

CTET Solved Paper

Paper-2
21st January, 2024

Time: 2 hours 30 mins.

Total Marks: 150

Child Development and Pedagogy

Direction (1-30): Answer the following questions by selecting the correct/most appropriate options.

1. Dyslexia is a — condition which impacts learner's ability to
 - (1) Physiological, socialize with peers
 - (2) sensory, Coordinate body movements
 - (3) emotional, draw pictures
 - (4) neurological, link sounds with symbols
2. **Assertion (A):** Learning from real-life problems and concrete experiences gives the children multiple pathways for learning and retrieving information.
Reason (R): Development is relatively orderly and sequential.
Choose the correct option.
 - (1) (A) is true but (R) is false.
 - (2) Both (A) and (R) are false.
 - (3) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (4) Both (A) and (R) are true but (R) is not the correct explanation of (A).
3. Asking Critical questions such as "how much and in what ways are various gender represented in textbooks and media" would encourage :
 - (1) Reinforcing gender identity
 - (2) Discouraging gender role flexibility
 - (3) Questioning gender stereotypes
 - (4) Strengthening gender
4. **Assertion (A):** In an inclusive classroom, adaptations should be made in learning goals, pedagogical strategies as well as assessment,
Reason (R) : The philosophy of inclusion advocates elimination of all individual differences through pedagogical approaches and assessment.
Choose the correct option.
 - (1) (A) is true but (R) is false.
 - (2) Both (A) and (R) are false.
 - (3) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (4) Both (A) and (R) are true but (R) is not the correct explanation of (A).
5. A teacher notices that one of her students is highly distractable and has trouble paying attention during class. Which of the following strategies would be an effective strategy in helping the student stay focused?
 - (1) Giving a timer to student for self-regulation and time-management,
 - (2) Calling the parents and taking Strict disciplinary action against the student.

- (3) Giving the student repeated tasks to do during class.
 - (4) Strictly telling the student to increase their attention span.
6. **Assertion (A):** Teachers should constantly reflecting their own stereotypes and bias,
Reason (R): Culturally responsive teaching means that teachers are reflective.
Choose the correct option.
 - (1) (A) is true but (R) is false.
 - (2) Both (A) and (R) are false.
 - (3) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (4) Both (A) and (R) are true but (R) is not the correct explanation of (A).
 7. Which of the following process is essential in meaning making of the information received from environment and store it further in memory?
 - (1) Forgetting
 - (2) Retrieval
 - (3) Attention
 - (4) Decay
 8. In which stage of Kohlberg's moral development do children's reasoning revolve around ethics of law?
 - (1) Heteronomous morality
 - (2) Autonomous morality
 - (3) Pre-conventional morality
 - (4) Conventional morality
 9. Which of the following is a core principle of constructivist learning, not with their environment,
 - (1) Students construct their own knowledge through achieve engagement
 - (2) Learning is primarily a passive process that involves receiving and memorizing information.
 - (3) Teachers should provide direct instruction and explicit guidance to students.
 - (4) Learning occurs when students receive correct answer and feedback from teachers.
 10. According to Vygotsky, what is the role of the teacher in facilitating cognitive development ?
 - (1) To allow the student to learn completely independently.
 - (2) To give only those tasks that the student can currently do independently,
 - (3) To provide information and knowledge to the student.
 - (4) To guide and support the student's learning through scaffolding.
 11. Which of the following does not exemplify an inclusive Classroom ?
 - (1) Offering differentiated instruction
 - (2) Encouraging competitive ethos
 - (3) Incorporation of diverse perspectives
 - (4) Following reasonable accommodation

12. An elementary school teacher can strongly influence students' development of academic self-concept by:
- (1) Rewarding autonomy and initiative in students
 - (2) Keeping very low expectations from special students:
 - (3) Keeping very low expectation from all students
 - (4) Punishing autonomy and initiative in students
13. According to Lev-Vygotsky children benefit from the experience of interacting with _____ while working _____ their zone of proximal development.
- (1) the physical environment; within
 - (2) the physical environment; just outside
 - (3) more knowledgeable others; within
 - (4) more knowledgeable others; just outside
14. **Assertion (A):** There is no objectively definable moment when a child enters middle childhood and adolescence.
- Reason (R):** Development is continuous in nature.
- Choose the correct option.
- (1) (A) is true but (R) is false.
 - (2) Both (A) and (R) are false.
 - (3) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (4) Both (A) and (R) are true but (R) is not the correct explanation of (A).
15. In a progressive classroom assessment is :
- (1) Summative
 - (2) Normative
 - (3) Dynamic
 - (4) Objective
16. In order to address the individual differences among, learners, a teacher should :
- (1) consider differences as obvious feature of human diversity
 - (2) implement a rigid and uniform curriculum for all learners
 - (3) acknowledge differences as abnormal and kind of deficit
 - (4) be indifferent towards individual differences
17. Alok shows the following behaviours: Holds head in an awkward position when reading; squinting and rubbing the eye frequently; redness/swelling of eyes; Confusing letters. These can be symptoms of potential :
- (1) Autistic spectrum disorder
 - (2) Communication disorder
 - (3) Visual problems
 - (4) Language comprehension problems
18. Which of the following describes a mastery goal orientation ?
- (1) focus on achieving a high grade for receiving external rewards,
 - (2) focus on avoiding failure or punishment for fear of humiliation.
 - (3) focus on achieving a certain level of performance for competing with others.
 - (4) focus on improving ones skills and understanding of a task.
19. According to Jean Piaget the ability to use symbols for symbols such as letting the letter X stand for an unknown numeral develops during and enables the children to learn.
- (1) formal operational stage; algebra and calculus
 - (2) formal operational stage; conservation and seriation
 - (3) concrete operational stage; algebra and calculus
 - (4) concrete operational stage; conservation and seriation
20. **Assertion (A):** Students are more likely to do well and stay in school if they have emotional attachment to their school and believe that they matter.
- Reason (R) :** Emotions play a significant role in learning
- Choose the correct option.
- (1) (A) is true but (R) is false.
 - (2) Both (A) and (R) are false.
 - (3) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (4) Both (A) and (R) are true but (R) is not the correct explanation of (A).
21. Which of the following best describes the role of the teacher in progressive education ?
- (1) The teacher is responsible for ensuring strict adherence to curriculum standards.
 - (2) The teacher gets the children learn independently and does not interfere in their learning.
 - (3) The teacher is the primary source of knowledge and authority in the classroom.
 - (4) The teacher provides diverse materials for children to experiment and provides scaffolding as and when required.
23. Which of the following statement about adolescence is not correct?
- (a) It is a linear process.
 - (b) It is a complex process.
 - (c) It is a multidimensional process.
 - (d) It takes place uniquely in different cultures,
- (1) (b), (c), (d)
 - (2) (a), (b), (c), (d)
 - (3) (a), (b)
 - (4) (b), (c)
23. Which of the following statement adolescence is not correct ?
- (1) Adolescence is development transition between childhood and adulthood entailing physical, cognitive and psychosocial changes.
 - (2) Children across different cultures usher in and experience adolescence in a similar manner.
 - (3) Adolescence is a social construction.
 - (4) Adolescence is generally considered to begin with puberty - the process that leads to sexual maturity and the ability to reproduce.
24. Work in progress Portfolios are an effective tool for formative assessment because :
- (1) They involve students in the process of assessment
 - (2) They offer insights about the progress of individual students.
 - (3) They focus mainly in the presentation of the final product.
 - (4) They offer tangible evidence of student learning.
25. A middle school teacher wants to enable meaningful learning by helping students make corrections between concepts and real-world applications. Which of the following activities would be an appropriate pedagogical strategy?
- (1) Let the students learn by the method of stimulus-response conditioning.

- (2) Let the students research on a current issue in small groups and present their findings to the class.
- (3) Let the students memorize terms and definitions.
- (4) Let the students complete worksheets with multiple choice questions.
26. Sujata participates eagerly in the dance competition only because she is interested in winning the first prize of cash. Sujata is :
- (1) Mastery-Oriented learner
- (2) Failure-avoiding learner
- (3) Intrinsically motivated
- (4) Extrinsically motivated
27. Which of the following is an example of a question that requires students to analyze information ?
- (1) How does the author use symbolism in "To Kill a Mockingbird"?
- (2) Who is the protagonist of "To Kill a Mockingbird"?
- (3) What is the plot of the novel "To Kill a Mockingbird" ?
- (4) What is the theme of the novel "To Kill a Mockingbird"?
28. Jean Piaget believed that knowledge is :
- (1) co-constructed in interactions with more knowledgeable others.
- (2) a visible behavioural change that can be measured with reliability.
- (3) constructed by the child rather than being passed passively from the environment.
- (4) innate and given rather than acquired through interactions.
29. The Central argument of Carol Gilligan's critique of Kohlberg's theory of moral development is around :
- (1) Use of experimental design in studying children
- (2) Educational implications of the study for school going children.
- (3) Ethics of care and the feminist perspective
- (4) Overestimation of children's moral abilities.
30. **Assertion (A):** The less able a child is to do a task the more directions the teachers should give and as the child can do more and more the teacher should help less and less.

Reason (R): Intelligence cannot be accurately measured by calculating IQ.

Choose the correct option.

- (1) (A) is true but (R) is false.
- (2) Both (A) and (R) are false.
- (3) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (4) Both (A) and (R) are true but (R) is not the correct explanation of (A).

Mathematics and Science

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

31. Three numbers are in the ratio 2 : 3 : 4 and the sum of their cubes is 33957. What is the sum of the three numbers?
- (1) 72 (2) 81
- (3) 54 (4) 63
32. Three consecutive integers are such that when they are taken in increasing order and multiplied by 3, 5

and 2, respectively, they add up to 99. What is the sum of the original first and third integers?

- (1) 20 (2) 24
- (3) 16 (4) 18

33. A student listed the following properties of Rational Numbers. Which one/ones is/are correct?

- (a) A rational number includes integers
- (b) 0 (zero) is not a rational number
- (c) All fractions are rational numbers

Choose the correct option.

- (1) Only (c) (2) (a) and (b)
- (3) (a) and (c) (4) Only (b)

34. The area of the curved surface of a right circular cylinder is 4400 cm^2 and the circumference of its

base is 110 cm. Its volume (in m^3) is : (Use $\pi = \frac{22}{7}$)

- (1) 0.0285 (2) 0.0382
- (3) 0.0284 (4) 0.0385

35. In triangle, PQR, $\angle P = 55^\circ$ and $QR = 18 \text{ cm}$. In which of the following cases, ΔPQR can be an obtuse scalene triangle?

- (1) $\angle R = 65^\circ$ and $PQ > 18 \text{ cm}$
- (2) $\angle R = 35^\circ$ and $PR = 18 \text{ cm}$
- (3) $\angle R = 25^\circ$ and $PQ = 18 \text{ cm}$
- (4) $\angle R = 15^\circ$ and $PR > 18 \text{ cm}$

36. Concept was labelled as 'Schema' by:

- (1) Bruner (2) Van Hiele
- (3) Vygotsky (4) Piaget

37. If $\frac{x}{y} = \left(\frac{-1}{3}\right)^{-3} \div \left(\frac{2}{3}\right)^{-4}$, then what is the value of

$$\left(\frac{x}{y} + \frac{y}{x}\right)^{-1} ?$$

- (1) $\frac{38}{73}$ (2) $-\frac{48}{265}$
- (3) $-\frac{3}{16}$ (4) $\frac{19}{48}$

38. If $A = -2x^2 + 12x$, $B = 11 - 8x + 3x^2$, $C = 17 - 4x^2$ and $D = x^2 - x - 3$, then what is the sum of the coefficients of x^2 and x in $(A + B + C - D)$?

- (1) 1 (2) 3
- (3) 0 (4) -1

39. BD is the diagonal of parallelogram ABCD such that $\angle CBD = 12x$, $\angle ABD = 7y$, $\angle ADB = 60^\circ$ and $\angle CDB = 28^\circ$. Then, the value of $2x + 3y$ is :

- (1) 22° (2) 23°
- (3) 20° (4) 21°

40. If $x = 1.011 + 10.11 - 12.101 + 0.1011$, then what should be added to x to get the sum as 1.1?

- (1) 0.2211 (2) 1.1311
- (3) 1.9789 (4) 0.3111

41. If a 8 - digit number $9471 \times 9y2$ is divisible by 72, then which of the following statements is **not** true?

- (1) $x = 9$ and $y = 5$ (2) $x = 3$ and $y = 1$
- (3) $x = 8$ and $y = 5$ (4) $x = 4$ and $y = 9$

42. One of the factors of $p^3x + p^2(x - y) - p(y + z) - z$ is :

- (1) $p^2x - py - z$ (2) $p^2x + py - z$
- (3) $p^2x - py + z$ (4) $p^2x + py + z$

43. If the median of the data 30, 8, 7, 3, 17, 15, 21, 24, 29, 23 is x and the median of the data obtained by replacing 3 by 33 and 8 by 18 in the above data is y , then what is the difference between y and x ?
- (1) 3 (2) 4
(3) 1 (4) 2
44. A middle school mathematics teacher poses the following question to her class.
- (a) The height of participants in an athletics meet
(b) The number of passengers boarding trains from 9:00 am to 9:00 pm at a station".
- The intention of the teacher is to-
- (1) Teach line graph through contextual situations
(2) Teach the use of histograms for data representation
(3) Help learners to understand the difference between bar graph and line graph
(4) Introduce the concept of pie charts.
45. In triangles ABC and DEF; $\angle B = 90^\circ$, $BC = 8$ cm, $\angle A = 40^\circ$, $DE = 8$ cm, $\angle F = 40^\circ$ and $\angle E = 90^\circ$. Then, which of the following statements is true?
- (1) $\triangle ABC \cong \triangle DEF$, by AAS
(2) $\triangle ABC \cong \triangle FED$, by AAS
(3) $\triangle ABC \cong \triangle DEF$, by RHS
(4) $\triangle ABC \cong \triangle FED$, by RHS
46. The lengths of the parallel sides of a trapezium are 11 cm and 25 cm and the distance between them is 12 cm. Its area is equal to the area of a rectangle whose sides are in the ratio 3 : 2. What is the perimeter (in cm) of the rectangle?
- (1) 60 (2) 70
(3) 40 (4) 50
47. A class VI mathematics teacher posed the following problem to her students:
- "In a morning walk, three persons started together. Their steps measure 70 cm, 85 cm and 95 cm respectively. What is the minimum distance each should walk so that all can cover the same distance in complete steps?"
- Which of the following concepts would be required to solve the given problem?
- (1) Concept of division (2) Concept of proportion
(3) Concept of HCF (4) Concept of LCM
48. National Education Policy (NEP) 2020 recommends that Sports Integrated Pedagogy needs to be used in classroom teaching. Which among the following are correct in the context of using sports integrated pedagogy in mathematics classroom?
- (a) Teaching-learning process shall become joyful
(b) It is not possible to use sports for teaching mathematics
(c) It will be time consuming and hence needs to be avoided
(d) Apart from popular sports, there are many indigenous sports which can be used in teaching mathematics.
- Choose the correct option.
- (1) (a) and (d) (2) (b), (c) and (d)
(3) (a) and (c) (4) (b) and (c)
49. The difference between two supplementary angles is 20° . If the smaller of these angles is p , then the value of $3p - 50^\circ$ is :
- (1) 250° (2) 190°

- (3) 310° (4) 270°

50. Teacher conducted an oral assessment in class and found that Ram can speak definition of all types of numbers-odd, even, prime, and composite accurately, but not able to identify the numbers accurately when given a set of numbers.

Which of the following is most appropriate for the above situation?

- (1) Ram has good memory but lacks conceptual understanding
(2) Ram has analytical ability
(3) Ram has good memory but lacks practice
(4) Ram has good memory but lacks concentration.

51. Mathematics is a way of thinking since:
- (a) It provides an opportunity for students to engage in proofs and examining patterns.
(b) Students reproduce formulae and symbols during problem solving
(c) Students use appropriate strategies for solving various new problems

Choose the correct option.

- (1) (a) and (c) (2) Only (b)
(3) (a) and (b) (4) (b) and (c)

52. x varies inversely as y . When $x = 3.5$, then $y = 2.4$. What is the value of y when $x = 5.6$?

- (1) 2.1 (2) 2.8
(3) 1.4 (4) 1.5

53. The following table shows the number of different fruits kept in a carton:

Types of fruits	Mangoes	Apples	Oranges	Guavas	Pomegranates
Number	44	56	42	30	38

If a pie chart is constructed for the above data, what will be the angle of the sector representing apples?

- (1) 96° (2) 100.8°
(3) 79.2° (4) 72°

54. A shopkeeper sells an article for ₹ 324 after giving a discount of 28% on its marked price. The cost price of the article is ₹ 300. If he sells the article by giving 18% discount on its same marked price, then what will be his profit percent?

- (1) 23% (2) 24%
(3) 10% (4) 19%

55. The product of two rational numbers is $-\frac{40}{3}$. If one

of the two numbers is $-\frac{5}{2}$, then the reciprocal of the other number lies between:

- (1) $\frac{1}{5}$ and $\frac{1}{4}$ (2) $\frac{1}{4}$ and $\frac{1}{3}$
(3) $\frac{3}{20}$ and $\frac{9}{50}$ (4) $\frac{9}{50}$ and $\frac{1}{5}$

56. The number of vertices (V), edges (E) and faces (F) of a polyhedron are respectively 10, 15 and x . Then the value of $(3x - 12)$ is :

- (1) 14 (2) 18
(3) 7 (4) 9

57. A student was given the following problem on percentage to solve.

"Find the percentage of decrease if the population of a city decreased from 28,000 to 26,500."

She wrote the following solution.

Original population = 28,000; New population = 26,500

$$\% \text{ decrease} = \frac{26,500}{28,000} \times 100 = 94.6\%$$

Which of the following is most appropriate with respect to the response of the student?

- (1) Student does not know the concept of percentage.
 - (2) Student has made a careless mistake
 - (3) Student is able to understand the concept of percentage but is not able to understand percentage of which quantity is to be found.
 - (4) Student has solved the question correctly but had used wrong symbols in solution.
58. A box opened at the top is made of wood of thickness 3 cm. Its external length, breadth and height are respectively 1.48 m, 1.16 m and 83 cm (base = length \times breadth). What will be the cost of painting its inner surface at ₹ 150 per m²?
- (1) ₹ 841.40
 - (2) ₹ 842.50
 - (3) ₹ 838.20
 - (4) ₹ 839.10
59. Which among the following Learning-Teaching Resources (LTRs) are most appropriate for visually challenged students in mathematics classroom?
- (a) Geogebra
 - (b) Taylor's abacus
 - (c) Computer
 - (d) Spreadsheet
- Choose the correct option.
- (1) (b) and (c)
 - (2) (b), (c) and (d)
 - (3) (a) and (b)
 - (4) (c) and (d)
60. Which of the following is not a dimension of assessment of mathematics learning?
- (1) Disposition towards mathematics
 - (2) Mathematical reasoning
 - (3) Communication
 - (4) Patterns and procedures
61. Which of the following is NOT indicative of the hypothesising skill?
- (1) Using the senses to gather information
 - (2) Identifying variables for an experiment
 - (3) Formulating questions which lead to inquiry
 - (4) Attempting to explain observations or relationships in terms of some principle
62. Identify the **correct** statement(s):
- (a) A fact is observation that has repeatedly been found to be true over the time.
 - (b) A law is a theory that has repeatedly been found to be true over the time.
- (1) Only (b)
 - (2) Neither (a) nor (b)
 - (3) Only (a)
 - (4) (a) and (b)
63. Which of the following plant disease(s) are caused by bacteria?
- (a) Rust of wheat
 - (b) Citrus canker
 - (c) Yellow vein mosaic of bhindi
- (1) (b) and (c)
 - (2) Only (c)
 - (3) (a) and (b)
 - (4) Only (b)

64. A teacher, while teaching the chapter 'Body Movements' to class VI students shows the following images to her students:

A sailing boat, swimming fish and a flying aeroplane. She then asks the students to reflect on the shape of the images and the manner of movement. Which of the following are likely to be employed by students in answering?

- (a) Classifying
 - (b) Observing
 - (c) Inductive reasoning
 - (d) Measuring
- (1) (c) and (d)
 - (2) (a) and (d)
 - (3) (a) and (b)
 - (4) (b) and (c)

65. Match the substances with the categories mentioned.

	Column A		Column B
A.	Slaked lime	(i)	Calcium oxide
B.	Table salt	(ii)	Sodium bicarbonate
C.	Limestone	(iii)	Calcium carbonate
D.	Caustic soda	(iv)	Calcium hydroxide
E.	Quick lime	(v)	Sodium hydroxide
F.	Baking soda	(vi)	Sodium chloride

Choose the correct option.

- (1) A-(i), B-(vi), C-(iii), D-(v), (E)-(ii), F-(iv)
 - (2) A-(iv), B-(v), C-(iii), D-(ii), (E)-(i), F-(vi)
 - (3) A-(iv), B-(vi), C-(iii), D-(v), (E)-(i), F-(ii)
 - (4) A-(vi), B-(ii), C-(v), D-(i), (E)-(iii), F-(iv)
66. Read the following text:
- When a negatively charged rod is brought near an uncharged electroscope.
- (a) the electroscope leaves move further apart
 - (b) both the electroscope leaves acquire similar charge
 - (c) the negative charges pass on to the electroscope causing its leaves to move further apart of the above three statements:
- (1) (a), (b) and (c) are observations
 - (2) (a), (b) and (c) are inferences
 - (3) (a) is an observation while (b) and (c) are inferences
 - (4) (a) and (b) are observations and (c) is an inference.
67. Read the following statements and choose the correct option.
- Assertion (A):** The stars in the night sky appear to move from east to west.
- Reason (R):** The earth rotates from west to east.
- (1) (A) is correct but (R) is incorrect.
 - (2) (A) and (R) are both incorrect.
 - (3) (A) and (R) are both correct and (R) is the correct explanation of (A).
 - (4) (A) and (R) are both correct but (R) is not the correct explanation of (A).
68. A box of mass 500 g is lying on a horizontal table. Which of the following statements is true regarding the force(s) acting on it? [$g = 10 \text{ m/s}^2$]
- (1) A pair of balanced forces acts on it
 - (2) An unbalanced force of 5 N acts on it in the upward direction
 - (3) No force acts on it
 - (4) An unbalanced force of 5 N acts on it in downward direction

69. Which of the following best explains the statement 'science promotes scepticism'?
- (1) Scientists do not trust the findings of other scientists
 - (2) Scientists are open-minded and willing to modify their ideas
 - (3) Scientists judge the validity of a claim based on objective empirical evidence
 - (4) Science is purely inductive in nature
70. X and Y are thick, black liquids which can be used for metalling the roads. X is derived from petroleum and Y is derived from coal. Which of the following can X and Y respectively be?
- (1) Charcoal, Bitumen
 - (2) Coal Tar, Bitumen
 - (3) Bitumen, Coal Tar
 - (4) Coal Tar, Charcoal
71. Which of the following is the most suitable reason behind Newtons theory of gravitation being regarded as an excellent theory?
- (1) It has been formulated using the precise language of mathematics
 - (2) It has been developed over a long period of time
 - (3) It explains larger number of observations by making fewer assumptions
 - (4) It has been arrived at after thorough experimentation
72. Find the set that correctly matches the plants with the mode of asexual reproduction which they exhibit.

	Column A		Column B
A.	Rose	(i)	Budding
B.	Yeast	(ii)	Spore formation
C.	Ferns	(iii)	Fragmentation
D.	Spirogyra	(iv)	Pollination
		(v)	Vegetative propagation

Choose the correct option.

- (1) A-(v), B-(iii), C-(ii). D-(i)
 - (2) A-(iv), B-(iii), C-(i). D-(ii)
 - (3) A-(v), B-(i), C-(ii). D-(ii)
 - (4) A-(iv), B-(i), C-(v). D-(iii)
73. Read the following statements carefully and select the **correct** option.
- S1: Rayon is a synthetic fibre.
- S2: Rayon is made without using any natural raw material
- (1) S1 is false and S2 is true
 - (2) Both S1 and S2 are false
 - (3) Both S1 and S2 are true
 - (4) S1 is true and S2 is false
74. Which of the following would be a most suitable strategy to introduce the topic 'deficiency diseases' at upper primary level?
- (1) List the various nutrients and the functions they perform in human body.
 - (2) Hold a discussion on common human diseases.
 - (3) Provide a definition of balanced diet and introduce the concept of deficiency.
 - (4) Arrange for a doctor's prescription pertaining to a deficiency isease and hold a discussion around it.

75. Consider the test item given below and match the following :

	Column A		Column B
A.	Unit of force	(i)	joule
B.	Symbol of iron	(ii)	HCl
C.	Formula of hydrochloric acid	(iii)	Ag
D.	Unit of work	(iv)	— —
E.	Symbol of silver	(v)	Calorie
F.	Symbol of battery	(vi)	Fe
		(vii)	Newton

Which of the following is not a reason that can be given to justify that the item is poorly constructed?

- (1) The matching pairs can be easily guessed
 - (2) There is inconsistency among entries
 - (3) For an entry in column A here are at the most two plausible entries in column B
 - (4) There are unequal entries in column A and B
76. A body has a linear momentum of p and a mass of m . The kinetic energy of the body is :
- (1) $\frac{p^2}{2m}$
 - (2) pm
 - (3) p^2m
 - (4) $2p^2m$
77. Which of the following statements regarding rusting of iron are true?
- (a) It involves a chemical reaction between iron and oxygen
 - (b) It is an exothermic reaction
 - (c) It can take place at room temperature
 - (d) It is reversible reaction
- (1) (a) and (d)
 - (2) (a), (b) and (c)
 - (3) (a), (b), (d)
 - (4) (b) and (c)
78. Identify the **correct** statements from the following:
- (a) Generally non-metals do not react with water.
 - (b) Generally non-metals do not react with acids.
- (1) Both (a) and (b)
 - (2) Neither (a) nor (b)
 - (3) Only (a)
 - (4) Only (b)
79. Which of the following is the most suitable strategy for introducing the students to the concept of 'chemical reactions' at upper primary level?
- (1) Define a chemical reaction and give examples
 - (2) Hold a discussion on chemical reactions which students are likely to have observed in their lives
 - (3) Explain the concept of valence electrons and electronic configuration
 - (4) Write the chemical equations in symbolic form and ask students to observe
80. Read the following paragraph carefully and select the option which would correctly fill in the given order.
- Sound is produced by vibration and different musical instruments have specific vibrating parts. In a X the sound is produced by stretched strings, in a Y it is the stretched membrane that vibrates and in a Z the vibrating part that produces sound is the air column.
- X, Y and Z can respectively be :
- (1) guitar, tabla, shehnai

- (2) ektara, violin, piano
(3) sitar, harmonium, dholak
(4) dholak, ektara, mouth organ
81. Which of the following statement(s) is correct?
(1) Fertilisers provide a lot of humus to the soil
(2) Fertilisers increase the number of friendly microbes in soil
(3) Fertilisers are richer in specific nutrients as compared to manure
(4) Fertilisers enhance the water holding capacity of the soil
82. Which of the following is not desirable with respect to carrying out of a classroom demonstration by a teacher?
(1) Supplement the demonstration with explanations
(2) Follow up the demonstration with discussion
(3) Rehearse the demonstration before carrying it out in class
(4) Emphasise before hand the linkages that students are required to make
83. A ball is thrown up in the air. It reaches a maximum height and then returns to the thrower. Which of the following quantities have the same values during the upward and downward motion of the ball?
(1) Work done by gravity (2) Acceleration
(3) Force of gravity (4) Displacement
84. Seed dispersal may be said to help the plants in all of the following except:
(1) produce new varieties
(2) over crowding
(3) avoid competition for sunlight, water and minerals
(4) invade new habitats
85. X is a device which is used to see around corners and is based on the principle of X. X and Y respectively are:
The underlined word can be replaced the word.
(1) Periscope, dispersion
(2) Telescope, reflection
(3) Kaleidoscope, refraction
(4) Periscope, reflection
86. The difference between maximum and minimum resistance that can be obtained by connecting three resistances $\frac{1}{3} \Omega$ of each is:
(1) $\frac{1}{9} \Omega$ (2) $\frac{2}{3} \Omega$
(3) $\frac{8}{9} \Omega$ (4) 1Ω
87. Which of the following gases are responsible for acid rain?
(a) Nitrogen (b) Oxygen
(c) Ozone (d) Sulphur dioxide
(e) Nitric oxide
(1) (d) and (e) (2) (a) and (b)
(3) (b) and (c) (4) (c) and (d)

88. Read the following statements and select the correct option.
Assertion (A): Dried raisins when left in plain water for sometime swell due to osmosis.
Reason (R): Plant cells have a selectively permeable cell membrane.
(1) (A) is incorrect but (R) is correct.
(2) (A) and (R) are both correct and (R) is the correct explanation for (A)
(3) (A) and (R) are both correct but (R) is not the correct explanation for (A)
(4) (A) is correct but (R) is incorrect
89. Which of the following is a set of animals in which all show external fertilization?
(1) Frogs, fish, starfish
(2) Hens, lizards, butterflies
(3) Lizards, butterflies, frogs
(4) Butterflies, frogs, fish
90. Which of the following element must be available in water for the metamorphosis of tadpoles?
(1) Chlorine (2) Bromine
(3) Sulphur (4) Iodine

Language-I: English

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

1. We were walking across the garden when my daughter spotted a cluster of familiar red flowers. She pulled me to one side and then, looking excitedly at me as though she had a secret to share, she pulled me down to her height and whispered in my ears. I shot up straight almost as soon as she had finished her sentence. With my mouth ajar, I was about to tell her that it was probably not a good idea to do so when I was transported to time when I was around her age.
2. It had been a rather long day from school and I was dead tired. I was walking along the pathway that was lined with many ixora plants when my friend grabbed me by the arm. Before I could do anything, he gleefully plucked a single flower from the cluster and showed it to me. Unimpressed. I was not about to be swayed by a puny flower and was about to admonish him when he turned the flower upside down to show me a tiny almost invisible thread like thing that protruded out from its stalk.
3. He pulled the faint yellowish thread and right at the end of it, a tiny drop of nectar appeared. At least, that was what I think it was, as it was really quite sweet. That day we raided the ixora plants, We really had a lot of fun, I could still taste the sweetness till today. My daughter's urgent tug brought me back to reality. I turned to my daughter and decided that she too needed to know the joy of tasting set nectar from beautiful blooms.
91. Identify the parts of speech of the underlined words. I was transported to the time when I was around her age
(1) noun, preposition (2) noun, adverb
(3) noun, verb (4) adjective, preposition
92. From the given anecdote one can assume that the 2 characters shared the relationship of:
(1) school-mates
(2) grandmother and grand-child

- (3) best friends
(4) mother and daughter
93. I was about to admonish him
The underlined word can be replaced the word.
(1) refuse (2) cajole
(3) appreciate (4) reprimand
94. 'to be transported in time' means _____.
(1) recollect memories of the past
(2) to take future decisions
(3) travel backwards
(4) to indulge in time travel
95. 'To be dead tired' does not mean-
(1) to be completely exhausted
(2) to feel refreshed
(3) to feel too tired to walk
(4) to be exhausted
96. Complete the word analogy :
cluster : bunch :: puny : ?
(1) prickly (2) long-stalked
(3) delicate (4) colourful
97. In para 1, according to the mother it was not a good idea to:
(1) walk in the garden the whole day
(2) walk along the pathway alone
(3) taste sweet nectar from flowers
(4) raid the ixora plants
98. **Assertion (A):** The child was excited to share a secret with her mother.
Reason (R): The mother was in disbelief and went down memory lane.
Choose the correct option.
(1) Both (A) and (R) are true but (R) is not the correct explanation of (A).
(2) Both (A) and (R) are true and (R) is the correct explanation of (A).
(3) (A) is correct, but (R) is incorrect.
(4) Both (A) and (R) are correct.
99. Read the following sentences
(a) The writer is traumatised by the memories of her childhood.
(b) The daughter's secret brings back nostalgic memories of the school days.
(c) The writer wants her child to be connected to the sweet pleasures of nature.
(1) (a) and (b) are correct, (c) is incorrect
(2) (b) and (c) are correct, (a) is incorrect
(3) (a) and (c) are correct, (b) is incorrect
(4) (a) and (c) are incorrect, (a) is correct

Direction (100-105): Read the given extract and answer the questions that follow.

My tea is nearly ready and the sun has left the sky;
Its time to take the window to see Leerie going by;
For every night at tea time and before you take your seat,

With lantern and with ladder he comes posting up the secret.

Now Tom would be a driver and Maria may go to the sea;

And my papa's a banker and as rich as he can be;
But I, when I'm stronger and choose what I'm to do,
O Leerie, I'll go around at night and light the wit you

For we are very lucky, with a lamp before the door

And Leerie stops to light it as he lights so many more
And O! Before you hurry by with ladder and with light,

O Leerie, see a little child and nod to him tonight!

100. The poet looks at the lamp-lighter's profession with-

- (1) curiosity (2) confusion
(3) wonder (4) jealousy

101. The phrase, "the sun has left the sky" indicates that -

- (1) it is afternoon (2) it is evening time,
(3) it is morning (4) it is forenoon

102. Identify the rhyme scheme in lines 5 - 8,

- (1) abab (2) aaba
(3) abba (4) aabb

103. Why does the poet consider himself to be fortunate ?

- (1) He has light at night by his door.
(2) He is strong and doesn't have to make a choice in life.
(3) He has a rich banker father.
(4) He doesn't have to light other peoples' doors.

104. Read the following sentences

- (a) The poet occasionally alight outside his door
(b) The poet wants to be a bunker like his father when he grows up.
(c) The poet is fascinated by the lamp lighter's profession.

- (1) (a) and (b) are incorrect, (c) is correct
(2) (a) and (b) are correct, (c) is incorrect
(3) (a) and (c) are correct, (b) is incorrect
(4) (b) and (c) are correct, (a) is incorrect

105. With reference to the poem, complete the word analogy:

Leerie : lamplighter :: father : ?

- (1) sailor (2) banker
(3) rich businessman (4) driver

106. Which of the following is NOT true of Sign Language?

- (1) Sign language does not have a grammar
(2) Sign language has a grammar
(3) Sign language has many varieties
(4) Sign language is a natural language

107. Following learning task was given to learners in different groups. Find out what is this vocabulary learning activity known as.

Find words and phrases which relate to the following words.

Family Relationship Feeling

- (1) Cluster Vocabulary (2) Word Web
(3) Thematic Vocabulary (4) Word clusters

108. Procedural knowledge in the teaching-learning grammar is

- (1) knowing the rules of the grammatical item,
(2) knowing the language and its culture.
(3) knowing how to do the grammatical item.
(4) knowledge about the grammatical item,

109. A learner reads through the news item in the newspaper to know specific information. This reading is known as

- (1) Scanning (2) Study skill
(3) Critical reading (4) Skimming

110. A language teacher tells a story in English and asks learners to work in group to tell the story in the languages known to ER and then in the common

- language of the classroom. What is this pedagogical strategy known as ?
- (1) Multilanguage teaching
 - (2) Language acquisition
 - (3) Transtanguaging
 - (4) Multilingual policy
111. Shreya is a Class VI learner who moves from the Jalandhar in Punjab to Madurai in Tamil Nadu as her father has been transferred. She knows Punjabi as her mother tongue and English language she studies as her second language in school. She is able to speak and read Tamil learning from her neighbourhood. Which one of the following statements is true based on the languages she now knows?
- (1) All the three languages, Punjabi, Tamil and English under language learning
 - (2) Her English comes under language acquisition and Punjabi and Tamil come under language learning.
 - (3) Her Punjabi and Tamil come under language acquisition and English comes under language learning.
 - (4) Her Tamil comes under language acquisition and English and Punjabi come under language learning.
112. A teacher of Class VII conducts a pair work activity in which the pairs are given a story of ten sentences. One in the pair reads out the first sentences and the other in the pair writes that sentence. Then other in the pair read out second sentence and the first in the pair writes the second sentence. Likewise the pairs complete the whole story. Later they compare their writing with the original text given to them. What is the activity known as?
- (1) Sentence Dictation
 - (2) Mutual Dictation
 - (3) Mutual Writing
 - (4) Mutual Listening
113. The language we use for day-to-day, face-to-face interaction is known as:
- (1) Communicative language skills
 - (2) Interpersonal language proficiency
 - (3) Cognitive Academic Language Proficiency (CALP)
 - (4) Basic Interpersonal Communication Skills (BICS)
114. A teacher at the secondary Stage gives a text/short story and asks them to read and discuss the meaning and ideas of the text from the point of view of power and justice. What does the teacher attempt to develop in the learners ?
- (1) Critical language development
 - (2) Higher order language skills
 - (3) Critical literacy skills
 - (4) Critical pedagogy
115. A method of teaching in which a teacher and four students form a collaborative learning group with different roles. Dialogues occur on the content of the text passage, which creates a zone of proximal development in which reading comprehension improves. This method is referred to-as:
- (1) Structural Approach
 - (2) Model Reading
 - (3) Grammar Translation Method
 - (4) Reciprocal Teaching
116. Remedial teaching is for ;
- (1) learners and teachers to understand and modify improve their teaching, learning strategies.
 - (2) learners and teachers to enhance the scores in the examination in language paper.
 - (3) learners who need attention on certain aspects of language learning.
 - (4) teachers who need to modify their teaching for certain student to learn the language.
117. What is 'interlingual identification'?
- (1) Learner's judgment that the knowledge of the native language interferes in the learning of second language.
 - (2) Learner's understanding that learning of different languages warrants different abilities.
 - (3) Learner's judgment that something in the native language and something in the target language are similar.
 - (4) Learner's judgment that something the native language and something in the target language are dissimilar.
118. Malayalam spoken by a particular community in Kozhikod is slightly different from the Malayalam spoken by others in the same place. What is the Malayalam spoken by the particular community known as?
- (1) Social dialect of Malayalam
 - (2) They are two different languages
 - (3) Two varieties of Malayalam
 - (4) Regional dialect of Malayalam
119. Which of the following is NOT the purpose of extensive reading?
- (1) Reading for learning grammar
 - (2) Reading for pleasure
 - (3) Reading for appropiation
 - (4) Reading for extrapolation
120. Which one of the following is true of the three language formula?
- (1) Mother tongue/home language/Hindi as the first language
 - (2) Mother tongue/home language/English as the first language
 - (3) Mother tongue/home language/ regional language as the first language
 - (4) English/Hindi/home language/local language as the first language

भाषा-I: हिन्दी

निर्देश (91-99): निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़िए तथा पूछे गए प्रश्नों के उत्तर के रूप में उचित विकल्प का चलन कीजिए—

इच्छा से प्रेरित होकर लोग उन्नति के मार्ग पर चलने लगते हैं। अपनी यात्रा के आरंभ में वे अपनी प्रगति में बाधा डालने वाले सैकड़ों व्यक्तिगत और सामाजिक खामियों का पता लगाते हैं। उन आदिमानवों ने सुख प्राप्त करने को अपनी सहज इच्छा से प्रेरित होकर भी इन खामियों के खिलाफ संघर्ष किया। हालांकि प्रगति प्राप्त करने के लिए कोई व्यवस्थित तरीका उपलब्ध न होने के कारण वे बहुत कमजोर थे।

मानव अस्तित्व त्रिपक्षीय है— भौतिक, मानसिक और आध्यात्मिक। अपनी यात्रा के प्रारंभिक चरण में सुदूर अतीत के अंधेरे युग में मानव ने अकेले भौतिक और मानसिक क्षेत्रों में प्रगति की। मानव संरचना में रूपात्मक परिवर्तन अब भी हो रहे हैं और भविष्य में भी होंगे। मनुष्य भविष्य में ऐसे उल्लेखनीय परिवर्तनों से गुजरेगा जो आज के लोगों के लिए

लगभग अपरिचित होंगे। हम यह नहीं कह सकते कि उन आरंभिक मनुष्यों ने वास्तव में कोई महत्वपूर्ण आध्यात्मिक प्रगति की थी। हालांकि उन्होंने जो भी उन्नति की, वह किसी भी तरह से महत्वहीन नहीं थी।

91. विशेषण-विशेष्य का उदाहरण नहीं है:
 (1) मानव अस्तित्व (2) आध्यात्मिक दुनिया
 (3) रूपात्मक परिवर्तन (4) अंधेरे युग
92. उन्नति प्राप्त करने के लिए आवश्यक है कि मनुष्य:
 (1) अपने लक्ष्य की ओर चलता रहे।
 (2) संघर्षरत रहे और विद्रोह करे।
 (3) अपने खूबियों को जान लें।
 (4) अपनी कमियों को जान लें।
93. 'अध्यात्म' शब्द में 'इक' प्रत्यय लगाने पर शब्द बनेगा:
 (1) आध्यात्मिक (2) आध्यात्मिक
 (3) अध्यात्मिक (4) आध्यात्मीक
94. गद्यांश के आधार पर कहा जा सकता है कि:
 (1) परिवर्तन अपरिपक्वता को दर्शाते हैं।
 (2) परिवर्तन तीव्र गति से होते हैं।
 (3) परिवर्तन महत्वपूर्ण नहीं होते।
 (4) परिवर्तन मानव जीवन का सत्य है।
95. आदिमानव ने क्षेत्र में प्रगति की परंतु क्षेत्र में प्रगति नहीं कर सका।
 (1) भौतिक, आध्यात्मिक (2) मानसिक, भौतिक
 (3) आध्यात्मिक, भौतिक (4) भौतिक, मानसिक
96. 'मानव' शब्द में किस प्रत्यय और उपसर्ग का प्रयोग संभव है?
 (1) इत, अ (2) ईय, सु
 (3) ईय, अ (4) ईय, अन
97. मानव के कौन-से तीन पक्ष हैं?
 (1) भौतिक, मानसिक, सांसारिक
 (2) भौतिक, मानसिक, आध्यात्मिक
 (3) आध्यात्मिक, त्रिपक्षीय, भौतिक
 (4) सांसारिक, मानसिक, आध्यात्मिक
98. 'उल्लेखनीय परिवर्तन' से तात्पर्य है:
 (1) पुस्तकों में उल्लिखित परिवर्तन
 (2) पुरस्कृत परिवर्तन
 (3) बड़े-बड़े परिवर्तन
 (4) महत्वपूर्ण परिवर्तन
99. प्रगति प्राप्त करने का व्यवस्थित तरीका किसके पास नहीं था?
 (1) सभी अव्यवस्थित आदिमानवों के पास
 (2) आदिमानवों के पास
 (3) सभी मनुष्यों के पास
 (4) सभी अज्ञानी मानवों के पास

निर्देश (100-105): नीचे दी गई कविता की पंक्तियों को पढ़कर सबसे उचित विकल्प का चयन कीजिए—

कट गया है शीश पर
 ये शीश है झुका नहीं
 राही उसी का नाम है
 जो राह में रुका नहीं
 एक दिन प्रकाश होता है
 कितना भी अंधकार हो

सत्य की विजय सदा
 असत्य की हार हो।

सच्चाई साथ में रहे
 कैसा भी अपना अंत हो
 सत्य की विजय सदा
 असत्य का हार हो।

100. इस कविता का मुख्य स्वर है:
 (1) शृंगार (2) देशभक्ति
 (3) तमस (4) ओज
101. 'अंधकार' का प्रतीक नहीं है।
 (1) चुनौतियाँ (2) समाधान
 (3) बुराई (4) निराशा
102. समूह से भिन्न-शब्द युग्म है:
 (1) जय-पराजय (2) प्रकाश-अंधकार
 (3) हार-बिहार (4) सत्य-असत्य
103. कविता में पर सर्वाधिक बल दिया गया है।
 (1) सत्य (2) राह
 (3) प्रकाश (4) अंधकार
104. कविता के अनुसार राही की विशेषता है:
 (1) हर परिस्थिति में विजयी रहना।
 (2) हर परिस्थिति में कार्यरत रहना।
 (3) हर तरह से काम निकालना।
 (4) हर तरह के मार्ग पर चलते रहना।
105. कविता के अनुसार किसी भी स्थिति में:
 (1) स्वाभिमान बना रहना चाहिए।
 (2) दुखी नहीं होना चाहिए।
 (3) सिर नहीं कटना चाहिए।
 (4) अंधकार हनी होना चाहिए।
106. निम्नलिखित में से कौन-सा संकेत भाषा के बारे में नहीं है?
 (1) संकेत भाषा की व्याकरण नहीं होती है।
 (2) संकेत भाषा में व्याकरण होती है।
 (3) संकेत भाषा के बहुत से प्रकार हैं।
 (4) संकेत भाषा प्राकृतिक भाषा है।
107. नीचे दिया गया अधिगम कार्य शिक्षार्थियों को भिन्न-भिन्न समूहों में करने के लिए दिया गया। पता लगाए कि शब्द संपदा के अधिगम को इस गतिविधि को किस रूप में जाना जाएगा?
 निम्नलिखित शब्दों से संबंधित शब्द और वाक्यों का पता लगाइए:
 (परिवार) (संबंध) (भावनाएँ)
- (1) समूह शब्दावली (2) शब्द जाल
 (3) थीम आधारित शब्दावली (4) शब्द समूह
108. व्याकरण के शिक्षण अधिगम में प्रक्रियात्मक ज्ञान क्या है?
 (1) व्याकरणिक तत्वों के नियमों को जानना।
 (2) भाषा और उसकी संस्कृति को जानना।
 (3) यह जानना कि व्याकरणिक प्रश्न/तत्वों को कैसे किया जाए।
 (4) व्याकरणिक तत्वों के बारे में ज्ञान।
109. एक शिक्षार्थी किसी विशिष्ट जानकारी प्राप्त करने के लिए समाचार पत्र से समाचार पढ़ती है। इस पठन को क्या कहेंगे?
 (1) बारीकी से पठन (2) अध्ययन कौशल
 (3) समालोचनात्मक चिंतन (4) सरसरी तौर पर पठन

110. एक भाषा अध्यापक अंग्रेजी में कहानी सुनाती है और शिक्षार्थियों से कहती है कि उन्हें जो भी भाषा आती है, उस भाषा में यह कहानी समूह में सुनाएँ फिर कक्षा की सामान्य भाषा में यही कहानी सुनाएँ। इस शिक्षणशास्त्रीय युक्ति को किस रूप में जाना जाता है?
- (1) बहुभाषा शिक्षण
 - (2) भाषा-अर्जन
 - (3) परभाषा व्यवहार (ट्रांसलैंग्विजिंग)
 - (4) बहुभाषिक नीति
111. कक्षा 6 की शिक्षार्थी श्रेया अपने पिता के स्थानांतरण के कारण पंजाब के जालंधर से तमिलनाडु के मदुरई जाती है। वह मातृभाषा के कारण पंजाबी जानती है और विद्यालय में द्वितीय भाषा के रूप में अंग्रेजी भी जानती है। उसने अपने पड़ोसियों की मदद तमिल बोलना और पढ़ना सीख लिया है। उसके द्वारा जानी गई भाषाओं के संदर्भ में कौन-सा कथन सही है?
- (1) सभी तीन भाषाएँ पंजाबी, तमिल व अंग्रेजी भाषा अधिगम के अन्तर्गत आएंगी।
 - (2) अंग्रेजी भाषा अर्जन और पंजाबी तथा तमिल भाषा अधिगम के अन्तर्गत है।
 - (3) पंजाबी और तमिल भाषा अर्जन है और अंग्रेजी भाषा अधिगम के अन्तर्गत आएंगी।
 - (4) तमिल भाषा अर्जन और अंग्रेजी तथा पंजाबी भाषा अधिगम के अन्तर्गत आएंगी।
112. कक्षा सात की अध्यापिका जोड़ियों में कार्य करवाने वाली गतिविधि करवा रही है जिसमें सभी जोड़ियों को दस वाक्यों की कहानी पर काम करने के लिए देती है। पहली जोड़ीदार पहला वाक्य पढ़ती है और दूसरी जोड़ीदार उस वाक्य को लिखती है। अब दूसरी जोड़ीदार दूसरा वाक्य पढ़ती है और पहली जोड़ीदार उस दूसरे वाक्य को लिखती है। इस तरह से दोनों जोड़ीदार कहानी पूरी करते हैं। बाद में वे मूल कहानी से अपने लिखे हुए की तुलना करते हैं। इस गतिविधि को क्या कहेंगे?
- (1) वाक्य श्रुतलेख
 - (2) पारस्परिक श्रुतलेख
 - (3) पारिस्परिक लेखन
 - (4) पारिस्परिक श्रवण
113. वह भाषा क्या है जिसका प्रयोग हम दिन-प्रतिदिन के लिए आमने-सामने को अंतःक्रिया के लिए करते हैं?
- (1) सम्प्रेषणात्मक भाषा कौशल
 - (2) अन्तरवैयक्तिक भाषा निपुणता
 - (3) संज्ञानात्मक अकादमिक भाषा निपुणता (CALP)
 - (4) बुनियादी अंतरवैयक्तिक सम्प्रेषण कौशल (BICS)
114. मिडिल स्तर पर अध्यापन करने वाली अध्यापक एक पाठ्य सामग्री/छोटी कहानी पठन के लिए देती है और कहती है कि सत्ता एवं न्याय के दृष्टिकोण से इस पाठ्य सामग्री के अर्थ व विचारों पर चर्चा करो। अध्यापक अपने शिक्षार्थियों में किसका विकास करने की चेष्टा कर रही है?
- (1) समालोचनात्मक भाषा विकास
 - (2) उच्च स्तरीय भाषा कौशल
 - (3) समालोचनात्मक साक्षरता कौशल
 - (4) समालोचनात्मक शिक्षणशास्त्र
115. शिक्षण की विधि जिसमें अध्यापक और चार विद्यार्थी विभिन्न भूमिकाओं के साथ एक सहयोगात्मक अधिगम समूह का गठन करते हैं। पाठ्यवस्तु की विषयवस्तु पर संवाद किया जाता है, जिससे

समीपस्थ विकास का क्षेत्र सृजित होता है और परिणामतः पठन बोध में सुधार होता है। इस विधि को क्या कहेंगे?

- (1) संरचनात्मक उपागम
 - (2) मॉडल पठन
 - (3) व्याकरण अनुवाद विधि
 - (4) पारस्परिक शिक्षण
116. उपचारात्मक शिक्षण किसके लिए है?
- (1) उन शिक्षार्थियों और अध्यापकों के लिए जिन्हें अपने शिक्षण/अधिगम युक्तियों को समझने और बदलने/सुधार लाने की जरूरत है।
 - (2) उन शिक्षार्थियों और अध्यापकों के लिए जो भाषा की परीक्षा में अधिक अंक लाना चाहते हैं।
 - (3) उन शिक्षार्थियों के लिए जिन्हें भाषा अधिगम के कुछ आयामों पर ध्यान देने की आवश्यकता है।
 - (4) उन शिक्षार्थियों के लिए जिन्हें भाषा सीखने वाले कुछ विद्यार्थियों के लिए अपने शिक्षण में सुधार की जरूरत है।
117. 'अंतरभाषिक पहचान' क्या है?
- (1) शिक्षार्थी का यह निर्णय कि सहजात भाषा का ज्ञान द्वितीय भाषा के अधिगम में अवरोध पैदा करता है।
 - (2) शिक्षार्थी की यह समझ की विभिन्न भाषाओं का अधिगम विभिन्न योग्यताओं का आधार/समआशवासन है।
 - (3) शिक्षार्थी के निर्णय कुछ तो सहजात भाषा में और कुछ लक्ष्य भाषा में समान होता है।
 - (4) शिक्षार्थी के निर्णय सहजात भाषा में कुछ और लक्ष्य भाषा में कुछ असमान होते हैं।
118. कोझीकोड में एक विशेष समुदाय में बोली जा रही मलयालम इसी स्थान में दूसरों के द्वारा बोली जा रही मलयालम से थोड़ी सी भिन्न है। विशेष समुदाय द्वारा बोली जा रही मलयालम को किस रूप में जाना जाएगा?
- (1) मलयालम की सामाजिक बोली।
 - (2) ये दो भिन्न-भिन्न भाषाएँ हैं।
 - (3) मलयालम के दो प्रकार।
 - (4) मलयालम की क्षेत्रीय बोली।
119. निम्नलिखित में से कौन-सा विस्तृत पठन का उद्देश्य नहीं है?
- (1) व्याकरण अधिगम के लिए पठन
 - (2) आनन्द के लिए पठन
 - (3) सराहना बोध के लिए पठन
 - (4) बहिर्वेशन (एक्स्ट्रपोलेशन) के लिए पठन
120. त्रिभाषा सूत्र के बारे में कौन-सा कथन सही है?
- (1) मातृभाषा/घर की भाषा/हिंदी प्रथम भाषा के रूप में।
 - (2) मातृभाषा/घर की भाषा/अंग्रेजी प्रथम भाषा के रूप में।
 - (3) मातृभाषा/घर की भाषा/क्षेत्रीय भाषा प्रथम भाषा के रूप में।
 - (4) अंग्रेजी/हिंदी/घर की भाषा/स्थानीय भाषा प्रथम भाषा के रूप में।

Language-II: English

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

1. 'The loss in earnings that farmers see due to extreme weather events or erratic seasonality is, by now, accepted as the most widely felt economic impact of climate change. Farmers were the first people to feel the impacts of climate change, which ultimately affects the country's overall agricultural output and

- adds to food inflation. High food prices, in turn, could result in people slashing down consumption, which adversely te nutritional security.
2. A significant number of farming households produce food for their own consumption. These households have given birth to an old saying: those who eat their own food are the healthiest. In countries like India, where malnutrition is high and fixed insecurity is a nagging constant, such households have used the home production system to remain out of this crisis. As studies point out, these households are also protected from market fluctuations, thus ensuring that they can afford healthy food. Obviously, they are not impacted by food inflation either.
3. But there are serious conversations taking place over how climate change induced extreme weather events would impact such households. We need to understand the link between nutrition intake and households food production and weather fluctuations would have any impact on this. Researchers have analysed village level data from households with their own food production and consumption, and co-related this with the local weather conditions to inter whether there was a correlation. The paper establishes that people growing their own food consume more, thus adding to nutrition levels and attaining overall food security. There was also reduction in child stunting and underweight conditions as well as women achieving a normal body mass index. These trends are more pronounced in remote villages.
121. Complete the given work analogy :
local : global :: erratic : ?
(1) disputable (2) dependable
(3) believable (4) consistent
122. As mentioned in para 1, what is the series of events that are triggered by climate change?
(a) increase in prices of food items
(b) detrimental effect on nutritional security
(c) extreme weather conditions
(d) reduced food consumption
(1) (b), (c), (d), (a) (2) (c), (b), (d), (a)
(3) (a), (d), (c), (b) (4) (c), (a), (d), (b)
123. What is correct about the health status of farmers who take to household food production?
(1) stunted growth of children
(2) women with higher body mass index
(3) children and malnourished
(4) better nutritional intake
124. Read the following sentences:
(a) A significant number of Indian households afford healthy food.
(b) Household food production has limited in on food inflation
(c) Food insecurity in an occasional phenomenon in India.
(1) (a) and (b) are incorrect, (c) is correct
(2) (b) and (c) are incorrect, (c) is correct
(3) (a), (b) and (c) are all incorrect
(4) (a) and (c) are incorrect, (b) is correct
125. Which statement is incorrect with regard to household food production ?
(1) Women enjoyed normal body mass index
(2) Increase in number of malnourished children
(3) Nutritional intake was better
(4) Food consumption in such households was higher
126. By which word can the underlined word be replaced in the given sentence ?
'These trends are more pronounced in remote areas.'
(1) noticeable (2) ignored
(3) disregarded (4) important
127. Identify the parts of speech of the underlined words, A significant number of farming households produce food for their own consumption.
(1) noun, adjective (2) noun, pronoun
(3) adjective, pronoun (4) adverb, pronoun
128. Some households have remained out of the crisis of food insecurity by adopting -
(1) protection from extreme weather conditions
(2) home production systems
(3) high food prices
(4) climate change conditions
- Direction (129-135):** Read the given extract and answer the questions that follow:
1. *Untouchable*, a charming French comedy about two friends who have almost nothing in common, has been a huge international success. But below the story became a cinematic sensation, how exactly did a rich French aristocrat and an Algerian immigrant with a criminal past become good friends? Philip and Abdul first met in Paris in 1993 when Philip was looking for a nurse. He was from a very wealthy family. At one time he had been a successful business man, living a life of great luxury. Then he had a terrible paragliding accident and lost the use of his arms and legs. Life in a wheelchair was lonely and boring. Philip was struggling to imagine the future, and he needed practical help with his day-to-day life.
2. Philip interviewed more than 80 people for the job of a nurse. But none of them seemed right. Then he met Abdul, who had quit a life of crime in Algeria and moved to France to look for work. He was lively, intelligent and quick thinking, with a crazy sense of humour. Philip got on with Abdul immediately, and he offered him the job. The two men didn't have much in common. Abdul loved pop music, but Philip preferred classical music. Philip loved modern art, but Abdul hated it. Philip's family was sure that he had made a bad choice. They believed that Philip needed someone much more sensible. Meanwhile, Abdul wasn't planning on staying in the job for long.
3. However, their working relationship quickly developed into a close friendship. Abdul gave Philip the support he needed. More importantly, his energy and sense of humour brought fun and excitement back into Philip's life. Abdul helped Philip make trips to other countries. Both of them now live in different countries each with a wife and family. They keep in touch regularly. All that really matters to their friendship though, it is their shared love of laughter and adventure.
129. Which aspect of Abdul's personality is not true?
(1) He shared a close rapport with his employer
(2) He preferred listening to classical music
(3) He had a criminal past record
(4) He was quick-witted and supportive.

130. Read the sentences given below :
- 'Untouchable' is a French comedy movie.
 - The theme revolves around 2 friends, Philip and Abdul, who have similar tastes,
 - The movie was a huge success in France and Algeria.
- (1) (b) and (c) are incorrect, (a) is correct
 - (2) (a) and (b) are correct, (c) is incorrect
 - (3) (a), (b) and (c) are all incorrect
 - (4) (a) and (c) are correct, (b) is incorrect
131. What bound the two very different men together for years ?
- (1) love for music
 - (2) their immigration status
 - (3) their love for adventure sports
 - (4) warm friendship
132. Complete the given word analogy:
Luxury : opulence :: sensation : ?
- (1) feeling
 - (2) suspicion
 - (3) disaster
 - (4) callousness
133. Identify the parts of speech of the underlined words.
However, their working relationship quickly developed into a close friendship.
- (1) adjective, verb
 - (2) noun, adjective
 - (3) adjective, adverb
 - (4) verb, adverb
134. Abdul migrated to France to
- (1) listen to pop music
 - (2) search for employment
 - (3) work in the movie industry
 - (4) run away from the Algerian police
135. Why did Philip need a nurse?
- (1) To listen to classical music together
 - (2) To resolve Abdul's immigration status
 - (3) To wipe out Abdul's criminal past.
 - (4) To help him with day-to-day practical things of life.
136. Which of the following is NOT true of National Education Policy 2020 on language education?
- (1) Study of Indian languages under three language formula
 - (2) Study of English as languages under three language formula
 - (3) Study of classical languages under three language formula
 - (4) Study of mother tongue/home language under three language formula
137. A teacher in class VIII read out a text of five sentences in English twice and asked her learners to listen to the text carefully. Then she asked them to work in group of four to recreate text nearest to the one read out, not exactly the same. What is the activity known as ?
- (1) Collective Dictation
 - (2) Listening task
 - (3) Writing task
 - (4) Paragraph Dictation
138. Which of the following processes involved for learning to write well in a language ?
- (1) Brainstorming - jotting down points = writing the draft - editing - making an outline - finalising,
 - (2) Brainstorming = jotting down points = making an outline - writing the draft = editing = finalising.
 - (3) Brainstorming = making an outline - drafting - jotting down points = editing - finalising.
 - (4) Brainstorming - jotting down points = writing the draft - making an outline - editing - finalising,
139. Which one of the following statements is true of language learning, ?
- (1) Knowledge of the native/ first language supports in the learning of second language.
 - (2) First language learning and second language are completely distinct.
 - (3) Knowledge of the native; first language interferes in the learning of second language.
 - (4) Knowledge of the native, first language has nothing to do in the learning of second language.
140. Elam is a student of class VI is able to speak four languages, Kannada, Marathi, Hindi and English. He uses all the four languages freely when he speaks to his parents at home and in school he uses Hindi, Kannada and English as these are the languages known to his friends and teachers. What is this practice known as ?
- (1) Code-switching
 - (2) Interlanguage
 - (3) Translingual ability
 - (4) Code-mixing
141. This refers to the proficiency in academic language or language needed for various content areas.
- (1) Communicative language proficiency
 - (2) Cognitive Academic Language Proficiency (CALP)
 - (3) Inter-language proficiency
 - (4) Basic Interpersonal Communication Skills (BICS)
142. Here is a situation where students were exposed to the opposite perspective of the subject under consideration to allow them to further understand it. What does this process attempt to promote among learners ?
- (1) Critical Literacy
 - (2) Literacy development
 - (3) Critical analysis
 - (4) Process based pedagogy
143. A teacher of class VI brought items like spoon, plate, utensils, boxes and pan to her classroom to teach vocabulary from there writing a description of objects in 'kitchen, what are these objects known as in language teaching ?
- (1) Cooking items.
 - (2) Real life tasks
 - (3) Teaching materials
 - (4) Realia
144. Learners in a class of Social Science try to capture the main ideas of the classroom lecture and make point of the lecture, What is this skill known as ?
- (1) Writing skill
 - (2) Cognitive skill
 - (3) Study skill
 - (4) Listening skill
145. Learning outcomes attempt to enable learner to:
- (1) attain minimum levels of learning of all skills.
 - (2) attain language components in measurable terms.
 - (3) attain the grammatical knowledge in measurable terms.
 - (4) attain the competencies in measurable terms.
146. What is Translanguaging ?
- (1) It is a pedagogical process of using more than one language as resources in a Classroom.
 - (2) It is language-in-education policy on how many languages are to be taught in a school,
 - (3) It refers to moving from one language to another language while teaching-learning languages.

- (4) It refers to understanding how languages change over the period of time.

147. Here is a question, Read and find out which typology of question it belongs to.

Having read the story of the little girl, you feel moved by her suffering and courage to face the trouble. 'You would write a letter to the little girl appreciating her. Write the letter in about 120 words,

- (1) Extrapolative question
- (2) Discursive question
- (3) Expressive questions
- (4) Long answer question

148. Which one of the following is true of the three Language formula?

- (1) All children begin their schooling in the official language. Hindi and move on to add at least two more languages by the time they complete their high school
- (2) All children begin their schooling in their mother tongue/home languages and move on to add at least two more languages by the time they complete their high school.
- (3) All children begin their schooling in the medium of English/home language and move on to add at least two more languages by the time they complete their high school.
- (4) All children begin their schooling in their state language and move on to add at least two more languages by the time they complete their high school.

149. Which of the following methods advocates oral drilling and mastery of the formal properties of language as essential for language learning?

- (1) Grammar translation method
- (2) Total Physical Response
- (3) Audiolingualism
- (4) Communicative language teaching

150. Declarative knowledge is _____

- (1) knowing how to identify an error in grammatical item
- (2) knowing how to do the grammatical item
- (3) knowing to pronounce work in a language.
- (4) knowing about the grammatical item

भाषा-III: हिन्दी

निर्देश (121-150): निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़िए तथा पूछे गए प्रश्नों के उत्तर के रूप में उचित विकल्प का चयन कीजिए—

हाल ही में मेडिकल इंडस्ट्री के एक जानकार दावा कर रहे थे कि भविष्य में डॉक्टरों सर्जनों की जरूरत भी कम होने वाली है। एआई के जरिए लक्षणों को समझा जाएगा। आपकी केस हिस्ट्री एआई को पता होगी। ताजा हालत पूछ ली जाएगी और प्रिस्क्रिप्शन आपके हाथ में होगा। शारीरिक श्रम से जुड़े कार्यों पर शायद सबसे कम असर पड़ने वाला है। यह समझने का वक्त है कि एआई से फायदे होंगे या नुकसान। अभी तो इस नकी बुद्धिमता को ईसान ने ही जन्म दिया है। उसका नियंत्रण है, लेकिन एआई वरदान ही रहे और भस्मासुर न बने, उसके लिए यह सोचने की जरूरत भी है कि मानीय बुद्धिमता के स्तर की इतर ऊँचा कैसे उठाया जाए कि एआई एस पर हावी न हो सके। अब अगर चैट जीपीटी बनाया है तो फिर पढ़ाई-लिखाई और इम्तहानों का वह तरीका कौन सा है, जो बिना एआई के युवाओं और बच्चों के बौद्धिक स्तर को परख सके।

यह सवाल ऐसे है जिनके जवाब दे पाना मुश्किल है, पर नजर जरूर रखनी चाहिए। वैज्ञानिकों को भी तय करना चाहिए कि एआई ऐसी हो जो इंसानियत फैलाने में मददगार हो।

121. 'मानवीय' शब्द में प्रत्यय है:

- (1) ईय
- (2) इय
- (3) वीय
- (4) य

122. 'एआई' का अर्थ है:

- (1) आर्टिफिशियल इंस्टीट्यूट
- (2) एपल इंस्टीट्यूशन
- (3) एपल इंटेलीजेंस
- (4) आर्टिफिशियल इंटेलीजेंस

123. एआई शारीरिक श्रम से जुड़े कार्यों पर संभवतः सबसे कम प्रभाव डाले। इसमें कौन-सा कार्य प्रभावित नहीं होगा?

- (1) खेती-बाड़ी
- (2) आविष्कार
- (3) चिकित्सा
- (4) शिक्षण

124. गद्यांश के आधार पर कहा जा सकता है कि एआई ऐसी होनी चाहिए जो:

- (1) कम समय में अधिक कार्य करें।
- (2) बिना बुद्धि के सारे जवाब दे दें।
- (3) मानवीय क्षमताओं को कम करें।
- (4) मानवीय गुणों का संस्कार दें।

125. चिकित्सा से जुड़े कार्य करने में एआई भविष्य में क्या सहयोग करेगा?

- (1) अस्पतालों की संख्या कम कर देगा।
- (2) अस्पतालों की संख्या बहुत बढ़ा देगा।
- (3) डॉक्टरों को जॉब देगा।
- (4) केस हिस्ट्री बना देगा।

126. एआई को जन्म देने वाला कारक है:

- (1) सभ्यता
- (2) मानव
- (3) आवश्यकता
- (4) तकनीक

127. समूह से भिन्न शब्द है:

- (1) कंकड़-पत्थर
- (2) चाय-चाय
- (3) पढ़ाई-लिखाई
- (4) रात-दिन

128. एआई से शिक्षा जगत भी प्रभावित होगा। यह प्रभाव:

- (1) सकारात्मक होगा
- (2) अधिक होगा
- (3) नकारात्मक होगा
- (4) शून्य होगा

निर्देश (129-135): निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़िए तथा पूछे गए प्रश्नों के उत्तर के रूप में उचित विकल्प का चयन कीजिए—

प्रश्न उठता है कि प्राण का शरीर के साथ बेहतर तालमेल कैसे बैठकर रखा जाए। ऐसा क्या करें कि प्राण शरीर के हर अंग को तरह संतुलित और व्यवस्थित होकर बहे। देखा जाए तो बीमारी और कुछ भी नहीं, बल्कि प्राण का उस अंग विशेष से असंतुलित हो जाना ही है। स्वास्थ्य का अर्थ ही होता है— प्राण का समुचित तरीके से समस्त अंगों की तरफ बहना। योग में इस प्राण की बल देने के लिए अनेक अभ्यास हैं। इनके जरिए हम अपने प्राण को रोज बल दे सकते हैं और शरीर में हाने वाली बीमारियों की रोकथाम कर सकते हैं। यह प्राण केवल हमारे शरीर की ही संभाल नहीं करता, यह मन, बुद्धि आदि प्रत्येक आयाम को जीवन देता रहता है।

129. अच्छे स्वास्थ्य का संबंध से है।

- (1) योगाभ्यास
- (2) बीमारियों के अभाव

- (3) अच्छे शरीर (4) प्राण-वायु
130. जीवन के लिए सर्वाधिक महत्वपूर्ण है:
- (1) प्राण और शरीर का दीर्घायु होना।
 - (2) प्राण और शरीर का सामंजस्य।
 - (3) योग के माध्यम से प्राणायाम करना।
 - (4) प्राण के माध्यम से योग करना।
131. प्राण वायु को सशक्त बनाने के अभ्यास में है।
- (1) चिकित्सक (2) शिक्षक
 - (3) शिक्षा (4) योग
132. विशेषण शब्द का उदाहरण नहीं है:
- (1) स्वास्थ्य (2) व्यवस्थित
 - (3) संतुलित (4) स्वस्थ
133. 'बुद्धि' में 'इक' प्रत्यय लगने पर शब्द बनेगा:
- (1) बोद्धिक (2) बौद्धिक
 - (3) बुद्धिक (4) बौद्धिक
134. रोग का कारण है:
- (1) योग के माध्यम से शारीरिक शक्ति घटाना
 - (2) अपने शरीर की उचित देखभाल न करना
 - (3) प्राण वायु का बहुत अधिक बढ़ जाना
 - (4) प्राण वायु का अंग विशेष में असंतुलन
135. प्राण वायु शरीर के हर अंग में संतुलित और होकर बहती है।
- (1) उत्तेजित (2) मंद-मंद
 - (3) व्यवस्थित (4) अव्यवस्थित
136. भाषा शिक्षा पर राष्ट्रीय शिक्षा नीति 2020 के संदर्भ में कौन-सा कथन सही नहीं है?
- (1) त्रिभाषा सूत्र के अन्तर्गत भारतीय भाषाओं का अध्ययन।
 - (2) त्रिभाषा सूत्र के अन्तर्गत भाषा के रूप में अंग्रेजी भाषा का अध्ययन।
 - (3) त्रिभाषा सूत्र के अन्तर्गत शास्त्रीय भाषा का अध्ययन।
 - (4) त्रिभाषा सूत्र के अन्तर्गत मातृभाषा/घर की भाषा का अध्ययन।
137. कक्षा आठ की अध्यापिका एक पाठ्य सामग्री के पांच वाक्यों को दो बार अंग्रेजी में पढ़ती है और शिक्षार्थियों को ध्यानपूर्वक सुनने के लिए कहती है। इसके बाद वह शिक्षार्थियों को चार-चार के समूह में काम करने के लिए कहती है कि वे पढ़ी गई पाठ्य सामग्री का पुनर्लेखन करें जो एकदम मूल जैसा ना हो। इस गतिविधि को क्या कहेंगे?
- (1) सामूहिक श्रुतलेख (2) श्रवण कार्य
 - (3) लेखन कार्य (4) अनुच्छेद श्रुतलेख
138. निम्नलिखित में से कौन-सी प्रक्रियाएँ भाषा को अच्छी तरह से लिखना सीखने में शामिल हैं?
- (1) मानस मंथन-मुख्य बिन्दु नोट करना-प्रारूप लिखना -रूपरेखा तैयार करना-अन्तिम स्वरूप देना
 - (2) मानस मंथन- मुख्य बिन्दु नोट करना -रूपरेखा तैयार करना-प्रारूप लिखना-संपादन- अन्तिम स्वरूप देना
 - (3) मानस मंथन-रूपरेखा तैयार करना-प्रारूपण- मुख्य बिन्दु नोट करना-संपादन- अन्तिम स्वरूप देना
 - (4) मानस मंथन- मुख्य बिन्दु नोट करना -प्रारूप लिखना-रूपरेखा तैयार करना- संपादन- अन्तिम स्वरूप देना
139. भाषा अधिगम के बारे में कौन-सा कथन सही है?
- (1) सहजात/प्रथम भाषा का ज्ञान द्वितीय भाषा के अधिगम को समर्थित करता है।
 - (2) प्रथम भाषा अधिगम और द्वितीय भाषा दोनों पूरी तरह से अलग-अलग हैं।
 - (3) सहजात/प्रथम भाषा का ज्ञान द्वितीय भाषा के अधिगम में अवरोध डालता है।
 - (4) सहजात/प्रथम भाषा के ज्ञान द्वितीय भाषा के अधिगम से कोई लेना-देना नहीं है।
140. कक्षा सात का विद्यार्थी ऐलम कन्नड, मराठी, हिंदी और अंग्रेजी चार भाषाएँ जानता है। घर में जब वह अपने माता-पिता के साथ बात करता है तो प्रवाह के साथ चारों भाषाएँ बोलता है और विद्यालय में वह हिंदी, कन्नड तथा अंग्रेजी बोलता है क्योंकि उसके मित्र व अध्यापकों को यही भाषाएँ आती हैं। इस स्थिति को किस रूप में जाना जाएगा?
- (1) कोड से आगे जाना (कोड मूविंग)
 - (2) अन्तरभाषा (इंटरलैंग्वेज)
 - (3) परभाषिक (ट्रांसलिंग्वुल) योग्यता
 - (4) कोड जाल (कोड मैशिंग)
141. यह अकादमिक भाषा या विभिन्न प्रकार के विषयों के लिए आवश्यक भाषा में निपुणता से संबंधित है:
- (1) सम्प्रेषणात्मक भाषा निपुणता
 - (2) संज्ञानात्मक अकादमिक भाषा निपुणता (CALP)
 - (3) अंतरभाषा निपुणता
 - (4) बुनियादी अंतरवैयक्तिक सम्प्रेषण कौशल (BICS)
142. वहाँ एक ऐसी स्थिति दी जा रही है जहाँ विद्यार्थियों को विषय के प्रति समझ बनाने के लिए विषय के विपरीत वाले दृष्टिकोण से परिचित करवाया जाता है। इस प्रक्रिया द्वारा विद्यार्थियों में किसके विकास का प्रयास किया जा रहा है?
- (1) समालोचनात्मक साक्षरता
 - (2) साक्षरता विकास
 - (3) समालोचनात्मक विश्लेषण
 - (4) प्रक्रिया आधारित शिक्षणशास्त्र
143. कक्षा छह की अध्यापिका शब्दावली समृद्ध करने के लिए चम्मच, प्लेट, डिब्बे, परात कक्षा में लेकर आती है। इन्हें दिखाकर वह रसोई में इस्तेमाल होने वाली वस्तुओं का विवरण लिखना चाहती है। भाषा शिक्षण के संदर्भ में इन वस्तुओं को क्या कहेंगे?
- (1) खाना पकाने के बर्तन (2) वास्तविक जीवन के कार्य
 - (3) शिक्षण सामग्री (4) वास्तविक वस्तुएँ (रीयलिया)
144. सामाजिक विज्ञान की कक्षा में शिक्षार्थी कक्षा में दिए जा रहे वक्तव्य से मुख्य बिन्दु समझने की कोशिश कर रहे हैं और मुख्य बिन्दु लिख रहे हैं। इस कौशल को क्या कहेंगे?
- (1) लेखन कौशल (2) संज्ञानात्मक कौशल
 - (3) अध्ययन कौशल (4) श्रवण कौशल
145. अधिगम प्रतिफल शिक्षार्थियों को समर्थ बनाते हैं:
- (1) सभी कौशलों के अधिगम के न्यूनतम स्तरों को प्राप्त करना
 - (2) भाषागत तथ्यों को मापन के संदर्भ में प्राप्त करना
 - (3) व्याकरणिक ज्ञान को मापन के संदर्भ में प्राप्त करना
 - (4) दक्षताओं की मापन के संदर्भ में प्राप्त करना
146. 'परभाषा व्यवहार' (ट्रांसलींग्वुजिंग) क्या है?
- (1) एक कक्षा में एक से अधिक भाषाओं को संसाधन के रूप में इस्तेमाल करने की शिक्षण शास्त्रीय प्रक्रिया है।
 - (2) विद्यालय में कितनी भाषाएँ पढ़ानी चाहिए इस मुद्दे पर 'शिक्षा नीति में भाषा' है।

- (3) भाषाओं के शिक्षण अधिगम के दौरान एक भाषा से दूसरी भाषा में व्यवहार करने से संबंधित है।
- (4) भाषाएँ किस तरह से एक समय अवधि के दौरान अपना रूप बदलती हैं।
147. नीचे दिए गए प्रश्न को पढ़ें। पता करें कि यह प्रश्न किसी प्रारूप (टाइपोलोजी) का है?
- “छोटे बालिका की कहानी पढ़ने के बाद आपने उसके दुखी और कठिनाइयों का सामना करने वाले साहस को महसूस किया। आप उस लड़की को उसकी प्रशंसा के लिए पत्र लिखना चाहेंगे। लगभग 120 शब्दों में पत्र लिखिए।”
- (1) पाठ का विस्तार करने वाला प्रश्न (एक्स्ट्रापोलेटिव)
- (2) विमर्श संबंधी प्रश्न
- (3) अभिव्यक्तिपरक प्रश्न
- (4) दीर्घ उत्तरीय प्रश्न
148. निम्नलिखित में से त्रिभाषा सूत्र के संबंध में कौन-सा कथन सही है?
- (1) सभी बच्चे अपनी विद्यालयी शिक्षा राज्य भाषा हिंदी से शुरू करते हैं और दसवीं पूरी करने तक कम से कम दो और भाषाएँ सीखते हैं।
- (2) सभी बच्चे अपनी विद्यालयी शिक्षा मातृ भाषा/घर की भाषा से शुरू करते हैं और दसवीं पूरी करने तक कम से कम दो और भाषाएँ सीखते हैं।
- (3) सभी बच्चे अपनी विद्यालयी शिक्षा अंग्रेजी माध्यम/घर की भाषा से शुरू करते हैं और दसवीं पूरी करने तक कम से कम दो और भाषाएँ सीखते हैं।
- (4) सभी बच्चे अपनी विद्यालयी शिक्षा अपने राज्य की भाषा से शुरू करते हैं और दसवीं पूरी करने तक कम से कम दो और भाषाएँ सीखते हैं।
149. निम्नलिखित में से कौन-सी विधि भाषा अधिगम के लिए डिल और 'भाषा के औपचारिक गुणधर्म में निपुणता' को आवश्यक रूप की तरह अनुशंसा करती है?
- (1) व्याकरण अनुवाद विधि (2) कुल भौतिक प्रतिक्रिया
- (3) श्रव्य भाषावाद (4) सम्प्रेषणात्मक भाषा शिक्षण
150. घोषणात्मक ज्ञान क्या है?
- (1) व्याकरणिक तत्वों में त्रुटि की पहचान करना सीखना।
- (2) किसी व्याकरणिक तत्व पर कैसे कार्य किया जाए यह जानना।
- (3) किसी भाषा के शब्द का उच्चारण करना जानना।
- (4) व्याकरणिक तत्वों के बारे में ज्ञान।

ANSWER KEY

Child Development and Pedagogy

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

Maths & Science

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

Language-I: English

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

भाषा-I: हिन्दी

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

Language-II: English

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

भाषा-II: हिन्दी

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

CTET Solved Paper (Answers with Explanation)

Paper-2
21st January, 2024

Child Development and Pedagogy

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

Explanation: Dyslexia is a neurological condition that impacts the learner's ability to link sounds with symbols because Dyslexia is commonly a 'reading disorder' that leads to difficulty with reading, spelling words and writing.

- In the reference of the question, the students/learners can be confused about the sounds and structure/shapes of the letters.
- They also can face difficulties while reading a particular letter.
- They can also feel difficulties with the recognition of letters/symbols while learning.

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

Explanation: Here, we need to understand that the development of humans is relatively sequential and usually follows a similar pattern. In reference to question, when children learn with concrete objects/real-life objects, they can easily observe things, and see use them in their lives wonderfully. For this, the human follows a specific pattern. For example- if a child wants to learn addition in maths, they can initiate their learning by counting things and add things by real life objects.

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

Explanation: In reference to the question, here we are talking about critical questions in the terms of gender stereotypes, the critical thinking questions are those where you can think in different directions about any topic, similarly, if you are talking about genders in favour or against them, this will directly indicate to the gender stereotypes in positive or negative aspects through the media or textbook.

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

Explanation: In the reference question, the inclusive classroom

is meant to be integrated, this does not support any separations or differentiations in terms of the students/learners, the given reason in the questions is wrong because the inclusive classroom always shows the flexibility either the student is brilliant or dumb, this accepts all kind of individual differences.

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

Explanation: In the referenced question, the teacher is dealing with the student usually take time to self-regulate or you can say that they are less attentive while taking lectures or while listening to something. In that way, the teacher can give timers to students for their self-regulation and time management.

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

Explanation: In the referenced question, the teacher also comes from different social backgrounds, they can also be biased towards the students. In that way the teacher should be culturally responsive and reflective to make the right decisions, in terms of gender stereotypes and Biases.

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

Explanation: Attention is the process that is essential in the meaning-making of the information received from the environment and store it further in memory. Attention is responsible for the sequencing of the information and limits in terms of the capability and duration, in that way, we need to manage the attentional resources to make the world understandable.

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

Explanation: Kohlberg has given the three levels of moral reasoning which are further divided into two sub-stages in the Conventional level (the second three levels) describes children's usually internalizing the rules and regulations and they make their moral judgments as per the norms and expectations of society/group.

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

Explanation: In the referenced question, the constructivist learning theory always pushes the students/learners to build/construct something by their engagement. Constructivist gives so much importance in real-life knowledge rather than passively taking in information.

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

Explanation: According to Vygotsky, the teacher facilitates cognitive development to guide and support the student's learning by scaffolding by dividing the concepts into chunks to make them understandable. In that way, the students will brainstorm the concept and will be able to use it accordingly.

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

Explanation: Inclusive education always supports integration and unity among students. In that way, inclusiveness never supports the competitive ethos, the push the flexible work ability among students.

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

Explanation: By developing self-confidence and self-initiation ability in students, the teacher can strongly influence students' development. In that way, you can push students to develop self-concept by thinking diversely and also, you can create a positive environment where the students can openly speak and share their thoughts openly.

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

Explanation: Vygotsky has defined the "More Knowledgeable Other" (MKO), where the MKO is someone who has a little bit more knowledge than the learners and can help to learn in any specific task, concept or process. The MKO provides temporary help (scaffolding) per the need of the learner in the specific space which is called the Zone of Proximal Development (ZPD).

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

Explanation: In the referenced question, this is not compulsory that every child deals with the same moments when he or she enters into the middle childhood or adolescence. The given reason is correct that development is a continuous process, as you will gain abilities, knowledge and skills over time, but is not definite that every person grows in the same pattern.

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

Explanation: According to John Dewey, in the progressive classroom, the students and teachers both work actively, and cooperate actively learning from each other. In this environment, children gain social and academic knowledge from cooperative learning efforts.

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

Explanation: Naturally, we do have individual difference in, even in animals and plants. In that way, the teacher should accept the individual difference in students as they have different understanding and working abilities, and the teacher should deal with their students as per their abilities.

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

Explanation: The following symptoms in students deal with visual difficulties while learning. In the given conditions, the students cannot see the blackboard clearly at a distance, they may face swelling or irritation in their eyes, or they may also be distracted or confused letters commonly while learning. To prevent this, they can consult with a doctor or rinse their eyes with water in normal condition.

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

Explanation: The mastery goal orientation, where you will only focus on new skills, improvement, and acquisition of additional knowledge. This is not for external motivation. The person who has mastery goal orientation, usually focuses on the appropriate learning strategies, challenging and engaging, and develops a positive orientation toward learning.

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

Explanation: Jean Piaget has given the 4 stages of development.

In these stages, one of the stages is formal operational stages (11 or above) where the students can develop the ability to use symbols for symbols such as letting the letter X stand for unknown numerals or students can meet with the syllabus where they can learn about the algebra and calculus at the initial stage, and develops the ability to think abstractly and also understands the structure of the problems.

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

Explanation: This is correct that emotion plays an important role in our lives. The aspects of students, usually want school acceptance or want that school respect their thoughts or ideas. In that way, it is human nature that if you have importance somewhere, you will automatically feel like going there, to do things there.

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

Explanation: In progressive education, the teacher and students are equally important. In progressive education, experience or pre-knowledge is more important. In that way, the teacher provides a diversity-rich environment where the students can learn actively about the things within their interest. For this, the teacher can use real-life examples.

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

Explanation:

1. **Socialisation is a complex process:** Yes, Socialisation is a complex process because the life of the children is influenced by the various agencies. Throughout the process, the child acquires the knowledge, attitudes, values, and behaviors which must be developed for survival in society.

2. **Socialisation is a multidimensional process:** Socialisation is usually done on the basis of multiple ways, like in the form of family, schools, neighbours and through multiple agencies.

3. **Socialisation takes place uniquely in different cultures:** Socialisations differ in different cultures, and the peoples are socialised differently within their own beliefs, and values.

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

Explanation: Adolescence is one of the important stages of human life, where they usually go through different physical, emotional, social and cognitive aspects. This is wrong that children across different cultures experience adolescence in a similar manner, actually, the culture is not the factor that influences adolescence, everyone has different social, emotional and cognitive aspects, so this would not be exactly similar.

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

Explanation: Work-in-progress portfolios are an effective tool for formative assessment-

- Throughout the process, teachers can involve students to assess a deeper and better way.
- By assessment, you will find his/her mistakes, and through this you will work to improve them in the right direction.
- In terms of tangible evidence, teachers will collect concrete and exact evidence to improve their students in the right manner.

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

Explanation: In terms of meaningful learning, if the students want to gain knowledge and mastery of the concepts and real-life examples, the students must be engaged with the active environment and can help to build their concepts with real-life examples. For this they can make their small group with their peers and can share and help each other.

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

Explanation: In the context of the given question, Sujata wants the first prize of cash, which shows the extrinsic motivation, extrinsic motivation is where you will attract external things like prizes or rewards. If Sujata does not show interest in the prizes and wants to dance only for her joy and interest, this would be called intrinsic motivation.

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

Explanation: In the context of the given question, usually the questions start with the 'How' will make the students brainstorm, where the students can think of the reason behind it and can use their creativity while speaking or

writing the answers. In the given option, "How does the author use symbolism in "To kill a Mockingbird"? In this, students can use their reasoning and understanding to describe this answer.

Note: The Question Starts with the Wh like who, what does not make the students to think in diverse ways. Only The question Starts with "How" will make the students think in diverse ways

28. Option (3) is correct.

Explanation: According to Jean Piaget's Theory of Cognitive Development, children actively construct their understanding of their world through their own learning experiences and interactions with the environment and people, rather than merely absorbing knowledge passively from the environment.

29. Option (3) is correct.

Explanation: In the context of the given question, Gilligan believed that Kohlberg's theory is biased because Kohlberg has only focused on males logic and rule.

30. Option (4) is correct.

Explanation: Here, the question talks about the different concepts and gives the wrong reason for the assertion.

In the assertion, this shows the teacher as the MKO (more knowledgeable others), where the teacher can give temporary help (Scaffolding) to students in the specific criteria (ZPD).

From the perspective of reason, according to the book "Frames of Mind" which was written by Howard Gardner, you cannot measure intelligence by calculating IQ.

Maths & Science

31. Option (4) is correct.

Explanation: The numbers are in ratio 2 : 3 : 4..... (given)

Let the common multiple be x .

\therefore The actual numbers will be $2x$, $3x$ and $4x$

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

$$= 33957... \text{ (given)}$$

$$\therefore (8 + 27 + 64) x^3 = 33957$$

$$\therefore 99 x^3 = 33957$$

$$\therefore x^3 = \frac{33957}{99}$$

$$\therefore x = \sqrt[3]{343}$$

So, numbers are :

$$2x = 2 \times 7 = 14$$

$$3x = 3 \times 7 = 21$$

$$4x = 4 \times 7 = 28$$

$$\therefore \boxed{x = 7}$$

\therefore Sum of 3 numbers

$$= 2x + 3x + 4x$$

$$= 14 + 21 + 28$$

$$= 63$$

\therefore Sum of 3 numbers = 63

32. Option (1) is correct.

Explanation: Let the 3 consecutive integers be $(x - 1)$, x , and $(x + 1)$

When taken in increasing order.

$$3(x - 1) + 5x + 2(x + 1) = 99$$

...(given)

$$\therefore 3x - 3 + 5x + 2x + 2 = 99$$

$$\therefore 10x - 1 = 99$$

$$\therefore 10x = 99 + 1$$

$$\text{So, } 10x = 100$$

$$\text{So, } x = \frac{100}{10}$$

$$\therefore \boxed{x = 10}$$

\therefore Original first integer

$$= x - 1 = 10 - 1 = 9$$

Original third integer

$$= x + 1 = 10 + 1 = 11$$

So, sum of integers is

$$\therefore 9 + 11 = \boxed{20}$$

33. Option (3) is correct.

Explanation: 1

(a) A rational number includes integers TRUE

As a rational number is a number that can be expressed as the ratio of two integers, in

which denominator cannot be zero.

\therefore All natural numbers, whole numbers as well as integers and the number zero are rationals.

(b) 0 (zero) is not a rational number: FALSE.

Refer to above explanation on rationals.

As '0' can be expressed as

$$0 = \frac{p}{q} = \frac{0}{1}; (1 \neq 0)$$

\therefore 0 is a rational number

(c) All fractions are rational numbers : TRUE.

This is because fractions are always ratio of positive integers.

where denominator $\neq 0$

For example, In $\frac{22}{7} : 7 \neq 0 \therefore \frac{22}{7}$

is a fraction and $\frac{22}{7}$ is a rational number

However $\frac{22}{7} = 3.14159.....$ is not

a rational number as it cannot be

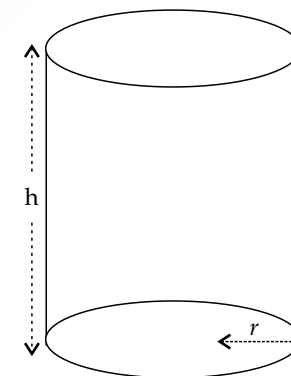
expressed in the form of $\frac{p}{q}$ and

$q \neq 0$.

34. Option (4) is correct.

Explanation: Curved surface area of right circular cylinder

$$= 4400 \text{ cm}^2 \quad \dots(1)$$



Circumference of base

$$= 110 \text{ cm}$$

Formula used:

Curved surface area of the right circular cylinder = $2\pi rh$

$$= (2\pi r) = 110 \text{ cm} \quad \dots(2)$$

$$(2\pi r)h = 4400 \quad \dots \text{from (1)}$$

$$\therefore 110 \times h = 4400 \quad \dots \text{from (2)}$$

$$\Rightarrow h = \frac{4400}{110} = 40$$

$$\therefore h = 40 \text{ cm} \quad \dots(3)$$

$$\therefore h = \frac{40}{100} = \frac{2}{5} \text{ meter}$$

$$2\pi r = 110 \quad \dots \text{from (2)}$$

$$\therefore r = 110 \times \frac{7}{22} \times \frac{1}{2} = \frac{35}{2} \text{ cm}$$

$$\therefore r = \frac{35}{2} \times \frac{1}{100} = \frac{7}{40} \text{ meter}$$

$$\boxed{r = \frac{7}{40}(\text{m})}$$

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

$$= \frac{22}{7} \times \frac{7}{40} \times \frac{7}{40} \times \frac{2}{5}$$

$$= \frac{77}{2000}$$

$$\boxed{\text{Volume} = 0.0385 \text{ m}^3}$$

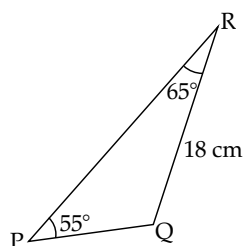
35. Option (4) is correct.

Explanation: In triangle PQR, $\angle R$

$$= 15^\circ \text{ and } PR > 18 \text{ cm}$$

Lets consider why other options cannot make an obtuse scalene triangle.

(Opt 1) :



Here, for ΔPQR to be obtuse scalene;

$$\angle P = 55^\circ < 90^\circ$$

$$\angle R = 65^\circ < 90^\circ$$

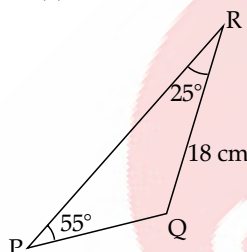
$$\therefore \angle Q \text{ must be } > 90^\circ$$

$$\text{However; } \angle Q = 180^\circ - (55^\circ + 65^\circ) = 60^\circ$$

$$\therefore \angle Q \neq 90^\circ$$

\therefore Option (1) is incorrect

Option (2) :



Here, in ΔPQR ,

$$\overline{PR} = \overline{RQ} = 18 \text{ cm (given)}$$

\therefore It is an isosceles triangle

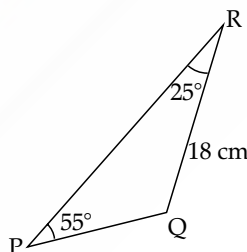
$$\therefore \angle P = \angle Q = 55^\circ$$

$$\text{However; } \angle Q = 180^\circ - (55^\circ + 35^\circ) = 90^\circ$$

$$\text{Since, } \angle P \neq \angle Q \text{ and } \angle Q \neq 90^\circ$$

\therefore Option (2) is incorrect

Option (3) :



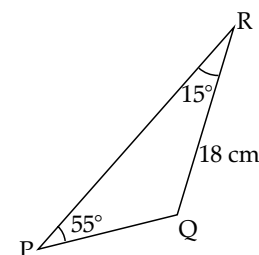
Here, again ΔPQR becomes an

isosceles Δ as $\overline{PQ} = \overline{QR}$

However; $\angle P \neq \angle R$

\therefore Option (3) is incorrect

Option (4) :



Here, in ΔPQR ,

$$\angle Q = 180^\circ - (55^\circ + 15^\circ) = 110^\circ$$

$$\angle Q > 90^\circ$$

$$\text{also } \angle P < 90^\circ \angle R < 90^\circ$$

Also, side opposite to the largest angle is the greatest.

\therefore opt(4) is correct

36. Option (4) is correct.

Explanation: Piaget was a Swiss psychologist known for his work in developmental psychology, particularly the study of cognitive development in children. He introduced the term 'Schema' to describe mental structures or frameworks that individuals use to organise and interpret information.

37. Option (2) is correct.

$$\text{Explanation: } \frac{x}{y} = \left(\frac{-1}{3}\right)^{-3} \div \left(\frac{2}{3}\right)^{-4}$$

$$= (-3)^3 \div \left(\frac{3}{2}\right)^4 \left\{ \text{using } a^n = \frac{1}{a^n} \right\}$$

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

$$\left\{ \text{using } \frac{p}{q} \div \frac{a}{b} = \frac{p}{q} \times \frac{b}{a} \right\}$$

$$= \frac{-2^4}{3} = \frac{-16}{3}$$

$$\therefore \frac{x}{y} = \frac{-16}{3}$$

$$\left[\frac{x}{y} + \frac{y}{x} \right]^{-1} = \left[\frac{-16}{3} + \left(\frac{-3}{16} \right) \right]^{-1}$$

$$= \left[-\left(\frac{16}{3} + \frac{3}{16} \right) \right]^{-1}$$

$$= \left[-\frac{(256+9)}{48} \right]^{-1}$$

$$= \left[\frac{-265}{48} \right]^{-1}$$

$$\left[\frac{\frac{x}{y} + \frac{y}{x}}{\frac{y}{x}} \right]^{-1} = \frac{-48}{265}$$

38. Option (1) is correct.

Explanation:

Given, $A = -2x^2 + 12x$

$B = 3x^2 - 8x + 11$

$C = -4x^2 + 17$

$D = x^2 - x - 3$

$A + B + C - D$

$= (-2x^2 + 12x) + (3x^2 - 8x + 11) + (-4x^2 + 17) - (x^2 - x - 3)$

$\therefore (-2x^2 + 3x^2 - 4x^2 - x^2)$

$+ (12x - 8x + x) + (11 + 17 + 3)$

$\therefore -4x^2 + 5x + 31$

$\therefore A + B + C - D$

$= -4x^2 + 5x + 31$

coefficient of $x^2 = -4$

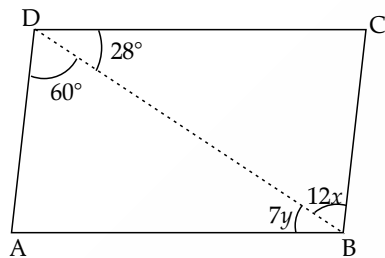
coefficient of $x = 5$

$\therefore -4 + 5 = \boxed{1}$

39. Option (1) is correct.

Explanation:

In adjoining figure;



$\angle B = \angle A$

i.e. $\angle ABC = \angle ADC$

(\because Opposite angles of parallelogram are equal)

$\therefore 12x + 7y = 60^\circ + 28^\circ = 88^\circ$

$\therefore 12x + 7y = 88^\circ \dots (i)$

Also $\angle BAD + \angle ADC = 180^\circ$

{ \because Supplementary angles in a parallelogram}

$\Rightarrow \angle BAD + 88^\circ = 180^\circ$

$\therefore \angle BAD = 180^\circ - 88^\circ = 92^\circ$

In $\triangle ABD$,

$\angle DAB + \angle ABD + \angle BDA = 180^\circ$

(Sum of angles in a triangle)

$\therefore 92^\circ + 7y + 60^\circ = 180^\circ$

$7y + 152^\circ = 180^\circ$

$\Rightarrow 7y = 28^\circ$

$\therefore y = 4^\circ \dots (2)$

Putting the value of y in equation (1),

$\therefore 12x + 7(4^\circ) = 88^\circ$

from (1) & (2)

$\Rightarrow 12x + 28^\circ = 88^\circ$

$\Rightarrow 12x = 88^\circ - 28^\circ = 60^\circ$

$\Rightarrow x = \frac{60^\circ}{12^\circ} = 5^\circ$

So, $x = 5^\circ \dots (3)$

$\therefore 2x + 3y = 2(5^\circ) + 3(4^\circ)$

from (2) & (3)

$= 10^\circ + 12^\circ$

$2x + 3y = 22^\circ$

40. Option (3) is correct.

Explanation: 1.9789

$x = 1.011 + 10.11 - 12.101 + 0.1011$

$$\begin{array}{r} 01.0110 \\ + 10.1100 \\ \hline 00.0111 \\ \hline 11.2221 \end{array}$$

Now, $11.2221 - 12.101$

$x = -0.8789$

Let y be added to x to get 1.1

$\therefore x + y = 1.1$

$\Rightarrow y = 1.1 - (-0.8789)$

$= 1.1 + 0.8789$

So, $y = 1.9789$

41. Option (1) is correct.

Explanation: $x = 9$ and $y = 5$

For number 9471 x 9y2 to be divisible by 72, it should be divisible by both 9 & 8

..... { $\because (9, 8)$ is a coprime pair and $9 \times 8 = 72$ }

9471 x 9y2 is divisible by 9 if

$(9 + 4 + 7 + 1 + x + 9 + y + 2)$ is divisible by 9.

.... {by divisibility rule of 9}.

i.e. $32 + x + y$ is divisible by 9

$\therefore 32 + x + y = 36$ or $32 + x + y = 45$

{ $\because 36$ and 45 are numbers greater than 32 which are divisible by 9}

$\therefore x + y = 4$ or $x + y = 13$

from the given options; option (1)

$x = 9$ $y = 5$; $x + y \neq 4$ & $x + y \neq 13$

all the rest options follow $x + y = 13$

$\therefore x = 9, y = 6$ is incorrect.

42. Option (2) is correct.

Explanation:

$p^3x + p^2(x - y) - p(y + z) - z$ (given)

$= [p^3x + p^2(x - y)] - [p(y + z) + z]$

... grouping the terms.

$= p^3x + p^2x - p^2y - py - pz - z$

$= p^3x - p^2y - pz - px^2 - py - z$

.... rearranging terms

$= p(xp^2 - py - z) + (p^2x - py - z)$

$= (p + 1)(xp^2 - py - z)$

\therefore One of the factors of the given polynomial is $(p^2x - py - z)$

43. Option (1) is correct.

Explanation: data : 30, 8, 7, 3, 17, 15, 21, 24, 29, 23

Median is the average of middlemost numbers when the data is arranged in ascending order.

Data: 3, 7, 8, 15, 17, 21, 23, 24, 29, 30

\therefore As there are 10 elements

\therefore Median is average of 5th and 6th elements

$\therefore \text{Median} = \frac{17 + 21}{2} = \frac{38}{2} = 19$

$\therefore x = 19$

When we replace 3 by 33 and 8 by 17 in the given data;

the data in ascending form will be :

7, 15, 17, 18, 21, 23, 24, 29, 30, 33

$\therefore \text{Median} = \frac{21 + 23}{2} = \frac{44}{2} = 22$

$\therefore y = 22$

$\therefore \text{Difference} = y - x = 22 - 19 = 3$

$\therefore y - x = 3$

44. Option (2) is correct.

Explanation: Consider the first data

(a) Heights of participants in an athletics meet.

On the x axis we can have the name of participants which is non numerical.

On y axis we plot the height of participants.

This is discrete, discontinuous data.

We can use the line graph or vertical bar graph to represent this.

(b) Number of passengers boarding the train from 9.00 am to 9 p.m. at a station.

On x axis, we have various time slots from 9.am to 9 p.m. This data set is continuous.

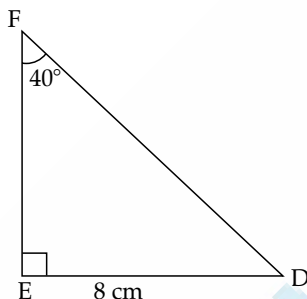
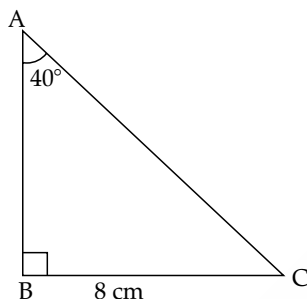
On y axis, \Rightarrow we have the number of passengers corresponding to particular time slot.

We necessarily use a histogram to represent this.

\therefore The intention of the teacher is to teach the use of histograms for data representation.

45. Option (2) is correct.

Explanation:



In $\triangle ABC$ and $\triangle FED$

$\angle BAC = \angle FED = 40^\circ \dots$ (given)

$\angle ABC = \angle FED = 90^\circ \dots$ (given)

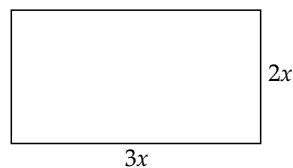
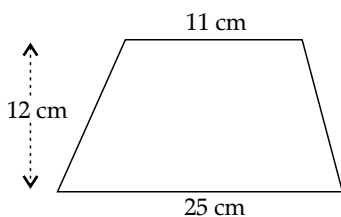
Side (BC) = side (ED) (given)

$\therefore \triangle ABC \cong \triangle FED \dots$ by AAS congruency test

AAS Test : If two triangles have two equal angles and a side adjacent to only one of the angles that are equal, then the two triangles are congruent by AAS of congruency.

46. Option (1) is correct.

Explanation:



$$\text{Area of trapezium} = \frac{1}{2} \times$$

(sum of sides parallel \times height)

$$= \frac{1}{2} \times (11 + 25) \times 12$$

$$\frac{1}{2} \times 36 \times 12 = 18 \times 12 = 216$$

$$\therefore \text{Area of trapezium} = 216 \text{ cm}^2$$

$$\text{Area of rectangle} = 3x \times 2x$$

{ \therefore Sides in ratio 2 : 3; x be in a common factor }

$$= 6x^2$$

According to question,

$$\text{Area of trapezium} = \text{area of rectangle}$$

$$\Rightarrow 6x^2 = 216$$

$$\therefore x^2 = \frac{216}{6} = 36$$

$$\therefore x = +6$$

$$\therefore x = 6$$

$$\therefore \text{Perimeter of rectangle} = 2(\text{length} + \text{breadth})$$

$$= 2(3 \times 6 + 2 \times 6)$$

$$= 2(18 + 12)$$

$$= 2 \times 30 = 60 \text{ cm}$$

47. Option (4) is correct.

Explanation: In this scenario the concept of least common multiple is important because one wants to find the smallest distance that each person can walk and at the same time make sure they cover the same total distance.

LCM is used when dealing with multiples of numbers. In this case, the step measures are the lengths of the steps taken by each person and we need to find a distance where the step measures become multiples of the same number.

LCM helps identify the smallest common multiple for the given step measures.

48. Option (1) is correct.

Explanation:

(a) **Teaching learning process shall become joyful:** Correct
A sports naturally brings an element of fun and enjoyment, making learning more engaging and interactive.

(b) **It is not possible to use sports for teaching mathematics:** Incorrect

This statement is incorrect because numerous sports activities can be designed to teach various mathematical concepts. eg:

Kho-Kho: Concept of speed, time, distance:

Tug-of-war: Concept of force, motion.

Mallakhamb: Geometry (body positions & shapes formed during exercises), symmetry, balance etc.

(c) **It is time consuming and hence should be avoided:** Incorrect, because integrating sports can actually enhance. Students' engagement and understanding and it is not necessarily time consuming.

(d) **Apart from popular sports, there are many indigenous sports that can be used in teaching mathematics:** Correct

Refer to explanation of option (b).

\therefore Option (a) and (d) are correct.

49. Option (2) is correct.

Explanation: A pair of angles is said to be supplementary if the measure of the angles add upto 180°

let m & p be supplementary angles

$$(m > p) \dots \therefore m + p = 180^\circ \dots (1)$$

$$m - p = 20^\circ \dots (2) \text{ (given)}$$

$$\therefore 2m = 200 \dots \text{(Adding (1) \& (2)}$$

$$m = 100^\circ$$

Putting the value of m in equation (1),

$$\therefore p = 180^\circ - 100^\circ \dots \text{from (1)}$$

$$\therefore p = 80^\circ$$

$$\therefore 3p - 50^\circ = 3(80^\circ) - 50^\circ$$

$$= 240^\circ - 50^\circ = 190^\circ$$

$$\therefore 3p - 50^\circ = 190^\circ$$

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

Explanation: Ram has good memory but lacks conceptual understanding.

This statement suggests that Ram can recall definitions accurately (indicating his good memory) but may not fully understand or apply the concepts when presented with specific numbers. It highlights a potential gap in conceptual understanding rather than lack of practise.

Clearly Ram doesn't have analytical skills. Also there is little connection between concentration and ability to analyze.

\therefore Option (2), (3) and (4) are incorrect.

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

Explanation:

Option (a): It provides to an opportunity for students engage in proofs and examining patterns.

This statement is **valid** because engaging in proofs requires students to think logically and critically. A student must identify and analyze information, construct arguments and evaluate conclusions.

\therefore It fosters critical thinking and logical reasoning.

Option (c): Students use appropriate strategies for solving various new problems.

This statement is **valid** because mathematics involves not just rote memorization but the development of problem solving-strategies. When a student encounters a new mathematical challenge, he/she is engaged in critical thinking, logical reasoning and develops creative problem solving strategies.

Option (b) Students reproduce formulae and symbols during problem solving.

This statement is **Not valid** because mathematics is not only about memorizing formulae and symbols. It involves understanding the underlying con-

cepts, logic and use these accordingly.

Hence, option (a) and (c) are correct.

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

Explanation: x varies inversely as y ... given

$$\therefore x \propto \frac{1}{y}$$

$$x = \frac{k}{y}$$

(k is constant of inverse variation)

$$k = x \times y \quad \dots(1)$$

$$x = 3.5, y = 2.4 \quad \dots(\text{given})$$

$$\therefore k = 3.5 \times 2.4 \quad \dots(2)$$

$$\text{where } x = 5.6, y = \frac{k}{x} = \frac{3.5 \times 2.4}{5.6}$$

$$y = \frac{35 \times 24}{560}$$

(Multiply & divide by 100)

$$y = 1.5$$

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

Explanation:

$$\text{Total fruits} = 44 + 56 + 42 + 30 + 38 = 210$$

$$\text{Apples} = 56$$

\therefore In a pie chart; all the angles of the sector should sum to 360°

\therefore Angle of sector representing Number of apples/Total number of fruits $\times 360^\circ$

$$= \frac{56}{210} \times 360^\circ = 96^\circ$$

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

Explanation:

$$\text{Selling price SP} = ₹ 324$$

Discount = $d = 28\%$ on marked price (MP)

$$\text{Cost price} = \text{CP} = ₹ 300$$

$$\therefore 72\% (\text{MP}) = 324$$

$$\therefore \text{MP} = \frac{324 \times 100}{72}$$

$$\text{MP} = ₹ 450$$

$$\therefore \text{If } d = 18\%$$

$$\text{SP} = (\text{MP}) - 18\% (\text{MP}) =$$

$$\text{SP} = 82\% \text{ MP}$$

$$= \frac{82}{100} \times 450$$

$$\text{So, SP} = ₹ 369$$

$$\therefore \text{Profit \%} = \left(\frac{\text{SP}}{\text{CP}} - 1 \right) 100$$

$$= \left(\frac{369}{300} - 1 \right) \times 100$$

$$= (1.23 - 1) 100 = 23\%$$

$$\text{Profit} = 23\%$$

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

Explanation: Let the two rational numbers be x and y

$$y = \frac{-5}{2}$$

$$x \times y = \frac{-40}{3}$$

$$\therefore x \times \frac{-5}{2} = \frac{-40}{3}$$

$$\therefore x = \frac{-40}{3} \times \frac{-2}{5} = \frac{16}{3}$$

$$\therefore \text{reciprocal} = \frac{1}{x} = \frac{3}{16} \approx \frac{1}{5.33}$$

We need to find where $\frac{1}{5.33}$ lies

Lets check

$$\text{Option (1): } \frac{1}{5} \text{ and } \frac{1}{4}$$

Clearly this is incorrect as

$$5.33 > 5 > 4$$

$$\text{and } \frac{1}{4} > \frac{1}{5} > \frac{1}{5.33}$$

$$\text{Option (2) } \frac{1}{4} \text{ and } \frac{1}{3}$$

Clearly this is incorrect as;

$$5.33 > 4 > 3 \text{ and } \frac{1}{3} > \frac{1}{4} > \frac{1}{5.33}$$

$$\text{Option (3): } \frac{3}{20} \text{ and } \frac{9}{50}$$

This too is incorrect.

Here, by approximation;

$$\frac{3}{20} \approx \frac{1}{6.66} \text{ and } \frac{9}{50} \approx \frac{1}{5.55}$$

$$\text{as } 6.66 > 5.55 > 5.33$$

$$\therefore \frac{1}{5.33} > \frac{1}{5.55} > \frac{1}{6.66}$$

$$\text{Option (4): } \frac{9}{50} \text{ and } \frac{1}{5}$$

This option is correct.

$$\text{By approximation; } \frac{9}{50} \approx \frac{1}{5.55}$$

$$\text{as } 5.55 > 5.33 > 5$$

$$\therefore \frac{1}{5} > \frac{1}{5.33} > \frac{1}{5.55}$$

$$\text{as } \frac{1}{5.33} \approx \frac{3}{16} \text{ and } \frac{1}{5.55} \approx \frac{9}{50}$$

$$\frac{1}{5} > \frac{3}{16} > \frac{9}{50}$$

\therefore reciprocal of second number
lies in between $\frac{1}{5}$ and $\frac{9}{50}$

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

Explanation: In a polyhedron;

Vertices = $V = 10$

Edges = $E = 15$ (given)

Faces = $F = x$

By Euler's formula;

$$F + V = E + 2$$

$$\therefore F = (E + 2) - V$$

$$= (15 + 2) - 10$$

$$F = 7$$

$$\therefore x = 7$$

$$\therefore 3x - 12 = 3(7) - 12 = 9$$

$$\therefore 3x - 12 = 9$$

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

Explanation: Student is able to understand concept of percentage but is unable to understand percentage of which quantity is to be found.

Here % decrease

$$= \frac{28,000 - 26,500}{20800} \times 100\%$$

Clearly the student has solved it incorrectly.

\therefore Option (4) is ruled out.

Let us analyze other options.

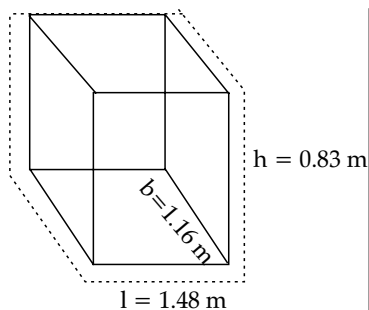
Option (1) is clearly incorrect as the student knows the concept of percentage. He has used the correct method of solving however the numerator is incorrect.

Option (2) is incorrect because a silly mistake might involve a computational error, but here, the student approach demonstrates a conceptual error.

Therefore option (3) is correct i.e. The student should have understood the concept of percentage, but is not able to understand percentage of which quantity is to be found.

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

Explanation:



Firstly we subtract the thickness from the corresponding external dimensions to obtain the dimensions of internal area

$$\therefore \text{Inner length of open box} = 1.48 - (2 \times 0.03) = 1.42 \text{ m}$$

$$\text{Inner breadth of open box} = 1.16 - (2 \times 0.03) = 1.10 \text{ m}$$

$$\text{Inner height of open box} = 0.83 - 0.03 = 0.8 \text{ m}$$

Now, area of inner surface

$$= 2(lb + bh + hl) - lb$$

$$= 2(bh + hl) + lb$$

$$= 2[1.1 \times 0.8 + 0.8 \times 1.42] + (1.42 \times 1.1)$$

$$= 2[0.88 + 1.36] + 1.562$$

$$= 5.594 \text{ m}^2$$

$$\therefore \text{Cost of painting inner surface} = 5.594 \times 150 = ₹ 839.1$$

$$\text{Total cost} = ₹ 839.1$$

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

Explanation: Taylors abacus offers several advantage for visually challenged students. A student is encouraged for mental calculations, reducing dependence on visual representations of numbers.

Here student use their fingers to move the beads on abacus, bypassing the need of sight.

Therefore Taylor's abacus is best teaching learning resource for visually impaired students.

Geogebra, computer and spread sheets make use of elements like graph diagram, screen reading software which poses a challenge for the visually challenged students.

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

Explanation: Disposition towards Mathematics

Option (1) Disposition towards Mathematics refers to a student's attitude, beliefs and motivation towards mathematics. While it influences a students

engagement and learning, it **cannot be considered** as a core dimension of assessment of mathematics learning.

Option (2): Mathematical reasoning:

This involves a students ability to think logically, make connections and apply mathematical concepts in problem solving. Hence it is considered as a core dimension of assessment of mathematics learning.

Option (3) Communication:

This dimension assesses a students ability to express mathematical ideas clearly, both in written and oral form. It includes the ability to communicate mathematical reasoning. Solutions and interpretations effectively.

Therefore it is considered as a core dimensions of assessment of mathematics learning.

Opt (4) Patterns and Procedures:

This dimension involves understanding and applying mathematical patterns, relationships and procedural knowledge.

Understanding patterns and applying procedures are integral parts of analyzing, problem-solving and forming logical connections. Therefore it is considered as a core dimension of assessment of mathematics learning.

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

Explanation: Using the senses to gather information is NOT indicative of the hypothesizing skill. Hypothesizing involves forming educated guesses or explanations based on observations and existing knowledge, while using the senses is more related to the skill of observation rather than hypothesis formulation.

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

Explanation: A fact is an observation that has repeatedly been found to be true, while a law is a statement that describes a consistent and universal relationship observed in nature. A theory, on the other hand, is a well-substantiated explanation of some aspect of the natural world.

63. Option (4) is correct.

Explanation: Yellow vein mosaic of bhindi is caused by a Virus, while rust of wheat and citrus canker are caused by fungi and bacteria, respectively. Citrus canker, caused by the bacterium *Xanthomonas citri*, affects the leaves, twigs and fruit of citrus plants causing the leaves to drop and unripe fruit to fall to the ground.

64. Option (1) is correct.

Explanation: Students are likely to employ classifying (a) as they categorize the objects based on shape and observing (b) as they gather information about the manner of movement. Inductive reasoning (c) and measuring (d) are less likely to be employed in this context.

65. Option (3) is correct.

Explanation: (a) Slaked lime - Calcium hydroxide
(b) Table salt - Sodium chloride
(c) Limestone - Calcium carbonate
(d) Caustic soda - Sodium hydroxide
(e) Quick lime - Calcium oxide
(f) Baking soda - Sodium bicarbonate

66. Option (2) is correct.

Explanation: (a) "The electroscope leaves move further apart." This is an observation because it describes a measurable and directly observable phenomenon.
(b) "Both the electroscope leaves acquire similar charge." This is an inference because it goes beyond direct observation. It proposes a cause-and-effect relationship based on the observation in (a).
(c) "The negative charge passes on to the electroscope causing its leaves to move further apart." Similar to (b), this statement is an inference. It suggests a cause-and-effect relationship based on the observed movement of the electroscope leaves in (a).

67. Option (2) is correct.

Explanation: The stars' apparent motion from east to west is due to the Earth's rotation from west to east. This rotation causes the observer to perceive the stars' movement in the opposite direc-

tion, providing a correct explanation for the assertion.

68. Option (1) is correct.

Explanation: The box is at rest on a horizontal table, so the gravitational force pulling it downward is balanced by the normal force exerted by the table upward. In this equilibrium state, the net force is zero, and a pair of balanced forces acts on the box.

69. Option (2) is correct.

Explanation: The statement "science promotes skepticism" means that scientific inquiry encourages a critical and questioning attitude. Scientists rely on empirical evidence to support or refute claims, fostering skepticism toward unverified or unsupported assertions.

70. Option (3) is correct.

Explanation: X derived from petroleum is Bitumen, and Y derived from coal is Coal Tar. Both are thick, black liquids used for road metalling. Option (3) correctly identifies the sources of X and Y in relation to Bitumen and Coal Tar.

71. Option (3) is correct.

Explanation: Newton's theory of gravitation is regarded as excellent because it successfully explains a wide range of observations with a simple set of principles, emphasizing the elegance and efficiency of the theory in making accurate predictions with minimal assumptions.

72. Option (3) is correct.

Explanation:
(a) Rose - Vegetative propagation
(b) Yeast - Budding
(c) Ferns - Spore formation
(d) Spirogyra - Fragmentation
The correct pairing of plants with their modes of asexual reproduction is provided by option (3).

73. Option (3) is correct.

Explanation: Rayon, also called viscose and commercialised in some countries as sabra silk or cactus silk, is a semi-synthetic fiber, made from natural sources of regenerated cellulose, such as wood and related agricultural products. It has the same molecular structure as cellulose.

74. Option (3) is correct.

Explanation: Introducing the concept of deficiency along with the definition of a balanced diet sets the foundation for understanding deficiency diseases. It establishes the importance of proper nutrition and paves the way for discussing specific nutrients and their roles in preventing deficiency diseases.

75. Option (3) is correct.

Explanation: A well-constructed matching item should have a unique and clear correspondence between entries in columns A and B. Having more than two plausible entries for a single item in column A indicates a poorly constructed item, making it challenging for students to provide a precise match.

76. Option (1) is correct.

Explanation: The kinetic energy (KE) of a body is given by the formula $\frac{p^2}{2m}$, where p is the linear momentum and m is the mass of the body.

77. Option (2) is correct.

Explanation: Rusting of iron involves a chemical reaction between iron and oxygen, and it is not a reversible reaction. It is very exothermic but heat is lost before the temperature increases because the reaction is very slow, and while it can occur at room temperature, it is not limited to that condition.

78. Option (2) is correct.

Explanation: Non-metals will normally not react with water, however, non-metal oxides will react with water to form acids.

79. Option (2) is correct.

Explanation: Introducing the concept of chemical reactions through discussions on real-life examples engages students and makes the subject more relatable. This approach encourages curiosity and helps students connect theoretical concepts to practical observations.

80. Option (3) is correct.

Explanation: In a sitar (X), sound is produced by stretched strings; in a harmonium (Y), it is the stretched membrane that

vibrates; and in a dholak (Z), the vibrating part that produces sound is the air column. Option (3) correctly identifies these musical instruments.

81. Option (1) is correct.

Explanation: Macronutrients derived from the soil and needed in large amounts are nitrogen (N), phosphorus (P), potassium (K), sulphur (S), calcium (Ca), and magnesium (Mg). Legumes are the exception because they fix N from the air. The remaining essential nutrients derived from the soil are referred to as micronutrients, because they are needed in small amounts. They are boron (B), chloride (Cl), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo), nickel (Ni) and zinc (Zn). Micronutrients are important for plant growth, as plants require a proper balance of all the essential nutrients for normal growth and optimum yield.

82. Option (3) is correct.

Explanation: Rehearsing the demonstration is actually a desirable practice, as it ensures the smooth execution of the experiment. Planning, supplementing with explanations, following up with discussion, and emphasizing linkages are all positive aspects of conducting a classroom.

83. Option (3) is correct.

Explanation: The force of gravity is responsible for the ball's motion, and its magnitude remains the same during both upward and downward motion.

84. Option (1) is correct.

Explanation: Seed dispersal typically involves the movement of seeds away from the parent plant, but this process doesn't directly lead to the creation of new genetic varieties. The genetic diversity and the creation of new varieties usually result from processes like mutation and genetic recombination.

85. Option (4) is correct.

Explanation: Periscope: A periscope is a device that allows an observer to see objects that are not in their direct line of sight. It typically consists of a system of mirrors or prisms to reflect light

and bring the image to the viewer's eyes.

Reflection: The principle involved in a periscope is reflection. Mirrors inside the periscope reflect the light, redirecting it around corners and obstacles, so that the observer can see objects that are not directly in their line of sight.

86. Option (2) is correct.

Explanation: When three resistances of $\left(\frac{1}{3}\right) \Omega$ each are connect-

ed, we can calculate the maximum and minimum resistance as follows:

Maximum resistance is obtained when the resistances are connected in series:

$$R_{\max} = R_1 + R_2 + R_3 \\ = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1\Omega$$

Minimum resistance is obtained when the resistances are connected in parallel:

$$\frac{1}{R_{\min}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} = 3 \\ R_{\min} = \frac{1}{3} \Omega$$

Now, we find the difference between the maximum and minimum resistance:

$$\text{Difference} = R_{\max} - R_{\min} \\ = 1 - \frac{1}{3} = \frac{2}{3} \Omega$$

87. Option (1) is correct.

Explanation: Acid rain is caused by the release of certain pollutants into the atmosphere, which then react with water vapor to form acids. The primary pollutants responsible for acid rain are sulfur dioxide (SO₂) and nitrogen oxides (NO_x), which include nitric oxide (NO).

88. Option (3) is correct.

Explanation: Dried raisins swell in water due to osmosis, where water moves from an area of lower solute concentration to higher concentration. The plant cell wall being selectively permeable is accurate, but the primary reason is osmotic movement across the raisin cell membrane, equalizing solute concentrations and causing swelling.

89. Option (1) is correct.

Explanation: In most species of frogs, fertilization is external. The male frog grabs the female's back and fertilizes the eggs as the female frog releases them. Female fish release eggs into water and male fish releases sperms. Sperms swim randomly in water and comes in contact with the eggs. Since fertilization occurs in water, outside the female body, it is called external fertilization. Starfish is an echinoderm and fertilization occurs externally. Most of the starfish species release their eggs directly into the water. The male starfish then releases sperms over the secreted eggs and fertilizes them to form zygote.

90. Option (4) is correct.

Explanation: Iodine is required for the production of thyroxine hormone, which is essential for the transformation of tadpoles into frogs. Tadpoles may develop abnormally or even die if there are insufficient levels of iodine in the water, which could affect the synthesis of the hormone thyroxine. Iodine must therefore be present in water to ensure appropriate transformation of tadpoles into healthy adult frogs.

Language-I: English

91. Option (2) is correct.

Explanation: A noun is a word that represents a person, thing, concept, or place. In the given sentence, time is a noun because it indicates the measurement of moments or the forward progression of events. While 'around' is an adverb, that describes something that's on every side of you. Hence, option (2) is correct.

92. Option (4) is correct.

Explanation: The passage clearly states the presence of the daughter, so the narrator is definitely one of the parents, who reminisces her childhood days through her daughter. Thus, from the given anecdote it is apparent that the characters share the relationship of mother-daughter. Hence, option (4) is correct.

93. Option (4) is correct.

Explanation: "Admonish" means to reprimand or scold. The act of plucking one of the ixora flowers actually left the narrator upset and confused, she wanted to reprimand / scold his friend. Whereas other options are opposites to the given word. Hence, option (4) is correct.

94. Option (1) is correct.

Explanation: In the passage, "to be transported in time" is used when the narrator reflects on her childhood upon seeing her daughter's excitement. This phrase metaphorically means revisiting past experiences in one's mind. It encapsulates the idea of mentally journeying back to earlier moments, thus aligning with "recollect memories of the past."

95. Option (2) is correct.

Explanation: The phrase 'dead tried' refers to a state of complete exhaustion, and all options except (2) reveal the same meaning. 'To feel refreshed' is the opposite. Hence option (2) is correct.

96. Option (3) is correct.

Explanation: In the analogy, cluster and bunch share the relationship of synonyms. In the same manner, 'puny' implies 'delicate'. Hence, option (3) is correct.

97. Option (3) is correct.

Explanation: According to the mother, it was not a good idea to taste the sweet nectar from flowers. This is because the secret that the girl shared with her mother took the mother back to her youth, when she had tasted the sweet nectar from flowers. Hence, option (3) is correct.

98. Option (1) is correct.

Explanation: The assertion that the child was excited to share a secret with the mother is correct, so is the reasoning that the mother was in disbelief and went down the memory lane. But R is not the correct explanation for A. Hence, option (1) is correct.

99. Option (2) is correct.

Explanation: It is untrue that the writer was left traumatised by the incident of tasting sweet nectar from flowers. It is apparent that while returning from school, the writer and her friend had indulged in the guilty pleasure of

tasting sweet nectar from flowers, and she is reminded of this through her daughter's secret. The writer wants her child to be connected to the sweet pleasures of nature because she decides to let her child enjoy the taste of sweet nectar. Therefore, (b) and (c) are correct and (a) is incorrect. Hence, option (2) is correct.

100. Option (3) is correct.

Explanation: The poet says that every day as he has his tea he sits at the window looking out. He sees Leerie the lamplighter goes by his street. He states that he does not want to follow the footsteps of his father, and wants to become like Leerie the lamplighter. He sits and wonders about the profession of lamplighting and the joy that it brings to everyone. Hence, option (3) is correct.

101. Option (2) is correct.

Explanation: The phrase 'the sun has left the sky' indicates the sun is no more, so it is evening. Hence, option (2) is correct.

102. Option (4) is correct.

Explanation: The pattern of lines 5-8 is : see/be, do/you. Thus, the rhyme scheme is aabb. Hence, option (4) is correct.

103. Option (1) is correct.

Explanation: The poet states 'for we are very lucky, with a lamp before the door'. This implies that he is lucky to have the light at night before his door. Hence, option (1) is correct.

104. Option (1) is correct.

Explanation: Leerie the lamplighter ensures that the poet's family has light before their door, but if it is occasional cannot be concluded. The poet evidently denies following the footsteps of his father, as he is fascinated by the profession of Leerie. He claims to be strong one day and along with Leerie, he wants to light lamps at everyone's doors. Therefore, (a) and (b) are incorrect and (c) is correct. Hence, option (1) is correct.

105. Option (2) is correct.

Explanation: If Leerie by profession is a lamplighter, then the father is a banker. Hence, option (2) is correct.

106. Option (1) is correct.

Explanation: Sign language is a natural language, meaning that it emerged through an abstract, protracted aging process. Sign languages have their own grammar, and has many varieties. Therefore, it is not true that sign language does not have grammar. Hence, option (1) is correct.

107. Option (3) is correct.

Explanation: Cluster vocabulary refers to a groups of words based on a common theme. Word webs are mind maps that promote active learning and help students develop higher-order thinking skills. A thematic set are the words used for a given theme. Word groups/clusters are groups of words based on a common theme. Thus, thematic vocabulary is correct. Hence, option (3) is correct.

108. Option (3) is correct.

Explanation: Procedural knowledge in learning grammar refers to understanding how a grammatical form functions in use and applying the same. So knowing how to do the grammatical item is the objective. Hence, option (3) is correct.

109. Option (1) is correct.

Explanation: Scanning is reading rapidly in order to find specific facts. Skimming is a strategic, selective reading method in which you focus on the main ideas of a text. Study skills are often referred to as study strategies and academic skills and are considered as an effective approach to learning. Critical reading is a process of analyzing, interpreting and, sometimes, evaluating. So when a learner reads through a news item for a specific information, it is known as scanning. Hence, option (1) is correct.

110. Option (4) is correct.

Explanation: Multilingual policy refers to the process of teaching students who regularly engage with more than one language. Multilingual policy is the use of more than one language, either by an individual speaker or by a group of speakers. Language Acquisition is the process of learning and understanding a language by a child or adult.

Thus, the given example is a case of Multilingual policy. Hence, option (4) is correct.

111. Option (3) is correct.

Explanation: In this case, Tamil and Punjabi are the languages acquired (from her neighbourhood); while English comes under language learning. Hence, option (3) is correct.

112. Option (2) is correct.

Explanation: Mutual dictation is the process where pairs of student dictate to each other in order to complete a specific text. Thus, the given example is a case of mutual dictation. Hence, option (2) is correct.

113. Option (4) is correct.

Explanation: BICS (Basic interpersonal communication skills) refers to conversational fluency – the ability to talk about objects or experiences in face-to-face familiar contexts. The given example emphasizes on informal face-to-face conversation and interaction, so BICS (Basic interpersonal communication skills) is the correct choice. Hence, option (4) is correct.

114. Option (1) is correct.

Explanation: In the given example, the teacher teaches through critical language development. Hence, option (1) is correct.

115. Option (4) is correct.

Explanation: Reciprocal teaching is a cooperative learning strategy that aims to improve students' reading comprehension skills, here; students talk with their teachers about the substance and meaning of texts they just read. Hence, option (4) is correct.

116. Option (3) is correct.

Explanation: Remedial teaching primarily focuses on providing extra attention and tailored instruction to learners who struggle with certain aspects of language learning. It aims to address specific learning difficulties to improve the student's overall proficiency.

117. Option (3) is correct.

Explanation: Interlingual identification refers to a learner's recognition of similarities between their native language and the target (second) language they

are learning. This can involve identifying common linguistic elements, structures, or vocabulary.

118. Option (1) is correct.

Explanation: When a specific community within a larger region speaks a variation of a language, it is often referred to as a social dialect. This term reflects language differences attributable to social groups rather than geographic areas.

119. Option (1) is correct.

Explanation: Extensive reading involves learners reading texts for enjoyment and to develop general reading skills. It is not done for learning grammar. Hence, option (1) is correct.

120. Option (3) is correct.

Explanation: The primary aim of the Three Language Formula is to promote multilingualism in India and enable students to communicate effectively across the country. The Three Language Formula states that every student in India should learn three languages: two of which should be native Indian languages, including one regional language, and the third should be English. Hence, option (3) is correct.

भाषा-II: हिन्दी

91. विकल्प (1) सही है।

व्याख्या—मानव शब्द विशेषण नहीं है। मानव शब्द का विशेषण मानवीय होगा। जबकि अन्य शब्द विशेषण-विशेष्य के उदाहरण हैं जैसे- आध्यात्मिक दुनिया, रूपात्मक परिवर्तन, अँधेरे युग। मानव और अस्तित्व दोनों ही संज्ञा शब्द हैं। मानव-जातिवाचक संज्ञा और अस्तित्व-भाववाचक संज्ञा।

● **विशेषण-विशेष्य—**विशेषण वे शब्द हैं जो किसी संज्ञा या सर्वनाम शब्द की विशेषता को बताते हैं जबकि विशेष्य वे संज्ञा या सर्वनाम शब्द होते हैं जिनकी विशेषता को विशेषण प्रकट करता है।

92. विकल्प (4) सही है।

व्याख्या—उन्नति प्राप्त करने के लिए आवश्यक है कि मनुष्य अपनी कमियों को जान ले। अपनी यात्रा के आरम्भ में लोग अपनी प्रगति में बाधा डालने वाले सैंकड़ों व्यक्तिगत और सामाजिक कमियों का पता लगाते हैं।

93. विकल्प (1) सही है।

व्याख्या—‘अध्यात्म’ शब्द में ‘इक’ प्रत्यय लगाने पर ‘आध्यात्मिक’ शब्द बनेगा।

● **प्रत्यय—**यह वे शब्द होते हैं जो दूसरे शब्दों के अन्त में जुड़कर, अपनी प्रकृति के अनुसार, शब्द के अर्थ में परिवर्तन कर देते हैं।

94. विकल्प (4) सही है।

व्याख्या—गद्यांश के आधार पर कहा जा सकता है कि परिवर्तन मानव जीवन का सत्य है। जिस प्रकार मौसम परिवर्तित होता है उसी भाँति मानव जीवन में भी परिवर्तन आता रहता है। मानव संरचना में रूपात्मक परिवर्तन अब भी हो रहे हैं और भविष्य में भी होंगे।

95. विकल्प (1) सही है।

व्याख्या—आदिमानव ने भौतिक क्षेत्र में प्रगति की परन्तु आध्यात्मिक क्षेत्र में प्रगति नहीं कर सकता। अपनी उन्नति यात्रा के प्रारम्भिक चरण में सुदूर अतीत के अँधेरे युग में मानव ने अकेले भौतिक और मानसिक क्षेत्रों में प्रगति की। हम यह नहीं कह सकते कि उन आरंभिक मनुष्यों ने वास्तव में कोई महत्वपूर्ण आध्यात्मिक प्रगति की थी। हालाँकि उन्होंने जो भी उन्नति की, वह किसी भी तरह से महत्वहीन नहीं थी।

96. विकल्प (3) सही है।

व्याख्या—‘मानव’ शब्द में ‘ईय’ प्रत्यय और ‘अ’ उपसर्ग का प्रयोग संभव है।

जैसे:-

- अ + मानव = अमानव
- मानव + ईय = मानवीय
- **उपसर्ग—**वे शब्दांश जो किसी शब्द के पूर्व में जुड़कर उसके अर्थ में परिवर्तन कर देते हैं, उन्हें उपसर्ग कहते हैं।
- **प्रत्यय—**वे शब्दांश जो किसी शब्द के अन्त में जुड़कर उसके अर्थ में परिवर्तन कर देते हैं, उन्हें प्रत्यय कहते हैं।

97. विकल्प (2) सही है।

व्याख्या—मानव अस्तित्व त्रिपक्षीय है- भौतिक, मानसिक और आध्यात्मिक। अपनी यात्रा के प्रारंभिक चरण में सुदूर अतीत के अँधेरे युग में मानव ने अकेले भौतिक और मानसिक क्षेत्रों में प्रगति की।

98. विकल्प (4) सही है।

व्याख्या—‘उल्लेखनीय परिवर्तन’ से तात्पर्य महत्वपूर्ण परिवर्तन से है। मनुष्य भविष्य में ऐसे उल्लेखनीय परिवर्तनों से गुजरेगा जो आज के लोगों के लिए लगभग अपरिचित होंगे।

99. विकल्प (2) सही है।

व्याख्या—प्रगति प्राप्त करने का व्यवस्थित तरीका आदिमानवों के पास नहीं था। उन आदिमानवों ने सुख प्राप्त करने की अपनी सहज इच्छा से प्रेरित होकर भी इन खामियों के खिलाफ संघर्ष किया।

100. विकल्प (2) सही है।

व्याख्या—इस कविता का मुख्य स्वर देशभक्ति है क्योंकि यह कविता देश की राह में शीश न्यौछावर करने की भावना से ओत-प्रोत है जबकि इस कविता का मुख्य भाव या रस ओज है।

- ओज का तात्पर्य—वे काव्य जिसको पढ़ने या सुनने से हृदय में उमंग, उत्साह और ओज भाव का संचार होता है, उस काव्य को ओज गुण प्रधान काव्य कहा जाता है। ओज स्वर वीररस की कविता में विद्यमान होता है।

101. विकल्प (2) सही है।

व्याख्या—‘अंधकार’ समाधान का प्रतीक नहीं है क्योंकि समाधान किसी भी वस्तु का हल होता है।
अंधकार के प्रतीक—चुनौतियाँ, बुराई, निराशा।

102. विकल्प (3) सही है।

व्याख्या—समूह में भिन्न शब्द युग्म हार-विहार है क्योंकि अन्य सभी शब्द एक-दूसरे के विलोम हैं।

सही शब्द-युग्म—

- जय-पराजय
- प्रकाश-अंधकार
- सत्य-असत्य

103. विकल्प (1) सही है।

व्याख्या—कविता में सत्य पर सर्वाधिक बल दिया गया है। कवि ने सत्य के साथ बने रहने की बात कही है तथा बताया गया है कि सत्य की सदा विजय होती है।

104. विकल्प (4) सही है।

व्याख्या—कविता के अनुसार राही की विशेषता है कि वह हर तरह के मार्ग पर चले, उसे सफलता अवश्य एक दिन प्राप्त होगी।

105. विकल्प (1) सही है।

व्याख्या—कविता के अनुसार किसी भी स्थिति में स्वाभिमान बना रहना चाहिए। शीश कभी झुकना नहीं चाहिए।

106. विकल्प (1) सही है।

व्याख्या—संकेत भाषा एक प्रकार की स्वाभाविक भाषा होती है। बालक प्रारम्भ में अपने हाथों को हिला-डुला कर भी अपनी बात को सांकेतिक माध्यम द्वारा अभिव्यक्त करता है।

संकेत भाषा की विशेषताएँ—

- संकेत भाषा प्राकृतिक भाषा है।

- संकेत भाषा में व्याकरण भी विद्यमान होता है।

- संकेत भाषा के बहुत से प्रकार हैं।

107. विकल्प (3) सही है।

व्याख्या—शब्द संपदा के अधिगम की इस गतिविधि को थीम आधारित शब्दावली के रूप में जाना जाएगा।

108. विकल्प (1) सही है।

व्याख्या—व्याकरण शिक्षण के अधिगम में प्रक्रियात्मक ज्ञान व्याकरणिक तत्वों के नियमों को जानना है।

- प्रक्रियात्मक ज्ञान—यह ज्ञान किसी विशिष्ट कौशल या कार्य को करने का ज्ञान है।

109. विकल्प (1) सही है।

व्याख्या—एक शिक्षार्थी किसी विशिष्ट जानकारी प्राप्त करने के लिए समाचार पत्र के समाचार पढ़ती है। इस पठन को बारीकी से पठन कहेंगे क्योंकि शिक्षार्थी को उस समाचार पत्र से विशिष्ट जानकारी प्राप्त करनी है।

110. विकल्प (1) सही है।

व्याख्या—इस शिक्षणशास्त्रीय युक्ति को बहुभाषा शिक्षण के रूप में जाना जाता है।
● इसमें शिक्षार्थी कक्षा में अपनी-अपनी भाषा का उपयोग अभिव्यक्ति के दौरान कर सकते हैं।

111. विकल्प (3) सही है।

व्याख्या—श्रेया द्वारा जानी गई भाषाएँ—तमिल तथा पंजाबी भाषा अर्जन और अंग्रेजी भाषा अधिगम के अन्तर्गत आएगी।

112. विकल्प (2) सही है।

व्याख्या—पहली जोड़ीदार पहला वाक्य पढ़ती है और दूसरी जोड़ीदार उस वाक्य को लिखती है। यह क्रम निरन्तर जोड़ियों में चलता है। इस गतिविधि को पारस्परिक श्रुतलेख कहते हैं।

- पारस्परिक श्रुतलेख—सभी आपस में मिलकर और सुनकर एक साथ कार्य करते हैं। इससे भाषा शुद्धता का विकास होता है।

113. विकल्प (4) सही है।

व्याख्या—बुनियादी अंतरवैयक्तिक सम्प्रेषण कौशल का प्रयोग हम दिन-प्रतिदिन के लिए आमने-सामने की अन्तःक्रिया के लिए करते हैं।

114. विकल्प (1) सही है।

व्याख्या—अध्यापक अपने शिक्षार्थियों में समालोचनात्मक भाषा विकास करने की चेष्टा कर रही है।

115. विकल्प (1) सही है।

व्याख्या—पाठ्यवस्तु की विषयवस्तु पर संवाद किया जाता है जिससे समीपस्थ विकास का क्षेत्र सृजित होता है और

परिमाणतः पठन बोध में सुधार होता है, इस विधि को संरचनात्मक उपागम कहेंगे।

116. विकल्प (1) सही है।

व्याख्या—उपचारात्मक शिक्षण उन शिक्षार्थियों और अध्यापकों के लिए होता है जिन्हें अपने शिक्षण या अधिगम की युक्तियों को समझने और बदलने की आवश्यकता होती है।

117. विकल्प (2) सही है।

व्याख्या—शिक्षार्थी के निर्णय कुछ तो विभिन्न भाषाओं का अधिगम विभिन्न योग्यताओं का आधार या सम आश्वासन है, उन्हें अंतरभाषिक पहचान कहते हैं।

118. विकल्प (4) सही है।

व्याख्या—विशेष समुदाय द्वारा बोली जा रही मलयालम को क्षेत्रीय बोली के रूप में जाना जाएगा।

119. विकल्प (3) सही है।

व्याख्या—विस्तृत पठन का उद्देश्य नहीं है—सराहना बोध के लिए पठन
विस्तृत पठन के उद्देश्यः—
● व्याकरण अधिगम के लिए पठन
● आनन्द के लिए पठन
● एक्स्ट्रापोलेशन के लिए पठन

120. विकल्प (3) सही है।

व्याख्या—त्रिभाषा सूत्र में मातृभाषा/घर की भाषा/ क्षेत्रीय भाषा प्रथम भाषा के रूप में है। द्वितीय भाषा—हिंदी भाषा काव्यों में आधुनिक भारतीय भाषा या अंग्रेजी/तृतीय भाषा—हिंदी भाषी या गैर हिंदी भाषी राज्यों में अंग्रेजी या एक आधुनिक भारतीय भाषा हो।

Language-II: English

121. Option (4) is correct.

Explanation: Just as local and global are opposites; similarly, erratic (unpredictable) is opposite to consistent. Hence, option (4) is correct.

122. Option (4) is correct.

Explanation: It is clear that the loss of farmer's earnings is primarily due to extreme weather changes, this results in the rise of food prices, thus leading to reduced food consumption. This impacts the deteriorating nutritional security. Thus, the correct pattern is (c), (a), (d), (b). Hence, option (4) is correct.

123. Option (4) is correct.

Explanation: The farmers who have taken to household production are not impacted by inflation or malnutrition or food insecurity, thus they enjoy better

nutritional intake. Hence, option (4) is correct.

124. Option (3) is correct.

Explanation: The statement that a significant number of households can afford healthy food is proved incorrect in the first paragraph. It is untrue that household food production has limited impact on food inflation. It is nowhere stated that food insecurity is an occasional phenomenon in India. Thus, all statements are incorrect. Hence, option (3) is correct.

125. Option (2) is correct.

Explanation: The second paragraph testifies that with increase in household production, women enjoyed a normal body mass index; increased nutritional intake; increased food consumption in households. The only odd one is increase in the number of malnourished children. Hence, option (2) is correct.

126. Option (1) is correct.

Explanation: These changes are 'pronounced' implies 'noticeable' in remote areas. Hence, option (1) is correct.

127. Option (3) is correct.

Explanation: An adjective is a word that modifies or describes a noun or pronoun. 'Significant' is an adjective, modifying the noun 'number'. While 'own' is a pronoun. Hence, option (3) is correct.

128. Option (2) is correct.

Explanation: As discussed in the passage, some households have remained out of the crisis of food insecurity by adopting home production systems. Hence, option (2) is correct.

129. Option (2) is correct.

Explanation: The aspect that Abdul preferred classical music is incorrect, because as per the passage he preferred pop music, while Philip loved classical music. Other options are true for Abdul. He was a criminal from Algeria, who was quick-witted and supportive. Later, he is shown to have shared a close bond with his employer. Hence, option (2) is correct.

130. Option (4) is correct.

Explanation: The first statement confirms that 'Untouchable' is a French comedy movie. The theme is set upon two friends with different personalities and tastes. The movie is shown to be successful in France and Algeria. Therefore, (a) and (c) are correct and (b) is incorrect. Hence, option (4) is correct.

131. Option (4) is correct.

Explanation: The last paragraph states that despite living in two different countries with their families, what kept their bond strong was their warm friendship. Hence, option (4) is correct.

132. Option (1) is correct.

Explanation: Both luxury and opulence are synonyms, so the next pair 'sensation' will be synonymous to 'feeling'. Hence, option (1) is correct.

133. Option (3) is correct.

Explanation: An adjective is a word that modifies or describes a noun or pronoun. Here, 'working' is the adjective describing the noun 'relationship'. An adverb is a word that modifies (describes) a verb ("he sings loudly"), an adjective ("very tall"), another adverb. Here, 'quickly' is an adverb modifying the verb 'developed'. Hence, option (3) is correct.

134. Option (2) is correct.

Explanation: Abdul after quitting a life of crime in Algeria, shifted to France looking for work/employment. Hence, option (2) is correct.

135. Option (4) is correct.

Explanation: It is clearly stated in the passage that Philip lost the use of his arms and legs in an accident, so he needed a nurse to help him with day-to-day practical things in life. Hence, option (4) is correct.

136. Option (3) is correct.

Explanation: The primary aim of the Three Language Formula is to promote multilingualism in India and enable students to communicate effectively across the country. The Three Language Formula states that every student in India should learn

three languages: two of which should be native Indian languages, including one regional language, and the third should be English. So, the incorporation of classical language is incorrect. Hence, option (3) is correct.

137. Option (1) is correct.

Explanation: This activity, where students listen to a text and then work in groups to recreate it, is a combination of listening and writing tasks, but it closely resembles collective dictation, which involves listening and then writing what was heard. Hence, option (1) is correct.

138. Option (2) is correct.

Explanation: Any form of writing starts with brainstorming of ideas, jotting down the points, making an outline, followed by creating a draft, then editing and finalizing. Hence, option (2) is correct.

139. Option (1) is correct.

Explanation: In language learning, students should learn their mother tongue or a local language as their first language, which will further support the earning of second language. Hence, option (1) is correct.

140. Option (4) is correct.

Explanation: Elam's use of multiple languages in different contexts, adapting to his interlocutors, is known as code-meshing. It involves blending languages in communication. Interlanguage is a type of language used by second- and foreign-language learners in the process of learning a target language. Code-switching occurs when a speaker alternates between two or more languages, or language varieties, in the context of a single conversation or situation. Translingual may mean "existing in multiple languages" or having the same meaning in many languages. So, code-moving is correct. Hence, option (1) is correct.

141. Option (2) is correct.

Explanation: CALP stands for 'Cognitive Academic Language Proficiency'. It refers to the idea of developing second language skills is essential for academic learning. BICS (Basic interper-

sonal communication skills) refers to conversational fluency – the ability to talk about objects or experiences in face-to-face familiar contexts. Interlanguage is a type of language used by second- and foreign-language learners in the process of learning a target language. Thus, the correct answer is Cognitive Academic Language Proficiency. Hence, option (2) is correct.

142. Option (1) is correct.

Explanation: This process of considering opposite perspectives to deepen understanding is part of critical literacy, which involves analyzing and questioning texts and ideas.

143. Option (4) is correct.

Explanation: Realia refers to objects and material from everyday life, especially when used as teaching aids. Thus, the use of spoons, plates, utensils, pan in classroom refers to realia. Hence, option (4) is correct.

144. Option (2) is correct.

Explanation: Cognitive skills are the core skills that our brain uses to pay attention, read, think, learn, remember, and reason. Listening skills are skills that contribute to your ability to accurately receive information when communicating with others. The act of capturing the main idea of the lecture and thinking and remembering them while recreating involves cognitive skill. Hence, option (2) is correct.

145. Option (4) is correct.

Explanation: Learning outcomes describe the measurable skills, abilities, knowledge or values that students should be able to demonstrate as a result of a completing a course. Learning outcomes enable learners to attain the competencies in measurable terms. Hence, option (4) is correct.

146. Option (3) is correct.

Explanation: Translanguaging is the ability to move fluidly between languages and a pedagogical approach to teaching in which teachers support this ability. Thus, it is the moving from one language to another while

teaching learning languages. Hence, option (3) is correct.

147. Option (1) is correct.

Explanation: An extrapolative question is a question that needs imagination and prediction, thus it requires learners to move beyond the given inputs like reading text. So, to write a letter to the young girl would employ the use of imagination to understand what she must have gone through in her life. There is nothing as 'expressive questions' as such. A discursive question attempts to provide the reader with a balanced argument on a topic, supported by evidence. Hence, option (1) is correct.

148. Option (2) is correct.

Explanation: The primary aim of the Three Language Formula is to promote multilingualism in India and enable students to communicate effectively across the country. The Three Language Formula states that every student in India should learn three languages: two of which should be native Indian languages, including one regional language, and the third should be English. So, the transition from home language to any two languages is correct. Hence, option (2) is correct.

149. Option (3) is correct.

Explanation: Audiolingualism is a teaching methodology that emphasizes the learning of language through listening and speaking. It follows the methods of oral drilling and mastery of the formal properties of language. Hence, option (3) is correct.

150. Option (4) is correct.

Explanation: Declarative knowledge refers to knowing about something, such as facts, information, or the rules of a grammatical item. It is knowledge of the 'what' aspect. Hence, option (4) is correct.

भाषा-III: हिन्दी

121. विकल्प (1) सही है।

व्याख्या— 'मानवीय' शब्द में 'ईय' प्रत्यय है।

- प्रत्यय-वे शब्दांश जो किसी शब्द में

जुड़कर उसके अर्थ में परिवर्तन कर देते हैं।

122. विकल्प (4) सही है।

व्याख्या— 'एआई' का अर्थ है- आर्टिफिशियल इंटेलीजेंस।

123. विकल्प (1) सही है।

व्याख्या— एआई शारीरिक श्रम से जुड़े कार्यों पर सम्भवतः सबसे कम प्रभाव डालती है। इससे खेती-बाड़ी कार्य प्रभावित नहीं होगा जबकि आविष्कार, चिकित्सा, शिक्षण इत्यादि प्रभावित होंगे।

124. विकल्प (4) सही है।

व्याख्या— एआई वरदान ही रहे और भस्मासुर न बने, उसके लिए यह सोचने की जरूरत है कि मानवीय बुद्धिमत्ता के स्तर को इतना ऊँचा कैसे उठाया जाए कि एआई उस पर हावी न हो सके। मानवीय गुणों को संस्कार दें।

125. विकल्प (4) सही है।

व्याख्या— भविष्य में डॉक्टरों, सर्जनों की जरूरत भी कम होने वाली है। एआई के जरिए लक्षणों को समझा जाएगा तथा आपकी केस हिस्ट्री बनाई जाएगी।

126. विकल्प (3) सही है।

व्याख्या— एआई को जन्म देने वाला कारक है। आवश्यकता। आवश्यकता ही आविष्कार की जननी है।

127. विकल्प (2) सही है।

व्याख्या— समूह से भिन्न शब्द 'चाय-वाय' है जबकि अन्य शब्द विपरीतार्थक हैं।

शब्द समूह:-

- कंकड़-पत्थर
- पढ़ाई-लिखाई
- रात-दिन

128. विकल्प (1) सही है।

व्याख्या— एआई से शिक्षा जगत भी प्रभावित होगा और यह प्रभाव सकारात्मक होगा। अब अगर चैट जीपीटी बनाया है तो फिर पढ़ाई-लिखाई और इम्तहानों का वह तरीका कौन-सा हो, जो बिना एआई के युवाओं और बच्चों के बौद्धिक स्तर को परख सके। इन सवालों के जवाब देना मुश्किल है पर नजर जरूर रखनी चाहिए।

129. विकल्प (4) सही है।

व्याख्या— अच्छे स्वास्थ्य का सम्बन्ध बीमारियों के अभाव से है। योग में प्राण को बल देने के लिए अनेक अभ्यास हैं। इसके द्वारा शरीर में होने वाली बीमारियों की रोकथाम कर सकते हैं।

130. विकल्प (2) सही है।

व्याख्या— जीवन के लिए सर्वाधिक महत्वपूर्ण है प्राण और शरीर का सामंजस्य। प्राण केवल हमारे शरीर को ही नहीं संभालता बल्कि मन, बुद्धि आदि प्रत्येक आयाम को जीवन देता है।

131. विकल्प (4) सही है।

व्याख्या—प्राण वायु को सशक्त बनाने का अभ्यास योग में है। शरीर में होने वाली बीमारियों को रोक सकते हैं।

132. विकल्प (1) सही है।

व्याख्या—‘स्वास्थ्य’ विशेष का उदाहरण नहीं है। यह भाववाचक संज्ञा है।

विशेषण के उदाहरण— व्यवस्थित, संतुलित, स्वस्थ इत्यादि।

133. विकल्प (4) सही है।

व्याख्या—‘बुद्धि’ में ‘इक’ प्रत्यय लगने पर बौद्धिक शब्द बनेगा।

प्रत्यय— वे शब्दांश जो किसी शब्द के अन्त में लगकर उनके अर्थ में परिवर्तन कर देते हैं।

134. विकल्प (4) सही है।

व्याख्या—रोग का कारण प्राण वायु का अंग विशेष में असंतुलन है। योग में इस प्राण को बल देने के लिए अनेक अभ्यास हैं।

135. विकल्प (3) सही है।

व्याख्या—प्राण वायु शरीर के प्रत्येक अंग में संतुलित और व्यवस्थित होकर बहती है। देखा जाए तो बीमारी और कुछ भी नहीं, बल्कि प्राण का उस अंग विशेष में असंतुलित हो जाना ही है।

136. विकल्प (3) सही है।

व्याख्या—भाषा शिक्षा पर राष्ट्रीय शिक्षा नीति 2020 में विभाषा सूत्र के अन्तर्गत भाषा के रूप में शास्त्रीय भाषा का अध्ययन अनिवार्य नहीं है।

भाषा शिक्षा पर राष्ट्रीय शिक्षा नीति 2020 के संदर्भ में महत्वपूर्ण कथन

- त्रिभाषा सूत्र के अन्तर्गत भारतीय भाषाओं का अध्ययन
- त्रिभाषा सूत्र के अन्तर्गत मातृभाषा/घर की भाषा का अध्ययन।

137. विकल्प (1) सही है।

व्याख्या—इस गतिविधि सामूहिक श्रुतलेख कहते हैं।

महत्वपूर्ण बिन्दु—

- वे शिक्षार्थी की एकाग्रता के लिए आवश्यक है।
- शिक्षार्थी का पढ़ाई में ध्यान केन्द्रित करने के लिए आवश्यक है।

138. विकल्प (2) सही है।

व्याख्या—भाषा को अच्छी तरह से लिखना सीखना—

- मानस मंथन
- मुख्य बिन्दु नोट करना
- रूपरेखा तैयार करना
- प्रारूप लिखना
- संपादन
- अन्तिम स्वरूप देना

139. विकल्प (1) सही है।

व्याख्या—सहजात/प्रथम भाषा का ज्ञान द्वितीय भाषा के अधिगम को समर्थित करता है।

140. विकल्प (3) सही है।

व्याख्या—घर में जब विद्यार्थी अपने माता-पिता के साथ बात करता है तो प्रवाह के साथ चारों भाषाएँ बोलता है और विद्यालय में वह हिंदी, कन्नड़ तथा अंग्रेजी बोलता है क्योंकि उसके मित्र व अध्यापक को यही भाषाएँ आती हैं इस स्थिति को परभाषिक (ट्रांसलिंग्वल) योग्यता कहते हैं।

141. विकल्प (2) सही है।

व्याख्या—संज्ञानात्मक अकादमिक भाषा निपुणता— यह अकादमिक भाषा या विभिन्न प्रकार के विषयों के लिए आवश्यक भाषा में निपुणता से सम्बन्धित है।

मुख्य बिन्दु:-

- इसके अन्तर्गत तुलना, मूल्यांकन एवं वर्गीकरण को शामिल किया जाता है।
- इसमें विषयवस्तु सामग्री के बारे में सुनना, बोलना, पढ़ना, लिखना भी शामिल है।

142. विकल्प (4) सही है।

व्याख्या—समालोचनात्मक विश्लेषण के अन्तर्गत विद्यार्थियों की समझ को विकसित किया जाता है। उन्हें तार्किक बनाने का प्रयास किया जाता है।

143. विकल्प (4) सही है।

व्याख्या—वास्तविक वस्तुओं (रीयलिया) के अन्तर्गत आते हैं:-

- चम्मच
- प्लेट
- डिब्बे
- परात

144. विकल्प (2) सही है।

व्याख्या—सामाजिक विज्ञान की कक्षा में शिक्षार्थी कक्षा में दिए जा रहे वक्तव्य से मुख्य बिन्दु समझने की कोशिश कर रहे हैं और मुख्य बिन्दु लिख रहे हैं। इस कौशल को संज्ञानात्मक कौशल कहेंगे।

संज्ञानात्मक कौशल का उपयोग

- चिन्तन के लिए
- अध्ययन के लिए
- अधिगम के लिए

145. विकल्प (4) सही है।

व्याख्या—अधिगम प्रतिफल शिक्षार्थियों को समर्थ बनाते हैं तथा यह दक्षताओं को मापन के सन्दर्भ में प्राप्त करने के लिए आवश्यक होते हैं।

146. विकल्प (3) सही है।

व्याख्या—‘परभाषा व्यवहार’ (ट्रांसलैंग्विजिंग) - भाषाओं के शिक्षण अधिगम के दौरान एक भाषा में दूसरी भाषा में व्यवहार करने से सम्बन्धित है।

147. विकल्प (1) सही है।

व्याख्या—जब आप किसी के स्थान पर स्वयं को रखकर वर्तमान स्थिति का अवलोकन करते हैं तो इस लेखन कार्य को एक्स्ट्रापोलेटिव लेखन कहते हैं।

148. विकल्प (2) सही है।

व्याख्या—सभी बच्चे अपनी विद्यालय शिक्षा मातृभाषा या घर की भाषा में शुरू करते हैं और दसवीं पूरी करने तक कम से कम दो और भाषाएँ सीखते हैं। इस प्रकार यह त्रिभाषा सूत्र के अन्तर्गत जाता है।

149. विकल्प (4) सही है।

व्याख्या—सम्प्रेषणात्मक भाषा शिक्षण भाषा अधिगम के लिए डिल और ‘भाषा के औपचारिक गुणधर्म में निपुणता’ को आवश्यक रूप की तरह अनुशंसा करती है।

150. विकल्प (2) सही है।

व्याख्या—घोषणात्मक ज्ञान किसी व्याकरणिक तत्व पर कैसे कार्य किया जाए यह जानना है।

मुख्य बिन्दु:-

- यह व्याकरण की विषयवस्तु को सरल बनाता है।
- भाषा संरचना का विकास होता है।
- व्याकरण के प्रकारों के बारे में ज्ञान, वर्णन करना और उसे औपचारिक परिस्थितियों में प्रयोग करना सिखाया जाता है।