान

138. भाषा बच्चे के समग्र बौद्धिक विकास का सिर्फ एक पहलू है। यह कथन सीधे-सीधे किससे संबंधित है?

- (1) चॉम्स्की
- (2) स्किनर
- (3) पियाजे
- (4) वाइगोत्सकी

139. अनुकरण विधि का प्रयोग करने से संबंधित कौन-सा क्रम सही है ?

- (1) प्रत्यक्षबोध → अनुकरण → प्रतिपुष्टि → ड्रिल
- (2) प्रत्यक्षबोध → अनुकरण → ड्रिल → प्रतिपुष्टि
- (3) प्रत्यक्षबोध → ड्रिल → अनुकरण → प्रतिपुष्टि
- (4) प्रत्यक्षबोध → प्रतिपुष्टि → ड्रिल → अनुकरण

140. वाचन (बोलना) किसका प्रकार्य है?

- (1) दृश्य इन्द्रिय
- (2) भाषिक इन्द्रिय
- (3) श्रवण इन्द्रिय
- (4) स्पर्श इन्द्रिय

141. सार्वभौमिक व्याकरण की अवधारणा किससे सम्बन्धित है ?

- (1) स्किनर
- (2) पियाजे
- (3) चॉम्स्की
- (4) वाइगोत्सकी

142. अध्यापिका कक्षा में इस बात पर अधिक ध्यान दे रही है कि शिक्षार्थी ध्वनिग्राम और विभिन्न संरचनाओं की समझ अच्छी तरह से बना लें। अध्यापक किससे प्रभावित है ?

- (1) कार्यात्मक उपागम
- (2) संज्ञानात्मक उपागम
- (3) संरचनात्मक उपागम
- (4) कोश विषयक उपागम

143. जब बच्चे शब्द-हाव-भाव के संयोजन के बाद दो शब्दीय जैसे माँ जूता, दादी साथ, मैं भी, आदि वाक्य द्वारा अभिव्यक्त करते हैं, तो यह किसका उदाहरण है ?

- (1) दो शब्दीय संक्षिप्त भाषा
- (2) कूजन
- (3) बबलाना
- (4) रोना

**ANSWER KEY**

144. निम्नलिखित में से कौन-सी पहल विद्यार्थियों को अधिकांश मुख्य भारतीय भाषाओं की उल्लेखनीय एकता से परिचित करवाएगी?

- (1) स्वच्छ भारत अभियान
- (2) एक भारत श्रेष्ठ भारत
- (3) सर्व शिक्षा अभियान
- (4) डिजिटल इंडिया कैम्पेन

145. निम्नलिखित में से कौन-सा संकेत (कूट) को बनाने वाला (एनकोडर) है ?

- (1) प्रेषक
- (2) संकेत
- (3) चैनल (धारा)
- (4) ग्रहणकर्ता

146. प्रत्येक व्यक्ति के पास भावनाएँ, अनुभूतियाँ, विचार हैं और सभी अपने जीवन के अनुभवों को अभिव्यक्त करना चाहते हैं। भाषा के प्रयोग द्वारा व्यक्ति स्वयं को अभिव्यक्त करते हैं। इस स्थिति में भाषा का कौन-सा प्रकार्य संलग्न है ?

- (1) अभिव्यक्ति
- (2) सूचनात्मक
- (3) अंतःक्रियात्मक
- (4) संरक्षण

147. निम्नलिखित में कौन-सी तकनीक भाषा उच्चारण सिखाने के लिए प्रयुक्त नहीं की जा सकती है ?

- (1) गीत गाना
- (2) कविता पाठ
- (3) सस्वर पठन
- (4) कहानी लिखना

148. जब शिशु व्यंजन-स्वर के मिश्रण की लम्बी तान में स्वयं को अभिव्यक्त करते हैं, जैसे कि—'बा बा बा बा' या 'ना ना ना ना' SS

यह किसका उदाहरण है ?

- (1) कूजन
- (2) बबलाना
- (3) रोना
- (4) गति

149. भाषा अधिगम सामान्यतः उद्दीपन-प्रतिक्रिया संबंध का विषय है जिसे प्रतिरूप अभ्यास, अनुकरण और कंठस्थीकरण द्वारा अर्जित किया जाता है। यह कथन किससे सम्बन्धित है ?

- (1) व्यवहारवादी सिद्धांत
- (2) प्रकृतिवादी सिद्धांत
- (3) संज्ञानात्मक सिद्धांत
- (4) रचनात्मक सिद्धांत

150. निम्नलिखित में से कौन-सी गतिविधि पठन कौशल विकसित करने के लिए उपयुक्त नहीं है?

- (1) सस्वर पठन
- (2) बारीकी से पठन
- (3) निष्कर्ष निकालने के लिए पठन
- (4) संक्षिप्त रूप का प्रयोग

**Child Development and Pedagogy**

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

**Mathematics**

31. (3)	32. (2)	33. (3)	34. (4)	35. (3)
36. (3)	37. (4)	38. (2)	39. (3)	40. (2)
41. (3)	42. (2)	43. (2)	44. (3)	45. (2)
46. (4)	47. (2)	48. (1)	49. (3)	50. (3)
51. (1)	52. (2)	53. (4)	54. (2)	55. (4)
56. (2)	57. (3)	58. (4)	59. (3)	60. (4)

**Environmental Studies**

61. (1)	62. (2)	63. (3)	64. (4)	65. (3)
66. (4)	67. (2)	68. (1)	69. (4)	70. (3)
71. (4)	72. (4)	73. (3)	74. (3)	75. (1)
76. (4)	77. (4)	78. (2)	79. (4)	80. (3)
81. (1)	82. (4)	83. (3)	84. (4)	85. (1)
86. (2)	87. (3)	88. (1)	89. (4)	90. (4)

**Language: English**

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

**Language: Hindi**

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

# CTET Solved Paper (Answers with Explanation)

Paper-1  
30th January 2023

## Child Development and Pedagogy

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

**Explanation:** The domain of development that specifically attempts to study the progression of 'feelings' about self and others is (4) Emotional Development. Emotional development focuses on understanding and managing emotions, as well as developing empathy and forming relationships with others. It involves the growth of emotional awareness, self-regulation, and social skills. This domain explores how individuals perceive, express, and interpret emotions, both in themselves and in others, throughout different stages of life.

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

**Explanation:** The principle of development that suggests that "some specific responses get combined in the later process of development to form a whole" is (2) Principle of Integration. The Principle of Integration states that various individual abilities and behaviors become combined and coordinated over time to form more complex and integrated skills. It emphasizes the idea that development involves the organization and synthesis of different components or responses into more comprehensive and unified structures. This principle highlights how different aspects of development, such as cognitive, motor, and social-emotional skills, come together to create a more holistic and functional whole.

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

**Explanation:** The factor that comes under the category of socio-cultural factors having an influence on development is (1) School climate. Socio-cultural factors refer to the social and cultural environment in which an individual grows and develops. These factors include social norms, cultural values, family dynamics, educational systems, and community influences. School climate specifically pertains to the social and emotional environment within a school, including factors such as school policies, teacher-student relationships, peer interactions, and the overall atmosphere. School climate can

have a significant impact on a child's social, emotional, and academic development, shaping their attitudes, behaviors, and overall well-being.

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

**Explanation:** According to Jean Piaget's cognitive development theory, tasks involving Hypothetical-deductive reasoning are suitable for independent work by students aged 7-11. This stage, known as concrete operational, sees children's cognitive abilities expand. They begin to think logically about concrete situations, solve problems systematically, and form hypotheses. Tasks encouraging hypothetical-deductive reasoning might include puzzles requiring logical deduction, science experiments with predicted outcomes, or story scenarios prompting them to draw conclusions based on given information. This helps nurture their ability to think beyond immediate realities and consider hypothetical situations—an essential skill in their cognitive growth.

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

**Explanation:** According to Jean Piaget's theory of cognitive development, children become capable of solving abstract problems in a logical fashion at the (4) Formal operational stage.

The formal operational stage is the fourth and final stage in Piaget's theory, typically occurring from adolescence onwards. During this stage, individuals develop the ability to think abstractly, reason deductively, and engage in hypothetical and logical thinking. They can consider multiple variables and perspectives when solving problems, use systematic and scientific reasoning, and think about possibilities and hypothetical situations.

In the formal operational stage, individuals can think beyond concrete experiences and apply logical reasoning to abstract concepts and hypothetical scenarios. They are capable of handling complex problem-solving tasks that involve critical thinking, planning, and considering various possibilities and outcomes.

The sensorimotor stage (1) is the first stage, which spans from birth to

about 2 years of age, where infants primarily understand the world through sensory experiences and motor actions. The preoperational stage (2) occurs roughly from ages 2 to 7, where children develop symbolic thinking but still have limitations in logic and perspective-taking. The concrete operational stage (3) occurs from around ages 7 to 11 and involves more logical and operational thinking but is still grounded in concrete experiences rather than abstract reasoning.

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

**Explanation:** Based on the situation, Noori's moral reasoning can be classified as being at the (2) Conventional stage according to Lawrence Kohlberg's theory of moral development.

In the conventional stage, individuals base their moral judgments on societal norms, expectations, and the desire to maintain social order. Noori's argument that "we have some duties towards society and we should obey rules for that sake" aligns with this stage. Conventional moral reasoning emphasizes conformity to social norms and laws as a way to ensure social harmony and uphold the functioning of society. Individuals at this stage typically strive to follow rules and meet the expectations of others, as well as seek approval from authority figures.

In contrast, the pre-conventional stage (1) is characterized by a focus on self-interest and personal rewards or punishments, while the post-conventional stage (3) involves the development of a personal moral code based on abstract principles of justice and fairness. The term "formal-conventional" (4) is not a recognized stage in Kohlberg's theory.

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

**Explanation:** As per Lev Vygotsky's theory, the teacher believes that social interactions play a significant role in the cognitive development of children. Therefore, the correct option is (4) social interactions.

Vygotsky's sociocultural theory emphasizes the importance of social interactions, particularly with more knowledgeable others, in shaping cognitive development. According to Vygotsky, learning and cognitive



development occur within a social and cultural context. Children learn and acquire new knowledge and skills through interactions and collaborations with others, such as parents, teachers, and peers.

In the scenario mentioned, the teacher recognizes the value of involving significant others in the family, such as parents or siblings, in the students' learning process. By engaging in discussions with family members, the students have the opportunity to interact with individuals who may possess more knowledge and experience, allowing for the co-construction of understanding and the development of higher-order thinking skills.

While imitation (1) and biological maturation (2) do play a role in development, they are not the primary focus of Vygotsky's theory. Vygotsky emphasized the social and cultural influences on cognitive development, and how language, tools, and social interactions shape learning and thinking processes. The term "hierarchy" (3) does not accurately reflect Vygotsky's theory and is not directly related to the teacher's belief about the role of social interactions in cognitive development.

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

**Explanation:** In accordance with Lev Vygotsky's ideas, a teacher should (3) encourage discussions and debates among students.

Vygotsky's sociocultural theory emphasizes the importance of social interactions and collaborative learning in cognitive development. According to Vygotsky, learning occurs through social interactions and conversations with others who are more knowledgeable or experienced. By engaging in discussions and debates, students have the opportunity to share their ideas, perspectives, and knowledge with their peers, which can promote higher-level thinking, problem-solving skills, and the development of new understandings.

Encouraging discussions and debates among students allows them to engage in a process called "scaffolding." Scaffolding refers to the support provided by a more knowledgeable person to help learners develop their skills and understanding. In this context, the teacher can act as a facilitator, guiding and encouraging students to explore different viewpoints, analyze arguments, and construct their own knowledge through dialogue and collaborative problem-solving.

The other options (1), (2), and (4) are not aligned with Vygotsky's ideas. Vygotsky believed that providing clues or hints (1) can be helpful for students as they scaffold their learning. Verbalizing thoughts (2) is actually encouraged in Vygotsky's theory as it helps students externalize their thinking and engage in self-regulation and metacognition. Lastly, Vygotsky's theory explicitly highlights the importance of socio-cultural context in learning, suggesting that learning is deeply influenced by the cultural and social environment in which it takes place. Therefore, a teacher should not view learning as independent of the socio-cultural context of students (4).

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

**Explanation:** Lev Vygotsky believed that higher-order mental processes are mediated by (1) psychological tools.

According to Vygotsky's sociocultural theory, psychological tools are cultural artifacts, symbols, and instruments that mediate cognitive processes and facilitate higher-order thinking. These tools include language, writing systems, calculators, diagrams, maps, and other external resources that individuals use to think, solve problems, and communicate.

Psychological tools serve as mediators between an individual's current level of development and the desired or higher level of development. They provide support and assistance to individuals as they engage in cognitive tasks and help bridge the gap between what individuals can do independently and what they can accomplish with the aid of these tools.

Language, in particular, is considered a primary psychological tool. It not only serves as a means of communication but also plays a crucial role in internal thought processes. Language allows individuals to communicate with others, regulate their own behavior, and engage in higher-order cognitive functions such as abstract thinking, problem-solving, and self-reflection.

The other options, rewards and punishments (2), conditioning (3), and memorization (4), are not central to Vygotsky's theory of cognitive development and do not capture the concept of mediation through psychological tools.

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

**Explanation:** According to Howard Gardner's theory of multiple intelligences, students who are good at understanding other's feelings,

moods, and intentions possess a higher level of the (1) Interpersonal intelligence.

Gardner proposed that there are multiple intelligences, each representing different ways in which individuals can excel and demonstrate their cognitive abilities. Interpersonal intelligence refers to the ability to understand and interact effectively with others, including the capacity to perceive and discern the emotions, motivations, and intentions of others. People with high interpersonal intelligence are often skilled at empathy, communication, social awareness, and building relationships.

Individuals with strong interpersonal intelligence are typically sensitive to the emotions and needs of others.

They are skilled at interpreting nonverbal cues, understanding social dynamics, and effectively communicating and collaborating with others. They often excel in areas such as counseling, teaching, leadership, and teamwork.

Spatial intelligence (2) refers to the ability to perceive and manipulate visual-spatial information, such as mental imagery, spatial relationships, and navigation. Musical intelligence (3) relates to musical skills, including pitch perception, rhythm, composition, and appreciation of musical patterns. Intrapersonal intelligence (4) is focused on self-awareness, self-reflection, and the ability to understand one's own emotions, thoughts, and motivations.

In this case, the description aligns with the characteristics associated with the interpersonal intelligence, indicating that individuals who are adept at understanding others' feelings, moods, and intentions possess a higher level of interpersonal intelligence.

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

**Explanation:** According to Lev Vygotsky's ideas, the correct statement that characterizes the relation between language and thought is (3) Inner-speech of children represents an internal plane of verbal thinking.

Vygotsky proposed that language and thought are interconnected and that they develop in a mutually supportive manner. According to his sociocultural theory, inner-speech or self-directed talk serves as an important function in cognitive development. Inner-speech refers to the use of language to guide and regulate one's own thinking and problem-solving processes.

Inner-speech starts as external speech, where children talk aloud

as they engage in activities or solve problems. Over time, it gradually becomes internalized, meaning it is transformed into an internal thought process. Inner-speech represents an internal plane of verbal thinking and becomes a tool for self-regulation, planning, and guiding one's actions. Vygotsky argued that inner-speech plays a crucial role in helping children regulate their thoughts, control their behaviors, and solve problems more effectively. It serves as a means for individuals to direct and organize their thinking, monitor their actions, and reflect on their experiences. By engaging in inner-speech, children can guide themselves through tasks, strategize, and monitor their own progress. The other options (1), (2), and (4) do not align with Vygotsky's ideas. Vygotsky emphasized the important role of language in cognitive development, particularly in self-regulation, social interactions, and problem-solving skills. Language plays a crucial role in shaping and supporting cognitive processes rather than hindering them.

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

**Explanation:** The statement "Boys are always good in science and girls are always good in music" reflects gender stereotype. It implies that certain abilities or interests are inherently tied to gender, reinforcing traditional and often unfounded generalizations about the capabilities of boys and girls. Gender stereotypes can limit individuals' opportunities, reinforce inequality, and restrict their choices based on societal expectations. It is important to recognize that abilities and interests are not predetermined by gender and that both boys and girls can excel in any field they choose.

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

**Explanation:** Diversity in terms of socio-cultural context of students in a classroom should be considered as an asset and utilized in teaching a concept.

Diversity in a classroom can bring a range of perspectives, experiences, and knowledge that can enrich the learning environment. Recognizing and embracing the socio-cultural context of students can create a more inclusive and engaging classroom atmosphere. It allows for the incorporation of diverse perspectives and experiences into teaching, helping students relate to and understand concepts in a way that is meaningful to them. By leveraging this diversity, educators can create a more effective and

culturally responsive learning environment.

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

**Explanation:** open-ended questions; divergent thinking.

To promote critical thinking among students, a teacher should present open-ended questions that encourage students to think critically, analyze information, and generate multiple possible solutions or perspectives. Open-ended questions do not have a single correct answer and require students to engage in divergent thinking, which involves exploring various possibilities and considering different viewpoints. This approach encourages creativity, problem-solving skills, and the ability to evaluate information critically, fostering a deeper understanding of the subject matter.

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

**Explanation:** regularly in collaboration with students.

Formative assessment is an ongoing process that involves gathering information about students' progress and understanding throughout their learning journey. It is not limited to specific points at the beginning or end of a session. Instead, formative assessment should be conducted regularly and in collaboration with students. This means involving students in the assessment process, providing them with feedback, and engaging them in self-assessment and reflection.

By conducting formative assessment regularly and involving students, teachers can gain valuable insights into students' strengths, areas for improvement, and misconceptions. This information can then be used to adjust teaching strategies, provide targeted support, and guide instruction effectively. Collaborating with students in the assessment process also promotes their active engagement and ownership of their learning, enhancing their metacognitive skills and overall academic growth.

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

**Explanation:** Inclusive education emphasizes the principle of equity, which means ensuring that all students have access to the resources, opportunities, and support they need to reach their full potential. Equity recognizes that students have diverse backgrounds, abilities, and learning needs, and it aims to address any systemic barriers or inequalities that may hinder their progress.

In an inclusive education setting, equity involves providing accommodations, modifications,

and individualized support to meet the unique needs of each student. It focuses on removing barriers to learning and creating an inclusive environment where every student feels valued, respected, and empowered. By promoting equity, inclusive education aims to ensure that all students have an equal opportunity to succeed and thrive academically, socially, and emotionally.

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

**Explanation:** Dyspraxia, also known as developmental coordination disorder (DCD), is a neurodevelopmental disorder that affects a person's ability to plan and coordinate movements. It is characterized by difficulties with fine and gross motor skills, balance, coordination, and spatial awareness. Individuals with dyspraxia may struggle with activities such as tying shoelaces, using cutlery, handwriting, playing sports, and coordinating movements required for tasks like dressing or brushing teeth. These challenges are primarily related to physical coordination of body parts.

It's important to note that dyspraxia primarily affects motor skills and coordination and is not directly related to difficulties in reading text, remembering facts, or manipulating numbers, which are typically associated with other learning or cognitive difficulties.

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

**Explanation:** Assertion (A) is true because using multiple modes of representation of information can help to ensure that all students, regardless of their learning style or abilities, can access and understand the information being presented. For example, a teacher might use a combination of visual, auditory, and kinesthetic activities to teach a concept.

Reason (R) is also true, but it is not the correct explanation of Assertion (A). The concept of inclusion includes all children, regardless of their learning disabilities or emotional difficulties. So, using multiple modes of representation of information is not just important for children with learning disabilities, but for all children.

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

**Explanation:** While autism spectrum disorder (ASD) is a condition that can vary considerably, it is important to note that generalizations cannot be made about all individuals with Autism. Each person with Autism is unique and may exhibit different strengths and challenges. However, it is worth mentioning that some

individuals with Autism may possess certain abilities or characteristics more commonly associated with the condition.

Among the options provided, retaining extensive factual information (4) is often observed as a strength in individuals with Autism. Many individuals with Autism have exceptional memory skills and a strong interest in specific topics or areas of interest, which can contribute to their ability to retain and recall extensive factual information.

It is important to remember that Autism is a spectrum disorder, and the abilities and challenges of individuals with Autism can vary widely. It is crucial to approach each individual with Autism as an individual and consider their unique strengths and needs.

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

**Explanation:** They are independent in their thinking.

An identifying characteristic feature of creative children is that they tend to be independent in their thinking. Creative individuals often demonstrate a willingness to explore ideas, think outside the box, and generate unique solutions. They may challenge conventional norms and be open to new perspectives and possibilities.

Conformity to norms (option 1) is generally not associated with creative thinking, as creativity often involves breaking away from established norms and finding innovative approaches. Imitation of others (option 2) is also not necessarily indicative of creativity, as creativity involves originality and expressing one's unique ideas.

Regarding attention span (option 4), it is important to note that creativity is not directly linked to having a short or long attention span. Attention span can vary among individuals, and it may have some impact on creative pursuits, but it is not a defining characteristic of creative children.

Therefore, option (3) is the most fitting choice as an identifying characteristic feature of creative children.

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

**Explanation:** Presenting ideas to children in a sequential and understandable manner is vital for effective learning. Beginning with general concepts allows them to grasp the overarching idea before delving into specifics. This approach caters to their cognitive development, as it establishes a strong foundation before introducing intricate details. This

gradual progression helps children build connections between concepts and enhances their comprehension, fostering a more holistic and lasting understanding of the subject matter.

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

**Explanation:** The strategy that will not be effective for deepening the understanding and memory of knowledge constructed by students is: (4) Mixing irrelevant information with relevant information.

Mixing irrelevant information with relevant information can lead to confusion and hinder students' ability to understand and remember the knowledge. It can create cognitive overload and make it difficult for students to extract the key concepts and principles. This strategy is counterproductive to the goal of deepening understanding and memory as it introduces unnecessary distractions and can undermine the clarity of the information being presented.

On the other hand, the other strategies mentioned can be effective for deepening understanding and memory:

(1) Creating a metaphor: Metaphors can help students relate new concepts to something familiar, making it easier for them to understand and remember the information.

(2) Applying the information to new problems: Applying knowledge to new problems helps students reinforce their understanding and develop a deeper grasp of the concepts by actively using and transferring the information.

(3) Acting out the relations between sub-concepts: Acting out or physically representing the relationships between sub-concepts can engage students kinesthetically and visually, enhancing their understanding and memory of the knowledge.

It's important for teachers to employ strategies that support effective learning and promote meaningful connections between concepts to facilitate deeper understanding and memory retention.

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

**Explanation:** (A) A teacher should encourage students to think about their own thinking processes and ways of learning.

This statement is true. Encouraging students to engage in metacognition, which involves thinking about their own thinking processes and ways of learning, is beneficial for their overall learning and cognitive development. It helps students become aware of their learning strategies, monitor their understanding, and make

adjustments as needed. By reflecting on their thinking processes, students can become more self-directed learners and develop effective learning strategies.

(R) Metacognition helps in the development of higher-order cognitive skills.

This statement is also true. Metacognition is closely associated with higher-order thinking skills, such as critical thinking, problem-solving, and self-regulation. When students engage in metacognitive activities, they develop the ability to analyze and evaluate their own thinking, set goals, plan and monitor their learning, and make appropriate adjustments. These metacognitive skills support the development of higher-order cognitive processes and enhance students' ability to think critically, solve complex problems, and learn more effectively.

Therefore, both statements are true, and statement (R) provides the correct explanation for statement (A).

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

**Explanation:** The given scenario exemplifies: (1) Divergent thinking. Divergent thinking refers to the ability to generate multiple solutions or ideas in response to a problem or question. Karan, who considers more than one solution to any problem and often comes up with innovative solutions, demonstrates divergent thinking. He is able to think creatively, explore different possibilities, and generate a variety of ideas.

Convergent thinking, on the other hand, involves finding a single, correct answer or solution based on established rules or criteria. The scenario does not suggest that Karan focuses solely on finding one correct solution, but rather he explores multiple options.

Negative thinking and irrational thinking are unrelated to the given scenario. Negative thinking involves pessimism and focusing on the negative aspects of situations, while irrational thinking refers to thinking that is not logical or based on reason. Therefore, the most appropriate choice in this case is (1) Divergent thinking.

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

**Explanation:** For learning to be effective and meaningful, it is important to:

(1) Establish connections between learning in school and life outside school.

This statement is true. Learning becomes more meaningful and relevant when students can connect what they learn in school to real-



life situations and experiences outside the classroom. By making connections between academic concepts and their practical applications, students can see the value and relevance of what they are learning, which enhances their engagement and understanding.

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

**Explanation:** Curiosity is the desire to learn and explore. It is essential for effective learning because it motivates students to ask questions, seek out new information, and make connections between different ideas. When students are curious, they are more likely to be engaged and motivated to learn. They are also more likely to think critically and creatively.

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

**Explanation:** The approach that is not correct for a teacher to deal with errors made by students is:

4. Telling the correct answers without discussion with students. Simply telling students the correct answers without engaging in discussion or understanding the underlying reasons for the errors is not an effective approach. It does not promote meaningful learning or help students develop their problem-solving and critical-thinking skills. This approach misses the opportunity to address learning gaps, provide necessary support, and encourage students to reflect on their mistakes.

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

**Explanation:** An incremental view of ability is the belief that intelligence is something that can be developed through effort and practice. This view is supported by research, which shows that intelligence is not fixed but can change over time. When students believe that they can improve their intelligence through effort, they are more likely to be motivated to learn and to persist in the face of challenges.

Mastery-oriented goals are goals that focus on learning and understanding new material. These goals are more likely to lead to deep learning and long-term retention of information than performance-oriented goals, which focus on achieving a certain level of performance, such as getting a good grade on a test.

When students have an incremental view of ability and mastery-oriented goals, they are more likely to be engaged and motivated in learning. They are also more likely to take risks and to persevere in the face of challenges. This leads to better academic performance and a more positive learning experience overall.

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

**Explanation:** In the context of emotion and cognition, the following statement is correct:

(2) Sense of joy enhances engagement in discussion.

Positive emotions, such as joy, can have a positive impact on cognition and engagement. When individuals experience positive emotions, they are more likely to be motivated, focused, and open to learning. In the context of a discussion, a sense of joy can enhance participation, creativity, and the overall quality of the conversation.

The other statements, (1), (3), and (4), are not accurate:

(1) High stress does not typically enhance problem-solving skills. While stress can sometimes increase alertness and attention in certain situations, high levels of stress can impair cognitive performance, including problem-solving abilities.

(3) High anxiety does not generally improve processing of information. Anxiety can lead to difficulties in concentration, memory retrieval, and information processing. It often interferes with cognitive functioning and can have a negative impact on learning and performance.

(4) A sense of boredom does not improve critical thinking. Boredom is associated with disengagement and a lack of interest or motivation. It can hinder cognitive processes and make it difficult to maintain focus or generate creative and critical thoughts.

Therefore, statement (2) is the correct one in the given context.

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

**Explanation:** The correct option that contributes to the development of effective problem-solving skills is: (2) (ii) and (iii)

(ii) **Mnemonics:** Mnemonics are memory aids or strategies that help individuals remember information more effectively. They can assist in organizing and encoding information in a way that facilitates problem-solving. Mnemonics can improve memory recall, which is essential for accessing relevant information during the problem-solving process.

(iii) **Comprehension:** Comprehension refers to the understanding and interpretation of information or concepts. Effective problem-solving requires a solid understanding of the problem at hand. It involves analyzing the problem, identifying relevant information, and developing appropriate

strategies. Comprehension skills contribute to the ability to break down complex problems into manageable parts and devise effective solutions.

Convergent thinking (i) refers to the ability to find a single correct solution to a problem, which is not the sole approach in problem-solving. Problem-solving often requires both convergent and divergent thinking, where individuals generate multiple possible solutions and evaluate their effectiveness.

Passive imitation (iv) does not directly contribute to the development of effective problem-solving skills. Problem-solving requires active engagement, critical thinking, and the ability to analyze and generate solutions independently.

Therefore, option (2) is the correct choice as both (ii) Mnemonics and (iii) Comprehension contribute to the development of effective problem-solving skills.

## Mathematics

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

**Explanation:** Vishal has ten dozen candies, which is equal to

$$10 \times 12 = 120 \text{ candies.}$$

He gave  $\frac{1}{3}$  of these candies to

Radha, which is

$$\left(\frac{1}{3}\right) \times 120 = 40 \text{ candies.}$$

He then  $\frac{2}{5}$  gave of these candies to

Asif, which is

$$\left(\frac{2}{5}\right) \times 120 = 48 \text{ candies.}$$

Lastly, he gave  $\frac{1}{12}$  of these candies

to Sonu, which is

$$\left(\frac{1}{12}\right) \times 120 = 10 \text{ candies.}$$

Total number of candies given by him was

$$40 + 48 + 10 = 98$$

Therefore, the number of candies left with Vishal is

$$120 - 98 = 22.$$

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

**Explanation:** To find the sum of all the factors of 56, we can start by finding its prime factorization. 56 can be factored as:

$$56 = 2 \times 2 \times 2 \times 7$$

Now, we need to calculate the sum of the factors using the formula:

Sum of factors

$$= (2^0 + 2^1 + 2^2 + 2^3) \times (7^0 + 7^1)$$

Calculating the values:

$$\begin{aligned}
 &= (1 + 2 + 4 + 8) \\
 &\quad \times (1 + 7) \\
 &= 15 \times 8 \\
 &= 120
 \end{aligned}$$

Therefore, the sum of all the factors of 56 is 120.

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

**Explanation:** To determine which of the statements is correct, we can evaluate each statement individually:

$$(1) \quad \frac{3}{5} > \frac{5}{7}$$

Making the denominator same we get,

$$\begin{aligned}
 \frac{3}{5} &= \frac{3 \times 7}{5 \times 7} = \frac{21}{35} \\
 \frac{5}{7} &= \frac{5 \times 5}{7 \times 5} = \frac{25}{35}
 \end{aligned}$$

$$\frac{21}{35} > \frac{25}{35}$$

Now, compare these fractions

Since,  $\frac{21}{35} < \frac{25}{35}$  the statement

$\frac{21}{35} > \frac{25}{35}$  is incorrect.

$$(2) \quad \text{The fraction } \frac{8}{30} \text{ can be written as } \frac{4}{15} \text{ which is not equal to } \frac{2}{5}$$

So, the statement  $\frac{2}{5} = \frac{8}{30}$  is

incorrect.

$$(3) \quad \text{Now, the third statement says that } \frac{1}{5} < \frac{1}{3}, \text{ making}$$

denominator of both the fraction

$$\frac{1}{5} = \frac{1 \times 3}{1 \times 15} = \frac{3}{15}$$

$$\text{same we get, } \frac{1}{3} = \frac{1 \times 5}{1 \times 15} = \frac{5}{15} \text{ and}$$

$$\frac{3}{15} < \frac{5}{15}$$

Thus, the statement  $\frac{1}{5} < \frac{1}{3}$  is correct.

$$(4) \quad \text{The fractions } 1\frac{1}{3} \text{ and } 2\frac{1}{6}$$

can be written as  $\frac{4}{3}$  and  $\frac{13}{6}$

respectively.

Again,  $\frac{4}{3}$  can be written as  $\frac{8}{6}$ ,

which is less than  $\frac{13}{6}$

Thus, the fourth statement  $1\frac{1}{3} > 2\frac{1}{6}$

is incorrect.

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

**Explanation:** Based on the comparisons, we can conclude that

option (4) has the numbers written in ascending order:

$$5.02 < 5.022 < 5.032 < 5.201 < 5.32$$

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

**Explanation:** To find the sum of the place values of 7 in the number 75707, we need to consider the positions where 7 appears in the number and add up the corresponding place values.

The given number is 75707.

The first 7 is in the ten thousands place which has a value of 70,000

The second 7 is in the hundreds place which has a value of 700

The third 7 is in the ones place which has a value of 7

Adding up these values, we get

$$70,000 + 700 + 7 = 70,707$$

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

**Explanation:**

When 60078 is divided by 245, it leaves 53 as remainder.

According to formula,

$$\text{Dividend} = \text{divisor} \times \text{quotient} + \text{remainder}$$

$$60078 = 245 \times 245 + 53$$

So, if we subtract 53 from the given number 60078, we get, 60025 which is exactly divisible by 245.

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

**Explanation:** If we arrange the units in ascending order based on their measurements, the correct order would be:

mm (millimetre) < cm (centimetre) < dm (decimetre) < m (metre) < km (kilometre).

Therefore, the unit that would be at the fourth place when arranged in ascending order is (4) m (meter).

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

**Explanation:** To find the time 6 hours 35 minutes before 15:20 hours, we subtract 6 hours 35 minutes from 15:20 hours.

Subtracting the hours, we get:

$$15 - 6 = 9 \text{ hours.}$$

Subtracting the minutes, we get

$$20 - 35 = -15 \text{ minutes.}$$

Since we have a negative value for the minutes, we need to borrow 1 hour from the hours.

So, the final result is 9 hours - 1 hour = 8 hours and -15 minutes.

To convert the negative minutes to positive,

we can add 60 minutes to it:

$$-15 + 60 = 45 \text{ minutes.}$$

Therefore, the time 6 hours 35 minutes before 15:20 hours is 8:45 am.

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

**Explanation:** To determine Jayanti's position from place P after walking

$\frac{3}{5}$  km towards east and then

$1\frac{5}{7}$  km towards west, we have

to subtract the distance walked towards the west from the distance walked towards the east.

First, let us convert  $1\frac{5}{7}$  km to an improper fraction:

$$1\frac{5}{7} = \frac{12}{7}$$

Now, we can calculate the net displacement:

$$\begin{aligned}
 \frac{3}{5} \text{ km (east)} &= \frac{3 \times 7}{5 \times 7} \\
 &\quad - \frac{12}{7} \text{ km (west)}
 \end{aligned}$$

To subtract fractions, we need a common denominator  
LCM of 5 and 7 is 35.

$$\frac{3}{5} \text{ km} = \frac{21}{35} \text{ km}$$

$$\frac{12}{7} \text{ km} = \frac{12 \times 5}{7 \times 5}$$

$$= \frac{60}{35} \text{ km}$$

$$\text{Now, } \frac{21}{35} - \frac{60}{35} = -\frac{39}{35}$$

Therefore, Jayanti will be at a position  $\frac{39}{35}$  km or  $1\frac{4}{35}$  km towards

the west from place P.

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

**Explanation:**

We know that,

$$1 \text{ L} = 1000 \text{ ml}$$

$$= (5 \times 1000) \text{ millilitres}$$

$$+ 50 \text{ millilitres}$$

$$5 \text{ Litres and 50 millilitres}$$

$$= 5000 \text{ millilitres} + 50 \text{ millilitres}$$

$$= 5050 \text{ millilitres.}$$

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

**Explanation:** The figure that does not have an equal number of linear and rotational symmetries is (3) Parallelogram.

A square has 4 sides and 4 rotational symmetries, as well as 4 lines of symmetry.

A rectangle has 4 sides and 2 rotational symmetries, as well as 2 lines of symmetry.

A rhombus has 4 sides and 2 rotational symmetries, as well as 2 lines of symmetry.

However, A parallelogram has 4 sides. It has no linear symmetry and 2 rotational symmetries.

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

**Explanation:** To determine the volume of the big box needed to hold all the small cubes without leaving any empty space, we can calculate the total volume of the small cubes and use that as the volume of the big box.

Rehan makes 25 cubes of each side 5 cm. The volume of one cube is given by (side length)<sup>3</sup>.

Volume of one small cube  
 $= (5 \text{ cm})^3 = 125 \text{ cm}^3$   
 Since Rehan makes 25 cubes, the  
 total volume of all the small cubes is:  
 $\text{Total volume} = 25 \text{ cubes}$   
 $\times 125 \text{ cm}^3/\text{cube}$   
 $= 3125 \text{ cm}^3$

Therefore, the volume of the big box  
 should be  $3125 \text{ cm}^3$  in order to hold  
 all the small cubes without leaving  
 any empty space.

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

**Explanation:** To find the median of  
 the given heights, we arrange them  
 in ascending order:

158 cm, 158 cm, 159 cm, 160 cm, 160  
 cm, 161 cm, 162 cm, 167 cm, 170 cm  
 The median is the middle value  
 in a set of data when arranged in  
 ascending or descending order.  
 Here, number of observation is 9.  
 When  $n$  is odd,

$$\begin{aligned}\text{Median} &= \left( \frac{n+1}{2} \right)^{\text{th}} \text{ term} \\ &= \frac{9+1}{2} \\ &= \frac{10}{2} \text{ th term} \\ &= 5^{\text{th}} \text{ term}\end{aligned}$$

Therefore, the median of the heights  
 is 160 cm.

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

**Explanation:** To analyze the given  
 data, let us examine each statement:

- (1) The number of students who  
 like Chess is more than the  
 number of students who like  
 Football.

According to the data, 50  
 students like Chess and  
 60 students like Football.  
 Therefore, this statement is  
 incorrect.

- (2) The number of students who  
 like Badminton is less than the  
 number of students who like  
 Football.

According to the data, 70  
 students like Badminton and  
 60 students like Football.  
 Therefore, this statement is  
 incorrect.

- (3) Number of students who like  
 Chess are one-fourth of the  
 total number of students.

50 students like Chess which is  
 one-fourth of the total that is  
 $200$  ( $60 + 50 + 70 + 20 = 200$ )  
 Therefore, this statement is  
 correct.

- (4) The number of students who  
 like Volleyball is 20 which is not  
 equal to one-fifth of the total  
 number of students.

As, one-fifth of 200 is 40.  
 Therefore, this statement is  
 incorrect.

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

**Explanation:** To identify the missing  
 numbers in the given pattern, let us  
 examine the sequence:

In the Fibonacci sequence the next  
 number is found by adding the two  
 numbers before it.

Thus, the next number after 8 will be  
 $5 + 8$  that is 13 and the number after  
 34 will be  $21 + 34$  that is 55.

The sequence will be 0, 1, 1, 2, 3, 5, 8,  
 13, 21, 34, 55, 89.

Therefore, the missing numbers in  
 the pattern are 13 and 55.

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

**Explanation:** The correct option is  
 (4) Labelling the learners according  
 to their marks in a test.

Assessment in mathematics should  
 not focus on labelling learners  
 according to their marks in a test.  
 Assessment should be a tool to  
 identify learning gaps, plan need-  
 based remedial classes and provide  
 feedback to the learners. It should  
 aim to understand the conceptual  
 understanding of the learners and  
 provide support accordingly.

Labelling learners based solely  
 on their marks can create a fixed  
 mindset, hinder their growth and  
 development in mathematics. It is  
 important to focus on understanding  
 their strengths, weaknesses and  
 areas of improvement rather than  
 simply assigning labels based on test  
 scores.

Therefore, option (4) is the correct  
 choice as it goes against the purpose  
 of meaningful assessment in  
 mathematics.

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

**Explanation:** The most important  
 aspect of foundational numeracy  
 among the options provided is (2)  
 Developing number sense.

Developing number sense refers  
 to having a deep understanding of  
 numbers and their relationships,  
 including concepts such as place  
 value, estimation, comparison  
 and the ability to work flexibly  
 with numbers. Number sense  
 goes beyond mere calculations  
 and focuses on conceptual  
 understanding, reasoning, and  
 problem-solving abilities.

While quick and accurate calculations  
 (option 1) and the grasp of standard  
 algorithms (option 3) are important  
 skills in numeracy, they are built  
 upon a solid foundation of number  
 sense. Developing number sense  
 provides learners with the necessary  
 foundation to perform calculations  
 accurately and efficiently.

Counting (option 4) is an essential  
 skill in numeracy, particularly in  
 the early stages, but it is only one  
 component of developing number  
 sense. Number sense encompasses a

broader range of concepts and skills  
 beyond counting.

Therefore, option (2) Developing  
 number sense is the most important  
 aspect of foundational numeracy.

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

**Explanation:** According to the  
 National Curriculum Framework  
 2005, the most appropriate aspect  
 with the Primary Mathematics  
 curriculum is (1) It must explicitly  
 incorporate the progression that  
 learners make from the concrete  
 to the abstract while acquiring  
 concepts.

The Primary Mathematics curriculum  
 should focus on providing a  
 strong foundation in mathematics  
 by allowing learners to progress  
 from the concrete (hands-on  
 experiences, manipulatives) to the  
 abstract (symbolic representations,  
 algorithms) as they acquire mathe-  
 matical concepts. This approach  
 helps students build a deeper  
 understanding of mathematical  
 ideas by first experiencing them  
 in a tangible and meaningful way  
 before moving towards more abstract  
 representations.

Option (2) stating that the  
 curriculum should include mainly  
 topics with application in higher  
 classes does not align with the  
 primary curriculum, as it should  
 prioritize foundational concepts and  
 skills that lay the groundwork for  
 future learning.

Option (3) suggesting the  
 introduction of algebraic notations  
 and their use in solving problems  
 is more relevant to upper grades  
 rather than the primary level.

Option (4) emphasizing the use  
 of various methods of proving  
 theorems is not typically a focus of  
 the primary curriculum, as it involves  
 more advanced mathematical  
 concepts and techniques.

Therefore, option (1) is the most  
 appropriate with the Primary  
 Mathematics curriculum as per the  
 National Curriculum Framework  
 2005.

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

**Explanation:** The most appropriate  
 strategy to rectify the mistake made  
 by the student, who wrote 504  
 instead of 54, would be to choose  
 option 3: Explain how to write two-  
 digit numbers using a bundling  
 activity.

In this case, the mistake made  
 by the student indicates a lack of  
 understanding of place value. By  
 engaging in a bundling activity,  
 the teacher can demonstrate how  
 to correctly represent two-digit  
 numbers by bundling ten units  
 together.



The teacher can show the student that 54 consists of 5 tens (50) and 4 ones, emphasizing the importance of correctly representing each place value.

Option 1, asking the child to erase the zero from the middle place, may not effectively address the underlying issue of understanding place value.

Option 2, marking the answer as wrong and asking the child to rewrite 5 and 4, does not provide an opportunity for the student to learn from the mistake and understand the correct representation of two-digit numbers.

Option 4, asking the student to find out the correct answer themselves, may not be suitable in this scenario as the student has already demonstrated a misunderstanding of place value.

Therefore, option 3, explaining how to write two-digit numbers using a bundling activity, is the most appropriate strategy to rectify the mistake and support the student's understanding of place value.

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

**Explanation:** The correct sequence for developing the concept of the area of a rectangle is:

(3) (b); (c) and (a)

First, measuring the sides of the rectangle and calculating its area by multiplying the length and breadth (option b) is a fundamental step in understanding the concept of area.

Next, covering the surface of the rectangle with square tiles of a known size (option c) and counting the number of tiles helps students visualize the concept of area as the number of square units required to cover the shape.

Lastly, covering the given rectangle with objects like erasers or sharpeners and asking students to count them (option a) does not directly relate to the concept of area. While it may provide a hands-on activity, it does not help develop a deep understanding of area as a measurement concept.

Therefore, the correct sequence is option (3) (b); (c) and (a).

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

**Explanation:** Anecdotal records are brief notes that a teacher takes while observing children during an activity or task in the classroom. These records document a range of behaviors exhibited by children, capturing specific details, actions, or interactions that are relevant to their learning and development. Anecdotal records provide a written account of the observed behaviors, which can be used for later reflection, analysis, and assessment.

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

**Explanation:** In teaching mathematical concepts, the use of visual manipulatives helps to move from Concrete to abstract concepts.

Visual manipulatives, such as blocks, counters, geometric shapes, or other tangible objects, provide a concrete representation of mathematical concepts. They allow students to engage in hands-on, interactive learning experiences that help them to develop a solid understanding of abstract mathematical ideas.

By starting with concrete manipulatives, students can physically manipulate and explore mathematical concepts, making them more accessible and understandable. As students gain proficiency and understanding through hands-on experiences, they can gradually transition to abstract representations, such as symbols, equations and algorithms.

The use of visual manipulatives bridges the gap between concrete experiences and abstract concepts, enabling students to make connections, develop problem-solving skills and eventually internalize mathematical ideas.

Therefore, option (2) Concrete to abstract concepts is the correct answer.

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

**Explanation:** Problem-solving strategies in mathematics involve (4) reasoning and patterning.

While intuition and experimentation (option 1) can be useful in exploring mathematical problems, problem-solving strategies go beyond these initial approaches. Reasoning involves logical thinking, making connections and drawing conclusions based on evidence or mathematical principles.

Patterning (option 4) is another important aspect of problem-solving. Recognizing patterns and using them to make predictions or solve problems is a key strategy in mathematics. Patterns can provide insights into the underlying structure of a problem and guide problem-solving approaches.

Memorization and procedural fluency (option 2) are important for developing mathematical skills and proficiency but are not the primary focus of problem-solving strategies. Problem-solving strategy involves critical thinking, analysis and applying conceptual understanding rather than relying solely on memorized procedures.

Observation and experimentation (option 3) can be part of the problem-solving process, but they are not the defining strategies. Observation helps in gathering information

and making connections, while experimentation allows for exploration and testing of ideas. However, problem-solving strategies involve more comprehensive approaches that include reasoning, patterning and other problem-solving techniques.

Therefore, option (4) reasoning and patterning is the most accurate description of problem-solving strategies in mathematics.

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

**Explanation:** The least appropriate option about teaching and learning of Lowest Common Multiple (LCM) at the primary school level is option (2) It cannot be taught to children of primary grade.

LCM is a mathematical concept that can certainly be introduced and taught to children at the primary school level. While it may require simplified explanations and hands-on activities to make it more accessible, it is not beyond the comprehension of primary school children. Therefore, option (2) is the least appropriate because it incorrectly suggests that LCM cannot be taught to children at the primary grade level.

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

**Explanation:** The correct option is (4) (b) and (c).

The child has used both the distributive law and the associative law in their solution.

They applied the distributive law by breaking down 28 into  $(14 \times 2)$  and multiplying it by 5.

They also applied the associative law by rearranging the parentheses and multiplying 14 by  $(2 \times 5)$ .

Therefore, the child has used both the distributive law and the associative law in their solution.

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

**Explanation:** The most appropriate activity for the development of spatial understanding among primary grade learners is option (2) Drawing a map of their homes showing relative sizes and position of rooms.

Drawing a map of their homes allows children to apply spatial reasoning skills by representing the layout and relative sizes of rooms. This activity encourages them to visualize and understand spatial relationships, such as how rooms are positioned in relation to each other. It also requires them to consider scale and proportion while drawing the map.

While options (1) Representing numbers on a number line and (3) Measuring the distance between two cities on a map involve spatial concepts to some extent, they are more focused on numerical and

measurement skills rather than developing spatial understanding.

Option (4) Recalling the names of geometrical figures is not directly related to developing spatial understanding but rather focuses on the knowledge of geometric shapes. Therefore, option (2) Drawing a map of their homes showing relative sizes and position of rooms is the most appropriate activity for the development of spatial understanding among primary grade learners.

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

**Explanation:** According to Bruner, the mode of learning described where concrete objects are used for manipulation and understanding, is known as (3) Enactive.

Enactive learning involves learning through direct action and hands-on experiences with concrete objects. In this case, Ms. Alka is using tokens, pencils, erasers and other objects to allow the students to physically manipulate and combine them to understand addition of single-digit numbers. This concrete representation helps students to develop a tangible understanding of the concept before moving on to more abstract representations.

Iconic learning (option 2) refers to learning through visual representations or images. Symbolic learning (option 4) involves learning through abstract symbols, such as numbers or mathematical notation. Therefore, the most appropriate option in this case is (3) Enactive.

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

**Explanation:** According to Van Hiele's theory of geometric thinking, the child who gives examples of different shapes from his surroundings like "Samosa is a triangle" is at the (4) Visualization level.

The Van Hiele levels of geometric thinking propose a developmental sequence of understanding geometric concepts. At the Visualization level, children recognize and identify shapes based on their appearance or visual characteristics. They can visually distinguish basic shapes but may not have a deep understanding of their properties or relationships. In this case, the child's statement about the samosa being a triangle indicates that they are recognizing the visual resemblance of the samosa to a triangle. However, their understanding is primarily based on visual observation rather than a deeper understanding of the properties and characteristics of triangles.

The Analysis level (option 1) involves analyzing and comparing properties of shapes. The Axiomatic level (option 2) involves a formal

understanding of geometric definitions and theorems. The Deduction level (option 3) involves deductive reasoning and logical thinking based on geometric principles.

Therefore, the child's example places them at the Visualization level (option 4) of Van Hiele's theory of geometric thinking.

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

**Explanation:** Based on the given information, it can be said that the child has conceptual understanding of subtraction and hence uses an alternate strategy.

The child's approach of changing 29 to 30 and 63 to 64 indicates that they have a conceptual understanding of subtraction. By adjusting both numbers, they are simplifying the problem by creating a friendlier subtraction calculation, which can be easier to solve mentally. This approach demonstrates flexibility and an understanding of how numbers can be manipulated within a subtraction problem.

Option (1) can be ruled out because the child does solve the problem and provides an answer. Option (2) can also be ruled out because the child demonstrates a clear understanding of the difference between addition and subtraction.

Option (4) is not applicable since the child shows conceptual understanding by employing an alternative strategy to solve the problem.

Therefore, the most appropriate option is (3) - the child has conceptual understanding of subtraction and hence uses an alternate strategy.

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

**Explanation:** In the light of the child's response that " $7 \times 0 = 7$ " and " $0 \times 7 = 7$ ," it can be inferred that the child is incorrectly extending the properties of addition to multiplication problems.

The child's response suggests that they are applying the property of addition, where adding zero to a number does not change the value of the number, to multiplication. However, in multiplication, when one of the factors is zero, the product is always zero. Therefore, both statements provided by the child are incorrect.

Option (1) suggesting that the child is being careless and inattentive may not necessarily be the case since the child is actively participating and providing responses.

Option (2) suggesting that the child needs to be told about the starting point of multiplication tables is not directly relevant to the issue at hand, as the child's error lies

in understanding the concept of multiplying by zero.

Option (3) suggesting that the child needs more practice for correct computation is a valid consideration, as additional practice can help reinforce the correct understanding and application of multiplication concepts. However, the child's error is specifically related to multiplying by zero.

Therefore, the most appropriate option is (4) - the child is incorrectly extending the properties of addition to multiplication problems.

## Environmental Studies

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

**Explanation:** Based on the given information, Radha goes 2.5 km towards North from her house, then turns left and goes 5 km, and finally turns left again and goes 2.5 km.

Considering her movements, after the first leg of 2.5 km towards North, she turns left, which means she is now moving towards the West direction. She continues for 5 km towards the West. Then, she turns left again, which means she is now moving towards the South direction. She goes for another 2.5 km towards the South.

By analyzing her movements, it can be determined that she ends up 5 km South from her house. Therefore, the correct option is (1) - Radha is 5 km South from her house.

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

**Explanation:** The 'Valley of Flowers' National Park is in (2) Uttarakhand.

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

**Explanation:** Based on the clues provided in the riddle, the spice mentioned is (3) Cumin.

Cumin is a spice that can be brown or black in color. It is commonly used in various cuisines to add flavor and aroma. The reference to being roasted and curd and jaljeera being favorite indicates the usage of cumin in roasted or powdered form in dishes and its popularity in specific culinary combinations.

Therefore, the spice mentioned in the riddle is cumin, so the correct option is (3) Cumin.

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

**Explanation:** The major component of CNG (Compressed Natural Gas) is (4) Methane.

CNG primarily consists of methane, which is a hydrocarbon compound made up of one carbon atom and four hydrogen atoms ( $\text{CH}_4$ ). Methane is the primary component of natural gas and is commonly used as a fuel due to its clean-burning properties and relatively

low emissions compared to other fossil fuels.  
Therefore, the correct option is (4) Methane.

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

**Explanation:** To calculate the average speed of the train, we need to determine the total time taken for the journey and divide it by the distance traveled.

The train started from Gandhidham Railway Station on 29th September, 2022, at 12:30 hours and reached Thiruvananthapuram railway station on 1st October, 2022, at 07:00 hours. To calculate the time taken, we can subtract the departure time from the arrival time:

07:00 hours on 1st October to 12:30 hours on 29th September = 42.5 hours.

Now, we can calculate the average speed by dividing the distance traveled (2296 kilometers) by the time taken (42.5 hours):

$$\begin{aligned}\text{Average speed} &= \text{Distance} \div \text{Time} \\ \text{Average speed} &= 2296 \text{ km} \div 42.5 \text{ hrs.} \\ &\approx 54.0 \text{ km/h}\end{aligned}$$

Therefore, the approximate average speed of the train is (3) 54.0 km/h.

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

**Explanation:** To determine the correct direction of your house with respect to your school, we can analyze the given information step by step:

- You start at X (your house) and go to A, which is 60 m due North of X.
- From A, you go to B, which is 25 m due East of A.
- From B, you go to C, which is 100 m due North of B.
- Finally, you reach your school, which is 25 m due West of C.

To simplify the directions, let's assign N for North, S for South, E for East, and W for West.

Based on the given directions, we can determine the relative positions as follows:

- X (your house) is 60 m North of A.
- A is 25 m East of B.
- B is 100 m North of C.
- The school is 25 m West of C.

From the given information, we can infer that the school is in the West of your house. Therefore, the correct direction of your house with respect to your school is (4) South-West.

Please note that the exact compass directions may vary depending on the orientation of the map, but the relative positions indicate that your

house is to the South-West of your school.

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

**Explanation:** The pair of birds that have excellent sight and can see things from a distance four times as far as we can is (2) Kite and Vulture. Kites and vultures are known for their exceptional eyesight and are considered birds of prey. They have adaptations that allow them to spot and locate prey from great distances. Their sharp vision enables them to see objects clearly and detect movements from far away, giving them a significant advantage while hunting or scavenging.

While crows, owls, Indian robins, eagles, and barbets may have good eyesight, kites and vultures are specifically renowned for their exceptional long-distance vision. Therefore, the correct option is (2) Kite and Vulture.

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

**Explanation:** The pair of diseases caused/spread by mosquitoes is: Malaria and Dengue

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

**Explanation:** According to the given scale, 1 cm on the map represents 950 meters in real life.

To find the actual distance between the two places, we need to convert the measured distance on the map (19.2 cm) into real-life distance.

$$19.2 \text{ cm} \times 950 \text{ meters/cm} = 18,240 \text{ meters}$$

Converting meters to kilometers:

$$\frac{18,240 \text{ meters}}{1000} = 18.24 \text{ kilometers}$$

Therefore, the actual distance between the two places is approximately 18.24 kilometers, which is closest to option (4) 18 kilometers.

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

**Explanation:** Based on the given description, the state that matches the characteristics mentioned is (3) Rajasthan.

Rajasthan is known for its arid and dry climate with limited rainfall. The weather is generally hot in most parts of the state. In rural areas, mud houses are common due to the availability of locally sourced materials and their insulating properties. The walls of these houses are often made thick and plastered with mud to provide insulation from the heat. Additionally, the roofs made of thorny bushes, known as "thatched roofs," are commonly used in Rajasthan and other arid regions to provide shade and insulation from the sun.

Therefore, based on the description, the state mentioned is most likely Rajasthan.

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

**Explanation:** The correct option is (4) Srinagar.

"Char Chinari" is a famous tourist place located in Srinagar, which is the summer capital of Jammu and Kashmir, India. Srinagar is known for its beautiful landscapes, including mountains, lakes, and gardens. "Char Chinari" refers to a group of four small islands situated on the Dal Lake in Srinagar. It is a popular attraction for tourists visiting the city, offering scenic views and tranquility amidst the natural surroundings.

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

**Explanation:** The animal whose sense of hearing is so sharp that it can make out the difference between the rustling of leaves and the sound of an animal moving on the grass is the tiger, which corresponds to option (4). Tigers have excellent hearing capabilities, allowing them to detect subtle sounds and distinguish between different types of noises in their environment. This acute sense of hearing is beneficial for hunting and locating potential prey, as well as detecting potential threats or intruders in their habitat.

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

**Explanation:** The correct pair is:

(3) Carrot: Tap Root  
Carrots have a tap root system, where the main root grows straight down into the soil, serving as the primary anchoring root. This tap root gives rise to smaller lateral roots and secondary root branches. The tap root of a carrot stores nutrients, enabling the plant to survive and grow.

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

**Explanation:** The correct statements about the tree named "Desert Oak" are:

(3) B, C, and E

Statement B: This tree grows almost as tall as the height of a common classroom of an elementary school, i.e., about 4 meters.

Statement C: Its roots go deep down into the ground till they reach the water level.

Statement E: This tree has very few leaves.

These three statements are the correct ones that accurately describe the characteristics of the Desert Oak tree.

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

**Explanation:** The State/Union Territory where people like to eat fish cooked in mustard oil is: (1) Kashmir

In Kashmir, fish cooked in mustard oil is a popular dish. The cuisine of Kashmir often includes preparations



of fish, and the use of mustard oil adds a distinct flavor to the dishes. Mustard oil is commonly used in the region for cooking, including the preparation of fish-based recipes.

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

**Explanation:** Anecdotal records are used to identify a child's areas of interest and relationships (Option A). They provide valuable information about a child's preferences, behaviors, and interactions, helping educators and caregivers understand their individual interests and social connections.

Anecdotal records are also used to know the strengths and weaknesses of a child (Option D). By documenting observations and specific incidents, educators can gain insights into a child's abilities, developmental progress, and areas where they may require additional support or challenges.

Therefore, the correct answer is (4) A and D.

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

**Explanation:** Astha asked her class IV learners two short questions before starting the chapter on spices with the intention of eliciting their ideas and prior knowledge about the topic. By asking these questions, Astha wanted to engage the students in thinking and discussing the topic of spices, encouraging them to share their thoughts, experiences, and any existing knowledge they might have. This approach helps in building connections between prior knowledge and new concepts, making the learning experience more interactive and meaningful. The correct option is: (4) elicit learners' ideas about the topic – spices.

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

**Explanation:** When Madhavi discussed the field trip with her students, it can be considered as an example of "assessment for learning." Madhavi encouraged them to reflect on what they learned, connect it to their prior knowledge, and evaluate their understanding of the concepts explored during the trip. This process helps students take ownership of their learning and develop metacognitive skills as they assess their own progress and make connections between the field trip experience and the curriculum. The correct option is: 2 Assessment for learning.

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

**Explanation:** Effective teaching and learning take place when the activities conducted by the teacher facilitate the construction of knowledge and understanding of concepts in students. This means

that the teaching methods and activities employed by the teacher should actively engage students in meaningful learning experiences. Students should be encouraged to participate, explore, inquire, and apply their knowledge in order to construct their understanding of the subject matter. This approach promotes active learning, critical thinking, problem-solving, and the development of higher-order cognitive skills. The emphasis is on students' active involvement and their ability to make connections, analyze information, and apply their learning in real-life situations.

The correct option is: (4) the activities conducted by the teacher help children in constructing knowledge and understanding the concepts.

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

**Explanation:** The most appropriate tool to assess the socio-personal qualities of children engaged in learning of EVS (Environmental Studies) through group work is Rating Scales.

Rating scales are a suitable tool for assessing socio-personal qualities because they allow for the evaluation of various dimensions or characteristics of a student's behavior, attitude, or skills. In the context of group work, a rating scale can be designed to assess qualities such as cooperation, teamwork, communication, leadership, empathy, respect, and responsibility. The rating scale typically consists of a set of statements or descriptors for each quality being assessed, and the teacher or observer rates the extent to which each student displays those qualities based on their observations during the group work activities. This tool provides a systematic and standardized approach to assess socio-personal qualities and allows for a comprehensive evaluation of students' behavior and interactions during group work.

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

**Explanation:** As an EVS teacher, the factors to consider while planning a group activity for the class are:

(1) A, B, and C

**A. Arouse interest among children:** It is essential to plan a group activity that sparks the interest and curiosity of the children. This helps in keeping them engaged and motivated to participate actively in the learning process.

**B. Inclusive in nature:** The group activity should be designed in a way that encourages the participation of all students and promotes inclusivity. It should provide equal opportunities for every

student to contribute and learn from the activity.

**C. Cost effectiveness:** While planning a group activity, it is important to consider the resources required and ensure that it is cost-effective. This helps in making the activity feasible and manageable within the available resources.

Therefore, the correct option is (1) A, B, and C.

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

**Explanation:** The option that would be least effective in attaining the desired objective of sensitizing students on the conservation of trees is:

(4) Visiting a mill to show storage of logs of wood.

While visiting a mill to show the storage of logs of wood might provide students with an understanding of the process of logging and wood storage, it does not directly address the objective of sensitizing them on the conservation of trees. This activity focuses more on the industrial aspect and may not create a direct connection to the importance of tree conservation.

On the other hand, options (1), (2), and (3) are more likely to be effective in attaining the objective of sensitizing students on conservation:

- Encouraging students to plant a tree and take care of it promotes a hands-on approach to tree conservation.
- Organizing a role play on forest conservation allows students to actively engage in the topic and understand the importance of preserving trees.
- Telling the story of the 'Chipko Movement' and asking questions helps students learn about real-life instances of tree conservation and encourages them to think critically about the subject.

Therefore, option (4) would be the least effective in achieving the desired objective of sensitizing students on tree conservation.

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

**Explanation:** The student-centered approaches in teaching-learning of EVS (Environmental Studies) from the given options are C.

**Integrated approach:** An integrated approach involves integrating different subjects or topics within the EVS curriculum. It focuses on the interconnectedness of various environmental issues, encouraging students to explore and understand the relationships between different aspects of the environment. This approach promotes active learning, critical thinking, and a holistic

understanding of environmental concepts.

And option D is Process-oriented approach:

A process-oriented approach emphasizes the process of learning rather than just the final outcome. It focuses on engaging students in active exploration, investigation, and inquiry-based activities. This approach encourages students to ask questions, seek answers, and engage in hands-on experiences to develop a deep understanding of the concepts and processes related to the environment.

Therefore, the correct option is (3) C and D.

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

**Explanation:** Values are an integral part of our behavioral system and are associated with both affective (emotional) and cognitive (thinking) aspects. They encompass our beliefs, principles, and ideals that guide our actions and choices. Affective values are related to emotions, attitudes, and feelings, while cognitive values involve our thoughts, knowledge, and understanding of what is right and wrong, desirable and undesirable. Together, affective and cognitive values shape our behavior and decision-making processes, influencing how we interact with others and the world around us.

The correct option is option (4) Affective and cognitive both.

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

**Explanation:** The nature of EVS (Environmental Studies) can be best described as:

(1) A, B, and C

**A. It integrates several disciplines:** EVS is an interdisciplinary subject that draws knowledge and concepts from various disciplines such as science, social studies, geography, biology, ecology, and more. It explores the interconnectedness of the environment, society, and human beings, integrating knowledge from different fields.

**B. It is child-centered:** EVS emphasizes the active involvement and participation of children in the learning process. It focuses on the interests, experiences, and perspectives of the learners, allowing them to engage in meaningful and relevant experiences related to their environment.

**C. It is experiential:** EVS promotes experiential learning, where students learn by engaging in hands-on activities, field trips,

observations, experiments, and real-life experiences. It encourages students to explore their environment, conduct investigations, and make connections between their learning and the real world.

Therefore, the correct option is (1) A, B, and C.

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

**Explanation:** From the words given below, the three options that describe 'Environment' are:

**A. Flora and fauna:** This option relates to the living components of the environment, including plants (flora) and animals (fauna).

**B. Biotic and Abiotic:** This option refers to the components of the environment categorized as either biotic (living organisms) or abiotic (non-living factors such as air, water, soil, etc.).

**C. Social and Cultural:** This option pertains to the human aspects of the environment, including social interactions, cultural practices, and their influence on the environment.

Therefore, the correct option is (2) A, B, and C.

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

**Explanation:** The correct option is: (3) going beyond the textbooks.

Linking classroom experiences with real-life experiences outside the classroom in the EVS teaching-learning process involves going beyond the reliance solely on textbooks. It implies incorporating real-world examples, situations, and experiences into the learning process, which may extend beyond the content covered in textbooks. This approach helps students connect what they learn in the classroom to the world around them, making the learning experience more meaningful, relevant, and applicable to their daily lives. It encourages critical thinking, problem-solving, and a deeper understanding of environmental concepts beyond the limited scope of the curriculum or specific grade level.

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

**Explanation:** The aim of including "Survey and write" in some chapters of the EVS (Environmental Studies) textbook for grade 5 is: (1) giving opportunities to students to explore and learn.

The inclusion of "Survey and write" activities in the textbook aims to provide students with opportunities to explore the topics further, conduct surveys or investigations, and actively engage in the learning process. Through these activities,

students are encouraged to gather information, analyze data, and write about their findings or observations. This approach promotes active learning, critical thinking, and a deeper understanding of the subject matter by involving students in hands-on experiences and encouraging them to actively participate in the learning process.

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

**Explanation:** Among the given options, an effective strategy of EVS (Environmental Studies) is: (4) Demonstration

While each strategy has its merits, a demonstration can be an effective strategy in EVS as it allows students to observe and experience real-life examples or processes related to environmental concepts. Through a demonstration, the teacher can visually and practically showcase the topic, such as demonstrating a scientific experiment, showing the effects of pollution, or explaining the functioning of a natural ecosystem. This hands-on approach helps students to better understand complex concepts, engage their senses, and make connections between theoretical knowledge and practical applications.

Other strategies like practical activities, role plays, and lectures also have their own value in the EVS teaching-learning process, but a demonstration is particularly effective in providing a tangible and visual representation of environmental phenomena, making it easier for students to grasp and retain the information.

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

**Explanation:** The approach of teaching-learning of EVS (Environmental Studies) that uses different skills to learn new things is: (4) Activity Approach

The activity approach in EVS involves engaging students in hands-on activities, experiments, field trips, and practical experiences to learn new concepts and acquire skills. This approach emphasizes active participation and involvement of students in the learning process. By actively engaging in various activities, students develop multiple skills such as observation, experimentation, data collection and analysis, critical thinking, problem-solving, communication, and collaboration. These skills are essential for understanding and exploring environmental concepts, as well as for developing a holistic understanding of the inter-relationships between different aspects of the environment.

While the other approaches mentioned (conceptual approach, process approach, and integrated approach)

also have their own significance in EVS teaching-learning, the activity approach specifically emphasizes the use of different skills through hands-on activities to enhance the learning experience and foster a deeper understanding of the subject.

### Language: English

#### 91. Option (1) is correct.

**Explanation:** The world is facing the biggest health threat due to (3) climate change.

According to the passage, climate change is referred to as the single biggest health threat facing humanity. The World Health Organization (WHO) has identified climate change as a significant challenge, with rising temperatures, extreme weather events, & the loss of biodiversity impacting human health. The passage highlights the growing number of extremely hot days, the health impacts of heatwaves, the risks of infectious diseases and malnutrition, and the effects of climate-related disasters on mental health. Therefore, climate change is identified as the primary factor contributing to the biggest health threat in the world.

#### 92. Option (2) is correct.

**Explanation:** According to the passage, according to the World Economic Forum, extreme heat waves will (2) lead to a huge loss of life.

The passage mentions that extreme heat waves are becoming more common, with their health impacts being tremendous. It provides an example of searing heat sweeping across Canada and North America in 2021, claiming over 500 lives. Additionally, the World Economic Forum estimates 250,000 annual losses of life worldwide from 2030, with intensifying exposure to heat, infectious diseases, and malnutrition caused by climate change. Therefore, the passage indicates that extreme heat waves will result in a significant loss of life.

#### 93. Option (3) is correct.

**Explanation:** According to the passage, air pollution, which annually claims millions of lives, is mainly caused by (3) combustion of fossil fuels.

The passage states that air pollution is caused by the combustion of fossil fuels like coal and diesel. It mentions that these fuels contribute to air quality decline, leading to respiratory diseases and impacting millions of people worldwide, including those struggling with asthma. Additionally, the passage highlights that the combustion of fossil fuels is also a leading factor of global warming. Therefore, based on

the information provided, the main cause of air pollution mentioned in the passage is the combustion of fossil fuels.

#### 94. Option (1) is correct.

**Explanation:** It is mentioned in passage 1 that, 'The number of extremely hot days worldwide—when the temperature breaches 50°C— has doubled since the 1980s.' Hence, statement (1) which states that the number of extremely hot days have trebled, is not correct.

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

**Explanation:** The correct answer is: (3) Both A and B are true.

According to the passage, intense exposure to heat can cause malnutrition. The World Economic Forum estimates annual losses of life worldwide from 2030 due to intensifying exposure to heat, infectious diseases, and malnutrition caused by climate change.

The passage also suggests that adopting a plant-based diet is one of the prescriptions to mitigate climate impacts on health. It is mentioned that experts emphasize personal changes like adopting a plant-based diet as a way to reduce climate effects.

Therefore, both statements A and B are true based on the information provided in the passage.

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

**Explanation:** The word "tremendous" in paragraph 1 means the same as: (3) 'huge'

The word "tremendous" is used to describe the health impacts of extreme heatwaves caused by climate change. It signifies that the health impacts are significant, substantial, or immense. In the given options, "huge" best captures the meaning of "tremendous" in this context.

#### 97. Option (2) is correct.

**Explanation:** The word opposite in meaning to the word "experts" as used in paragraph 3 is: (2) laymen. The word "experts" refers to individuals who have specialized knowledge, skills, and experience in a particular field. They are considered knowledgeable and authoritative. In contrast, "laymen" refers to people who do not have specialized knowledge or expertise in a specific field. They are considered non-experts or individuals without professional qualifications in that particular area. Therefore, "laymen" is the opposite in meaning to "experts" in this context.

#### 98. Option (4) is correct.

**Explanation:** The word "extreme" in paragraph 2, line 2 is an: (4) Adjective

In the given context, "extreme" describes the nature or quality of the health impacts caused by climate change. It modifies the noun "health impacts" and provides information about the degree or intensity of those impacts. As an adjective, it describes and qualifies a noun, which is the function it serves in this sentence.

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

**Explanation:** The word "respiratory" in the phrase "respiratory diseases" in paragraph 2 is used as an: (4) Adjective

In the given context, "respiratory" describes the type of diseases that impact individuals. It modifies the noun "diseases" and provides information about the nature or characteristic of those diseases. As an adjective, it qualifies or describes a noun, which is the function it serves in this sentence.

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

**Explanation:** According to the poem, Winter is called the king of showmen because it: (3) creates many delightful figures.

The lines "Turning tree trunks into snow men" and "And spreading sugar over lakes" suggest that Winter transforms ordinary objects into delightful figures, such as snowmen and frosted landscapes. Therefore, Winter is described as the king of showmen because it brings about these creative and visually appealing transformations.

#### 101. Option (2) is correct.

**Explanation:** The activity mentioned in the poem is: (2) People catching snowflakes on tongues

The line "That's the season to be young, Catching snowflakes on your tongue!" suggests that one of the activities during winter is catching snowflakes on one's tongue.

#### 102. Option (3) is correct.

**Explanation:** The image of "stumps turning into snowmen" appeals to our sense of: (3) sight.

The image evokes a visual representation of tree stumps being transformed into snowmen, which is a visual perception or sense.

#### 103. Option (3) is correct.

**Explanation:** The streets look slushy when (3) the snow starts melting.

In the poem, it is mentioned that snow is snowy when it's snowing, but it becomes slushy when it's going. This implies that the streets look slushy when the snow starts melting.

#### 104. Option (3) is correct.

**Explanation:** The figure of speech used in the line "winter is the king of showmen" is: (3) Personification. Personification is a figure of speech in which an inanimate object or



abstract concept is given human qualities or attributes. In this line, winter is personified as a king, emphasizing its grandeur and ability to captivate and entertain.

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

**Explanation:** The literary device used in "spreading sugar" in line number 4 is: (3) Alliteration.

Alliteration is the repetition of consonant sounds at the beginning of neighboring words. In this line, the repetition of the "s" sound in "spreading sugar" creates an alliterative effect, adding emphasis and musicality to the line.

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

**Explanation:** The statement "a child's brain contains special language learning mechanisms at birth" is attributed to Noam Chomsky. Therefore, the correct answer is (1) Chomsky. Noam Chomsky is a renowned linguist who proposed the theory of Universal Grammar, which suggests that humans have an innate ability to acquire language and that the brain is pre-wired with specific language learning mechanisms.

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

**Explanation:** When the teacher refers to the rules governing the structure and sequence of speech sounds in their classes, they are emphasizing on (1) Phonology. Phonology is the branch of linguistics that deals with the study of the sounds of a language and their systematic organization, including phonemes, phonological rules, and phonological patterns. It focuses on the sound patterns and phonetic properties of speech sounds in a particular language.

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

**Explanation:** This statement is directly associated with (3) Piaget. Jean Piaget was a Swiss psychologist known for his theory of cognitive development. According to Piaget, language development is just one aspect of a child's overall intellectual development, which encompasses various cognitive processes such as perception, memory, reasoning, and problem-solving. Piaget's theory emphasizes the interaction between a child's biological maturation and their experiences in the environment, highlighting the holistic nature of intellectual development.

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

**Explanation:** The correct sequence while using the imitation method is: (2) Perception—Imitation—Drill—Feedback

In the imitation method, the sequence starts with perceiving the target model or example, followed by

attempting to imitate or reproduce the target, then practicing through drill exercises, and finally receiving feedback on the performance. This sequence allows for observation, practice, and feedback to enhance learning and improve skills.

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

**Explanation:** Speaking is primarily the function of the lingual sense or the sense of language and speech. It involves the production of sounds and the use of oral communication. The lingual sense encompasses the ability to perceive, articulate, and comprehend speech and language. While the other senses such as visual, auditory, and tactile senses contribute to various aspects of communication, the lingual sense specifically relates to the production and expression of speech. Therefore, option (2) Lingual sense is the most appropriate answer.

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

**Explanation:** The concept of Universal Grammar is associated with Noam Chomsky. Chomsky proposed the idea of Universal Grammar as a theory that suggests that all humans are born with an innate ability to acquire language. According to Chomsky, there are universal linguistic principles and structures that underlie all languages, and these principles are hard-wired into the human brain. Universal Grammar provides a framework for understanding how children acquire language and why certain language patterns are common across different languages. Therefore, the correct answer is option (3) Chomsky.

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

**Explanation:** In the given scenario, where the teacher is focusing on phonemes and different structures to be mastered by the learners, the teacher is likely influenced by the Structural Approach.

The Structural Approach to language learning emphasizes the mastery of phonemes (speech sounds) and the grammatical structures of a language. It focuses on teaching learners the underlying structure of the language through explicit instruction and practice. The goal is to help learners understand and produce sentences that follow the rules and patterns of the target language.

The other options mentioned - Functional Approach, Cognitive Approach, and Lexical Approach - also have their own focuses and methodologies in language teaching, but they may not be directly

related to the explicit emphasis on phonemes and structures as described in the scenario. Therefore, the most appropriate answer is option (3) Structural Approach.

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

**Explanation:** When children transition from using word-gesture combinations to producing two-word utterances like "mommy shoe," "go car," "more cookies," etc., it is an example of Telegraphic speech.

Telegraphic speech refers to a stage of language development where children begin to combine words in a simplified manner, typically using only essential words and omitting function words (such as articles, prepositions, and auxiliary verbs) and non-essential grammatical markers. The resulting utterances resemble telegrams or shortened messages, hence the term "telegraphic speech."

During this stage, children focus on conveying the main content or meaning of their message using key nouns, verbs, and adjectives while disregarding other grammatical elements. It is a significant milestone in language development that occurs after the one-word stage but before the acquisition of more complex grammatical structures.

Therefore, the correct answer is option (1) Telegraphic speech.

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

**Explanation:** The initiative that helps students learn about the remarkable unity of most of the major Indian languages is the "Ek Bharat Shreshtha Bharat" initiative.

Ek Bharat Shreshtha Bharat is a program launched by the Government of India with the aim of promoting cultural integration and understanding among the states and union territories of India. It focuses on fostering a sense of unity in diversity by encouraging interactions, exchanges, and learning opportunities between different regions of the country.

Through this initiative, students are provided with platforms and activities that enable them to explore and appreciate the linguistic diversity of India. They learn about the similarities and commonalities in language, culture, traditions, and heritage across different states and languages. This helps in fostering a sense of national unity and promoting respect for all Indian languages.

Therefore, the correct answer is option (2) Ek Bharat Shreshtha Bharat.

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

**Explanation:** The encoder in a communication system is responsible for converting the information

or message into a suitable format for transmission. Among the options provided, the encoder is represented by the "Sender" (option 1). The sender takes the message and transforms it into a format that can be transmitted through the communication channel to reach the receiver.

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

**Explanation:** The function of language involved in the given situation, where an individual expresses their feelings, emotions, and ideas, is the "Expressive" function (option 1). The expressive function of language focuses on personal expression, allowing individuals to convey their thoughts, experiences, and emotions through language. It serves as a means of self-expression and communication of one's subjective experiences.

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

**Explanation:** The technique that can be used to teach language pronunciation is reading aloud. Reading aloud helps learners practice and improve their pronunciation by actively speaking the words and sentences in the target language.

It allows them to focus on correct pronunciation, intonation, and rhythm. Additionally, reading aloud also helps learners develop their listening skills and improve their overall fluency in the language. While singing songs and reciting poems can also contribute to pronunciation practice, reading aloud specifically targets pronunciation skills. Writing stories, on the other hand, focuses more on developing writing skills rather than pronunciation. So, option (4), writing stories cannot help in teaching language pronunciation.

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

**Explanation:** When infants repeat consonant-vowel combinations, often in long strings such as 'bababababa' and 'nananananana', this is an example of (2) Babbling. Babbling is a stage of language development in infants where they produce repetitive syllables using various consonant and vowel sounds. It is a precursor to speech and occurs around 6 to 9 months of age. During the babbling stage, infants' experiment with different sounds and begin to develop the motor skills necessary for producing speech sounds.

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

**Explanation:** The statement "Language learning is simply a matter of stimulus-response association acquired largely through pattern practice, mimicry, and

memorization" is associated with (1) Behaviourist's theory. This perspective, often attributed to behaviorist psychologists such as B.F. Skinner, suggests that language acquisition is primarily a result of conditioning and reinforcement. It emphasizes the importance of imitation and repetition in language learning, with an emphasis on observable behaviors and responses to stimuli. According to this theory, language is acquired through external factors rather than innate cognitive abilities or internal mental processes.

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

**Explanation:** The activity that is not appropriate for developing reading skills is (4) Use of abbreviation. Developing reading skills involves understanding and interpreting written text, and activities like reading aloud, scanning a text, and reading for inference are directly related to improving reading comprehension and fluency. However, the use of abbreviations focuses more on shorthand or condensed forms of language, which may not contribute significantly to the development of reading skills in terms of comprehension and understanding of full written texts.

### Language: Hindi

**121. विकल्प (2) उचित है।**

**व्याख्या—**मार्ग में व्यक्ति इच्छा पूर्ति में लगा हुआ है। अतः सबसे उपयुक्त उत्तर विकल्प इच्छा पूर्ति है।

**122. विकल्प (2) उचित है।**

**व्याख्या—**परिच्छेद में कहा गया है कि इच्छाएँ कभी पूरी नहीं होती क्योंकि एक के बाद एक नई इच्छाएँ जन्म लेती रहती हैं। अतः सबसे उपयुक्त उत्तर विकल्प है एक के बाद एक नई इच्छाएँ जन्म लेती हैं।

**123. विकल्प (4) उचित है।**

**व्याख्या—**गद्यांश के अनुसार जीवन के विनाश का कारण काम, क्रोध, लोभ और मोह हैं। दिए गए विकल्पों में से जो विनाश का कारण नहीं बताया गया है वह संतोष है। इसलिए, सबसे उपयुक्त उत्तर विकल्प संतोष है।

**124. विकल्प (4) उचित है।**

**व्याख्या—**गद्यांश के अनुसार मनुष्य का शत्रु लालच है। भारत के ऋषि-मुनियों ने लोभ को मनुष्य का शत्रु कहा है। इसलिए, सबसे उपयुक्त उत्तर विकल्प लालच है।

**125. विकल्प (3) उचित है।**

**व्याख्या—**गद्यांश के अनुसार केवल वही मनुष्य महान बन सकते हैं जो हर स्थिति में संतुष्ट रहते हैं। गद्यांश में कहा गया है कि जीवन में सफलता प्राप्त करने के लिए संतुष्टि को एक आवश्यक गुण माना जाता है और संतुष्टि के

मार्ग पर चलकर ही कोई महान व्यक्ति बन सकता है। अतः सबसे उपयुक्त उत्तर विकल्प है जो हर स्थिति में संतुष्ट रहते हैं।

**126. विकल्प (2) उचित है।**

**व्याख्या—**'मुक्ति' का विलोम शब्द है (2) बंधन—मुक्ति का तात्पर्य स्वतंत्रता या किसी चीज से मुक्ति है, जबकि बंधन का तात्पर्य किसी संबंध, प्रतिबंध या सीमा से है। इसलिए, सबसे उपयुक्त उत्तर विकल्प बांध है।

**127. विकल्प (2) उचित है।**

**व्याख्या—**सही उत्तर है (2) ऐच्छिक।

**128. विकल्प (3) उचित है।**

**व्याख्या—**सही उत्तर है—कर्मधारय। महापुरुष में कर्मधारय समास है। जिसमें विशेषण विशेष्य बताया जाए वह कर्मधारय समास होता है।

**129. विकल्प (3) उचित है।**

**व्याख्या—**सही उत्तर है—सच्चा।

**130. विकल्प (2) उचित है।**

**व्याख्या—**दिए गए गद्यांश के आधार पर, कविता में उल्लिखित मनुष्य का गुण है—शक्तिवान।

**131. विकल्प (1) उचित है।**

**व्याख्या—**दिए गए गद्यांश के आधार पर, 'पत्थर पानी बन जाता है' वाक्यांश का अर्थ यह है—असंभव को संभव बनाना।

**132. विकल्प (2) उचित है।**

**व्याख्या—**दिए गए गद्यांश के आधार पर मनुष्य के भीतर छुपे गुणों की तुलना की गई है—मेहंदी के पत्तों में छुपी लाली।

**133. विकल्प (2) उचित है।**

**व्याख्या—**दिए गए गद्यांश के आधार पर, सबसे उपयुक्त उत्तर होगा—शांत हो जाती हैं।

**134. विकल्प (4) उचित है।**

**व्याख्या—**दिए गए गद्यांश के आधार पर, सबसे उपयुक्त उत्तर विकल्प है—कर्मठ होना होगा।

**135. विकल्प (2) उचित है।**

**व्याख्या—**दिए गए गद्यांश के आधार पर, प्रश्न का सबसे उपयुक्त उत्तर होगा—दीपक की बाती।

इस अनुच्छेद में मनुष्य के भीतर गुणों और छिपी हुई रोशनी का उल्लेख है, जो दीपक और उसकी बाती का एक प्रतीकात्मक संदर्भ सुझाता है।

**136. विकल्प (1) उचित है।**

**व्याख्या—**यह कथन 'बच्चे के मस्तिष्क में जन्म से ही एक विशेष भाषा सीखने का तंत्र होता है' नोम चॉम्स्की से निकटता से जुड़ा हुआ है। चॉम्स्की, एक प्रमुख भाषाविद् और संज्ञानात्मक वैज्ञानिक, ने सार्वभौमिक व्याकरण की अवधारणा का प्रस्ताव रखा, जो बताता है कि मनुष्य भाषा अधिग्रहण की जन्मजात क्षमता के साथ पैदा होते हैं। उन्होंने तर्क दिया कि बच्चों के दिमाग में एक भाषा अधिग्रहण

उपकरण (एलएडी) होता है, जो उन्हें भाषाई सिद्धांतों और संरचनाओं का एक सेट प्रदान करता है जो भाषा सीखने की सुविधा प्रदान करता है।

### 137. विकल्प (1) उचित है।

**व्याख्या**—प्रदान किए गए संदर्भ के आधार पर, शिक्षक संभवतः भाषण ध्वनियों की संरचना और क्रम को नियंत्रित करने वाले नियमों पर जोर दे रहा है। यह विषय ध्वन्यात्मकता के क्षेत्र के अंतर्गत आता है, जो मानव भाषण की भौतिक ध्वनियों का अध्ययन है, जिसमें उनके उत्पादन, धारणा और ध्वनिक गुण शामिल हैं। इसलिए, सही उत्तर होगा (1) ध्वन्यात्मकता। सिंटेक्स (वाक्य संरचना का अध्ययन), आकृति विज्ञान (शब्द निर्माण का अध्ययन), और अर्थ विलेज (एक असंबंधित शब्द) सीधे भाषण ध्वनियों को नियंत्रित करने वाले नियमों से संबंधित नहीं हैं।

### 138. विकल्प (4) उचित है।

**व्याख्या**—यह कथन सीधे तौर पर लेव वायगोत्स्की से संबंधित है। वायगोत्स्की एक रूसी मनोवैज्ञानिक और दार्शनिक थे जिन्होंने बच्चे के संज्ञानात्मक विकास में सामाजिक और सांस्कृतिक कारकों के महत्व पर जोर दिया। उन्होंने सामाजिक-सांस्कृतिक विकास के सिद्धांत का प्रस्ताव रखा, जो बताता है कि भाषा और सामाजिक संपर्क बच्चे के बौद्धिक विकास को आकार देने में महत्वपूर्ण भूमिका निभाते हैं। वायगोत्स्की के अनुसार, भाषा केवल एक अलग पहलू नहीं है, बल्कि बच्चे के समग्र बौद्धिक विकास का एक अभिन्न अंग है, क्योंकि यह विचार के निर्माण और ज्ञान के अधिग्रहण में मदद करती है। इसलिए, सही उत्तर (4) वायगोत्स्की होगा।

### 139. विकल्प (3 और 4) उचित है।

**व्याख्या**—अनुकरण विधि के प्रयोग के संबंध में सही क्रम होगा—

(3) अवधारणात्मक ड्रिल सिमुलेशन प्रतिक्रिया (4) अवधारणात्मक फीडबैक ड्रिल सिमुलेशन अनुकरण पद्धति में, अनुक्रम में आम तौर पर अवधारणात्मक अभ्यास, अनुकरण और प्रतिक्रिया शामिल होती है। सबसे पहले, शिक्षार्थी एक अवधारणात्मक अभ्यास में संलग्न होता है, जहाँ वे लक्ष्य व्यवहार या कौशल का निरीक्षण और अनुभव करते हैं। फिर, वे एक अनुकरण में संलग्न होते हैं, जहाँ वे अपने द्वारा देखे गए व्यवहार या कौशल की नकल करने या दोहराने का प्रयास करते हैं। अंत में, उन्हें फीडबैक प्राप्त होता है, जो उनके प्रदर्शन के आधार पर मार्गदर्शन, सुधार और सुदृढीकरण प्रदान करता है। तो, सही अनुक्रम होगा (3) अवधारणात्मक ड्रिल सिमुलेशन फीडबैक, उसके बाद (4) अवधारणात्मक फीडबैक ड्रिल सिमुलेशन। विकल्प (1) प्रत्यक्षदर्शी सिमुलेशन फीडबैक ड्रिल और (2) प्रत्यक्षदर्शी सिमुलेशन ड्रिल फीडबैक

अनुकरण पद्धति के विशिष्ट अनुक्रम का प्रतिनिधित्व नहीं करते हैं।

### 140. विकल्प (2) उचित है।

**व्याख्या**—मेरी पिछली प्रतिक्रिया में भ्रम के लिए खेद है।

सही उत्तर है—पढ़ने (बोलने) के कार्य में मुख्य रूप से भाषाई अर्थ शामिल होता है। पढ़ना और बोलना मुख्यतः भाषाई गतिविधियाँ हैं। दृश्य इंद्रिय पढ़ने में शामिल होती है क्योंकि यह हमें लिखित पाठ को समझने और संसाधित करने की अनुमति देती है, लेकिन भाषा की व्याख्या और समझ भाषाई इंद्रिय के माध्यम से होती है। श्रवण इंद्रिय पढ़ने के बजाय बोली जाने वाली भाषा को सुनने और समझने से अधिक निकटता से संबंधित है। स्पर्श की भावना पढ़ने या बोलने में सीधे तौर पर शामिल नहीं होती है, हालाँकि कुछ मामलों में यह द्वितीयक भूमिका निभा सकती है, जैसे स्पर्श द्वारा पढ़ने के लिए ब्रेल का उपयोग करते समय।

### 141. विकल्प (3) उचित है।

**व्याख्या**—सार्वभौमिक व्याकरण की अवधारणा मुख्य रूप से (3) चॉम्स्की से जुड़ी है। सार्वभौमिक व्याकरण एक प्रसिद्ध भाषाविद् और संज्ञानात्मक वैज्ञानिक नोम चॉम्स्की द्वारा प्रस्तावित एक भाषाई सिद्धांत है। चॉम्स्की के अनुसार, सार्वभौमिक व्याकरण उस सहज भाषाई ज्ञान या सिद्धांतों को संदर्भित करता है जो सभी मनुष्यों के पास होते हैं, जो उन्हें भाषा हासिल करने और समझने की अनुमति देते हैं। चॉम्स्की का तर्क है कि एक सार्वभौमिक अंतर्निहित संरचना या नियमों का समूह है जो सभी भाषाओं के लिए सामान्य है, और यह सहज ज्ञान बच्चों को सहजता से भाषा सीखने और उत्पन्न करने में सक्षम बनाता है। यह अवधारणा बी.एफ. स्किनर जैसे व्यवहारवादी सिद्धांतों के विपरीत है, जो पर्यावरणीय कंडीशनिंग के माध्यम से भाषा सीखने पर जोर देते हैं। पियागेट और वायगोत्स्की को संज्ञानात्मक विकास में उनके योगदान के लिए जाना जाता है, लेकिन वे सीधे तौर पर सार्वभौमिक व्याकरण की अवधारणा से जुड़े नहीं हैं।

### 142. विकल्प (3) उचित है।

**व्याख्या**—दिए गए परिदृश्य में शिक्षक संरचनात्मक दृष्टिकोण से प्रभावित होता है। भाषा शिक्षण का संरचनात्मक दृष्टिकोण भाषा सीखने की नींव के रूप में स्वरों (किसी भाषा में विशिष्ट ध्वनियाँ) और विभिन्न संरचनाओं (व्याकरण नियम और वाक्य पैटर्न) को समझने के महत्व पर जोर देता है। यह भाषा में शिक्षार्थियों की सटीकता और दक्षता विकसित करने के लिए भाषा संरचनाओं के विश्लेषण और अभ्यास पर केंद्रित है। स्वरों और विभिन्न संरचनाओं पर अधिक ध्यान देकर, शिक्षक छात्रों को भाषा के तत्वों और उन्हें कैसे व्यवस्थित किया जाता है, इसकी अच्छी

समझ विकसित करने में मदद करने के लिए संरचनात्मक दृष्टिकोण के सिद्धांतों का पालन कर रहा है।

कार्यात्मक दृष्टिकोण वास्तविक जीवन के संचार संदर्भ में भाषा सिखाने पर केंद्रित है, जो सार्थक संचार के लिए भाषा के कार्यात्मक उपयोग पर जोर देता है। संज्ञानात्मक दृष्टिकोण भाषा सीखने में शामिल मानसिक प्रक्रियाओं पर ध्यान केंद्रित करता है और समझ, स्मृति और समस्या-समाधान पर जोर देता है। लेक्सिकल दृष्टिकोण भाषा की केंद्रीय इकाइयों के रूप में शब्दावली और सहसंयोजन सिखाने पर ध्यान केंद्रित करता है, संचार में शब्दों और भाषा के हिस्सों के महत्व पर जोर देता है। ये दृष्टिकोण दिए गए परिदृश्य में स्वरों और संरचनाओं पर शिक्षक के जोर से सीधे तौर पर संबंधित नहीं हैं।

### 143. विकल्प (1) उचित है।

**व्याख्या**—आपने जो उदाहरण दिया है, 'माँ जूता, दादी साथ, मैं, बकबक या बड़बड़ाहट का एक उदाहरण है। चौटर भाषा के विकास के प्रारंभिक चरण को संदर्भित करता है जिसमें बच्चे शब्दांशों या सरल शब्दों की श्रृंखला बनाते हैं जिनकी स्पष्ट व्याकरणिक संरचना या अर्थ नहीं हो सकता है। इस स्तर पर, बच्चे भाषा के साथ प्रयोग कर रहे हैं और अपने भाषण उत्पादन कौशल का अभ्यास कर रहे हैं। आपके द्वारा बताए गए उदाहरण भाषा के विकास के शुरुआती चरणों के विशिष्ट हैं जब बच्चे शब्दों का संयोजन करना शुरू कर रहे हैं लेकिन अभी तक व्याकरण या वाक्य संरचना में महारत हासिल नहीं कर पाए हैं। यह भाषा अधिग्रहण का एक स्वाभाविक हिस्सा है और बच्चे के भाषा विकास में एक महत्वपूर्ण मील का पत्थर है। यह दो-अक्षर संक्षिप्ताक्षरों, कोजोन्स (जिसका स्पेनिश में अर्थ है 'अंडकोष' और भाषा के विकास से असंबंधित है), या रोने से संबंधित नहीं है।

### 144. विकल्प (2) उचित है।

**व्याख्या**—सूचीबद्ध पहलों में से, जिसका उद्देश्य छात्रों को अधिकांश प्रमुख भारतीय भाषाओं की उल्लेखनीय एकता से परिचित कराना है, वह है 'एक भारत श्रेष्ठ भारत' पहल।

(2) एक भारत श्रेष्ठ भारत भारत सरकार द्वारा सांस्कृतिक एकीकरण को बढ़ावा देने और भारत की विविध संस्कृतियों और भाषाओं के बीच एकता की भावना को बढ़ावा देने के उद्देश्य से शुरू किया गया एक कार्यक्रम है। इसका उद्देश्य भारत के विभिन्न राज्यों और क्षेत्रों के लोगों को जोड़ना और उन्हें एक-दूसरे की भाषाओं, परंपराओं और विरासत के बारे में जानने के लिए प्रोत्साहित करना है।

यह पहल विभिन्न राज्यों के लोगों के बीच बातचीत को सुविधाजनक बनाने के लिए विभिन्न गतिविधियों, कार्यक्रमों और विनिमय कार्यक्रमों का आयोजन करती है। इसमें भाषा सीखने के कार्यक्रम, सांस्कृतिक उत्सव, कला प्रदर्शनियाँ और सेमिनार शामिल हैं, जहाँ छात्र



भारत की विविध भाषाई विरासत के बारे में जान सकते हैं और देश में भाषाई विविधता को रेखांकित करने वाली एकता की गहरी समझ हासिल कर सकते हैं।

उल्लिखित अन्य पहल, जैसे स्वच्छ भारत अभियान, सर्व शिक्षा अभियान और डिजिटल भारत अभियान, क्रमशः स्वच्छता और स्वच्छता, सार्वभौमिक शिक्षा और डिजिटल सशक्तिकरण जैसे विभिन्न पहलुओं पर केंद्रित हैं, और विशेष रूप से प्रमुख भारतीय भाषाओं की एकता को लक्षित नहीं करते हैं।

#### 145. विकल्प (2) उचित है।

**व्याख्या**—संचार प्रणालियों के संदर्भ में, एनकोडर सूचना या संदेश को प्रसारण के लिए उपयुक्त प्रारूप में परिवर्तित करने के लिए जिम्मेदार है। यह संचार चैनल पर प्रसारित होने वाले संदेश को तैयार करता है।

इसलिए, दिए गए विकल्पों में—

- (1) **प्रेषक**—प्रेषक वह इकाई है जो संदेश बनाकर और भेजकर संचार शुरू करती है। यह इनपुट जानकारी प्रदान करता है लेकिन आवश्यक रूप से एन्कोडिंग प्रक्रिया निष्पादित नहीं करता है।
- (2) **सिग्नल**—सिग्नल एन्कोडेड संदेश के भौतिक प्रतिनिधित्व है जो संचार चैनल पर प्रसारित होते हैं। वे जानकारी को प्रेषक से प्राप्तकर्ता तक ले जाते हैं लेकिन एन्कोडिंग प्रक्रिया नहीं करते हैं।
- (3) **चैनल**—चैनल उस माध्यम को संदर्भित करता है जिसके माध्यम से एन्कोडेड संदेश प्रसारित होता है, जैसे वायर्ड या वायरलेस कनेक्शन। यह एन्कोडिंग प्रक्रिया निष्पादित नहीं करता है।
- (4) **रिसीवर**—रिसीवर वह इकाई है जो प्रेषित संदेश प्राप्त करता है और मूल जानकारी प्राप्त करने के लिए इसे डिकोड करता है। यह एन्कोडिंग प्रक्रिया निष्पादित नहीं करता है।

दिए गए विकल्पों के आधार पर, एनकोडर का स्पष्ट रूप से उल्लेख नहीं किया गया है। हालाँकि, यह आमतौर पर संचार प्रणाली में प्रेषक और चैनल के बीच स्थित होता है।

#### 146. विकल्प (1) उचित है।

**व्याख्या**—दी गई स्थिति में, भाषा का जो कार्य शामिल है वह है (1) अभिव्यक्ति।

भाषा का अभिव्यक्ति कार्य व्यक्ति की भावनाओं, भावनाओं, विचारों और जीवन के अनुभवों को व्यक्त करने और व्यक्त करने की क्षमता से संबंधित है। इसमें भाषा को आत्म-अभिव्यक्ति के साधन के रूप में उपयोग करना शामिल है, जिससे व्यक्तियों को अपनी आंतरिक स्थिति को संप्रेषित करने और अपने व्यक्तिगत

दृष्टिकोण को दूसरों के साथ साझा करने की अनुमति मिलती है।

दिए गए संदर्भ में, व्यक्ति स्वयं को अभिव्यक्त करने, अपनी भावनाओं, भावनाओं, विचारों और जीवन के अनुभवों को संप्रेषित करने के लिए भाषा का उपयोग कर रहे हैं। भाषा का यह कार्य व्यक्तियों को अपनी आंतरिक दुनिया को स्पष्ट करने और भावनात्मक और व्यक्तिगत स्तर पर दूसरों के साथ जुड़ने में सक्षम बनाता है।

#### 147. विकल्प (4) उचित है।

**व्याख्या**—दिए गए विकल्पों में से वह तकनीक जिसका उपयोग भाषा का उच्चारण सिखाने के लिए नहीं किया जा सकता वह है (4) कहानी लिखना।

गाना गाना (1), कविता पाठ (2), और सस्वर पाठ (3) सभी प्रभावी तकनीकें हैं जिनका उपयोग भाषा उच्चारण सिखाने के लिए किया जा सकता है। इन तकनीकों में लय, स्वर-शैली और शब्दों और वाक्यांशों के सही उच्चारण पर ध्यान केंद्रित करना शामिल है। हालाँकि, कहानी लेखन (4) में सीधे तौर पर भाषा या उच्चारण का मौखिक उत्पादन शामिल नहीं है। कहानी लेखन मुख्य रूप से लेखन कौशल, रचनात्मकता विकसित करने और विचारों को एक सुसंगत कथा में व्यवस्थित करने पर केंद्रित है। हालाँकि यह अप्रत्यक्ष रूप से भाषा कौशल और समग्र दक्षता में सुधार कर सकता है, लेकिन यह विशेष रूप से उच्चारण सिखाने के लिए लक्षित नहीं है।

#### 148. विकल्प (2) उचित है।

**व्याख्या**—आपने जो उदाहरण दिया है, जिसमें शिशु व्यंजन खुद को 'बाबा' या 'ना ना ना' जैसे स्वरों के मिश्रण के लंबे स्वरों में व्यक्त करते हैं, अक्सर शिशुओं में भाषा के विकास के बबलाने के चरण से जुड़ा होता है। बबलाना लगभग 6 से 9 महीने की उम्र के शिशुओं में देखा जाने वाला एक प्राकृतिक और सामान्य व्यवहार है, जहाँ वे व्यंजन-स्वर संयोजन वाले दोहराव वाले अक्षरों का उत्पादन करते हैं। आपके द्वारा प्रदान किए गए विकल्पों को देखते हुए, सबसे प्रासंगिक विकल्प होगा।

(2) बबलाना  
हालाँकि, यह ध्यान रखना महत्वपूर्ण है कि बबलाना विभिन्न गतिविधियों के दौरान हो सकता है और जरूरी नहीं कि केवल 'बकबक' या 'रोने' के दौरान ही हो। शिशु खेलते समय, ध्वनि खोजते समय या दूसरों के साथ बातचीत करते समय बबल कर सकते हैं। बबलाना भाषण विकास के लिए एक महत्वपूर्ण अग्रदूत के रूप में कार्य करता है क्योंकि शिशु ध्वनियों के साथ प्रयोग करते हैं और विभिन्न स्वर उत्पन्न करना सीखते हैं।

#### 149. विकल्प (1) उचित है।

**व्याख्या**—कथन 'भाषा सीखना आम तौर पर उत्तेजना-प्रतिक्रिया संबंध का मामला है जिसे मॉडल अभ्यास, अनुकरण और याद रखने के माध्यम से हासिल किया जाता है' संबंधित है—

(1) **व्यवहार सिद्धांत**—व्यवहार सिद्धांत में, भाषा सीखने को उत्तेजना-प्रतिक्रिया संबंधों के परिणामस्वरूप देखा जाता है। इस परिप्रेक्ष्य के अनुसार, भाषा अधिग्रहण सुदृढ़ीकरण और कंडीशनिंग की प्रक्रिया के माध्यम से होता है, जहाँ शिक्षार्थी भाषा मॉडल का अनुकरण और अभ्यास करते हैं और सही प्रतिक्रियाओं को याद करते हैं। यह दृष्टिकोण भाषा सीखने और व्यवहार को आकार देने में पर्यावरणीय उत्तेजनाओं और सुदृढ़ीकरण जैसे बाहरी कारकों के महत्व पर जोर देता है।

उल्लिखित अन्य विकल्प, (2) प्रकृतिवादी दृष्टिकोण, (3) संज्ञानात्मक सिद्धांत, और (4) रचनावादी सिद्धांत, कथन के साथ इतनी निकटता से मेल नहीं खाते हैं। प्रकृतिवादी दृष्टिकोण वास्तविक जीवन के संदर्भों में सार्थक भाषा इनपुट के विसर्जन और प्रदर्शन पर जोर देता है। संज्ञानात्मक सिद्धांत भाषा सीखने में स्मृति, ध्यान और समस्या-समाधान जैसी मानसिक प्रक्रियाओं पर ध्यान केंद्रित करता है। रचनावादी सिद्धांत शिक्षार्थी की स्वायत्तता, सक्रिय जुड़ाव और सामाजिक संपर्क के माध्यम से ज्ञान के निर्माण पर जोर देते हैं।

#### 150. विकल्प (4) उचित है।

**व्याख्या**—वह गतिविधि जो पढ़ने के कौशल विकसित करने के लिए उपयुक्त नहीं है—

(4) **संक्षिप्तीकरण का प्रयोग**—संक्षिप्तीकरण का उपयोग पढ़ने के कौशल के विकास में सीधे योगदान नहीं देता है। संक्षिप्तीकरण शब्दों या वाक्यांशों के संक्षिप्त रूप हैं और आमतौर पर संक्षिप्तता और सुविधा के लिए लिखित या मौखिक भाषा में उपयोग किए जाते हैं। हालाँकि संक्षिप्ताक्षरों को समझने और व्याख्या करने के लिए कुछ पढ़ने की आवश्यकता हो सकती है, लेकिन यह कोई मुख्य पढ़ने का कौशल नहीं है। पढ़ने के कौशल को विकसित करने में आम तौर पर सर्वर रीडिंग (विशिष्ट जानकारी के लिए स्कैनिंग), बारीकी से पढ़ना (किसी पाठ के विवरण का विश्लेषण करना और समझना), और निष्कर्ष निकालने के लिए पढ़ना (पाठ में निहित जानकारी को समझना और निष्कर्ष निकालना) जैसी गतिविधियाँ शामिल होती हैं।