CTET Solved Paper



Total Marks: 150

Paper-2

17th January 2023

Child Development and Pedagogy

- **1.** Which of the following statements is correct about development ?
 - (1) Development is uniform
 - (2) Development is entirely unpredictable
 - (3) There are individual differences in development
 - (4) Development proceeds from specific to general
- **2. Assertion (A) :** Provision of mid-may meals in schools can ensure better nutritional health of the students.

Reason (R) : Environmental factors do not play any role in shaping an individual since growth is determined only by heredity.

Choose the correct option :

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (2) Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (3) (A) is true but (R) is false.
- (4) Both (A) and (R) are false.
- **3.** As an agency of secondary socialization the primary function of the school is to :
 - (1) Cut the child off from the home.
 - (2) Undo the learning children had at home.
 - (3) Contradict the learnings acquired by the child in the family.
 - (4) Be an extension of the family and build upon the things child is familiar with.
- **4.** In Jean piaget's theory is said to occur when a child perceives new objects or events in terms of existing schemas :
 - (1) Assimilation
 - (3) Metacognition (4) Scaffolding
- 5. Despite their abilities to solve different kinds of problems children still cannot think hypothetically.
 - (1) Sensori-motor (2) Concrete operational
 - (3) Pre-operational (4) Formal operational

(2) Organization

- **6.** According to Kohlberg the pre-conventional level of moral development is characterised by :
 - (1) Focus on how cultural factors and gender influences moral development
 - (2) Good or bad is determined by the consequences of obeying or disobeying rules
 - (3) The individual strives to maintain the expectations of others rather than focus on the consequences of one's actions.
 - (4) Self-chosen ethical principles that are universal

- **7.** A teacher believing in Vygoysky's sociao-cultural theory should :
 - (1) Discourage interaction and dialogue among students
 - (2) Provide appropriate scaffolding to students as and when required
 - (3) Offer rewards and punishment to students regulating their behaviour
 - (4) Enable students to from association between stimulus and response
- 8. In Lev Vygotsky's theory, knowledge is coconstructed by the child and the adult the zone of proximal development.
 - (1) Outside (2) Within
 - (3) Beneath (4) Ahead of
- **9.** Which of the following is NOT included in a progressive and child-centered education ?
 - (1) Use of digital technology and teaching-learning materials
 - (2) Emphasis learning from activities, experiences, and playful exploratory manner
 - (3) Emphasis only on course completion with structured curriculum
 - (4) Active participation of students with democratic and free expression
- **10.** Measurement of intelligence by calculating Intelligence Quotient (IQ) through use of standardized tests is problematic because -
 - (1) are not Culturally fair
 - (2) give only qualitative analysis
 - (3) measure intelligence comprehensively
 - (4) account for individual differences
- Assertion (A) : Teachers should not create print-rich environment in the elementary classrooms.
 Reason (R) : Development of language is inborn ability.

Choose the correct option.

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (2) Both (A) and (R) true but (R) is not the correct explanation of (A).
- (3) (A) is true but (R) is false.
- (4) Both (A) and (R) are false.
- **12. Assertion (A) :** Boys and Girls learn to behave in 'Gender appropriate' ways by observing and limitating same-sex adults.

Reason (R) : Gender is a purely biological construct. Choose the correct option.

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (2) Both (A) and (R) are true but (R) is the correct explanation of (A).
- (3) (A) is true but (R) is false.
- (4) Both (A) and (R) are false.

- **13.** While interacting with a diverse group of students, a teacher :
 - (1) Should discourage discussions that encourage the students to talk about their backgrounds and experiences.
 - (2) Continuously reflect on her own stereotypes and biases.
 - (3) Follow a uniform curriculum and standardised evaluation.
 - (4) Adopt the lecture method as the primary mode of teaching.
- **14.** Assessment should be :
 - (1) Holistic and continuous.
 - (2) Standardised and exam centric.
 - (3) Summative and norm-referenced.
 - (4) Teacher-centered and discontinuous
- **15.** Which of the following is **not** a characteristic of students who are critical thinkers ?
 - (1) Open-mindedness and inquisivness
 - (2) Following instructions blindly
 - (3) Asking clarifying questions
 - (4) Assessing the credibility of sources
- **16.** Which of the following of advocates a flexible learning environment considering the unique needs of each child in an inclusive classroom ?
 - (1) Highly structured curriculum
 - (2) Standardized assessment
 - (3) Universal designs for learning
 - (4) Uniform and summative assessment
- **17.** In a group of diverse learners teachers should practise multicultural education :
 - (1) Aimed at ensuring uniform and standardised curriculum.
 - (2) By using uniform and standardized assessment.
 - (3) By creating separate sections based on the cultural backgrounds of children.
 - (4) By creating a classroom ethos where every child feels a sense of belonging.
- **18.** Sunita exhibits repetitive motor actions and had difficulty making friends though she had ability for excellent attention, to detail. These are typical identifying characteristics of :
 - (1) Autism
 - (2) Dyslexia
 - (3) Dysgraphia
 - (4) Attention deficit hyperactivity disorder
- **19.** Which of the following is an example of assitive technology to aid hearing ?

(1)	Brai	ille sy	stem	(2)	W	alking stic	k
· - ·	~				-		

- (3) Sound amplifier (4) Eyeglasses
- **20.** Which of the following are important characteristics of creativity ?
 - (i) Divergent thinking
 (ii) Flexibility
 (ii) (ii) (iii)
 (ii) Originality of ideas
 (iv) Convergent thinking
 (2) (i) (ii)
 - (3) (ii) (iii) (4) (i) (ii) (iii) (iv)
- **21.** For effective learning, teachers should ensure that the learning activities :
 - (1) Build on the previous understanding of the students and further it.
 - (2) Are aimed to only reproduce knowledge from the textbook.
 - (3) Are decontextualized and depersonalized.
 - (4) Are extremely complex and abstract.

- 22. 'Alternative conceptions' among children :
 - (1) Reflect the egocentric and irrational thinking of children.
 - (2) Are found only in children with very high IQ levels.
 - (3) Are an obstracle to learning and should be punished.
 - (4) Are the 'native' theories that children construct about phenomenon around them.
- **23.** Teachers can encourage effective problem solving by:
 - (1) Discouraging multiple perspectives and guesses in her class
 - (2) Encouraging children to make intuitive guesses
 - (3) Writing step-by-step solution to the problem
 - (4) Focusing on the reproduction of textbook knowledge
- **24.** As the class teacher of an underachieving child, which of the following facilitative strategies do you think would be most useful ?
 - (1) Give the students a long lecture on his underachievement
 - (2) Try to identify the reasons for his underachievement and set short term, achievable goals
 - (3) Ask the school management to take necessary steps such as making a separate section for under achieving students
 - (4) Call the parents of the child and tell them that their child does not have any ability so they should put the child in a separate school
- **25.** Which of these is an important activity to enable conceptual understanding in children ?
 - (1) Dialogue (2) Lecture
 - (3) Direct Instruction (4) Rewards
- 26. According to National Education policy 2020, experiential learning will be adopted in all stages. What is NOT correct with respect to experiential learning ?
 - (i) It makes the teacher more active in the teachinglearning process than the students.
 - (ii) It helps in connecting past experiences to gaining new knowledge and transfer of positive learning.
 - (iii) It is completely based on the promotion of traditional bookish knowledge.
 - (iv)It emphasizes on developing real and scientific understanding in students through experiences and experiments.
 - (1) (ii), (iv) (2) (i), (iii)
 - (3) (i), (iv) (4) (ii), (iii)
- **27.** Which of the following emotions facilitates the process of meaningful learning ?
 - (1) Panic (2) Frustration
 - (3) Irritation (4) Excitement
- 28. Children learn best through the processes of :
 - (1) Passive imitation (2) Drill and recall
 - (3) Rote memorization (4) Guided discovery
- 29. Which of the following is a higher order ability that involves thinking about one's own thinking ?(1) Recall(2) Conditioning
 - (3) Metacognition (4) Repetition

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- **30.** Teachers can encourage children to become intrinsically motivated by :
 - (1) Use of methods of conditioning
 - (2) Giving appropriate rewards
 - (3) By use of punishment
 - (4) By considering student's interests

Mathematics and Science

- 31. When we add one to four digit greatest number, we get :(1) A four digit number with unit digit 9.
 - (2) The five digit greatest number.
 - (3) The five digit least number.
 - (4) A five digit number with unit digit 1.
- **32.** While teaching Class VI students, teacher explains that :
 - 6 + 4 = 4 + 6
 - $6-4\neq 4-6$
 - $6 \times 4 = 4 \times 6$
 - Which property He/She is trying to explain :
 - (1) Closure property
 - (2) Associative property
 - (3) Commutative property
 - (4) Multiplicative inverse property
- **33.** Which of the following is a prime number ?
 - (1) 1 (2) 2
 - (3) 9 (4) 4
- **34.** If we multiply a fraction by itself and then divide the product so obtained by its reciprocal, then the fraction obtained is $2\frac{10}{27}$. The original fraction is :

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(1) $2\frac{1}{3}$	(2) $1\frac{1}{3}$
(3) $3\frac{1}{3}$	(4) $\frac{8}{3}$

- 35. What number should be added to 0.01 to get 1.1?
 (1) 1.11
 (2) 1.09
 (3) 0.91
 (4) 0.19
- **36.** For an algebraic operation (addition, subtraction or multiplication), which of the following statement is NOT true ?
 - (1) Like terms are added
 - (2) Like terms are subtracted
 - (3) In addition and subtraction, like and unlike terms are left as they are
 - (4) Only like terms are multiplied
- 37. The ages (in years) of Hari and Harry are in the ratio 5 : 7. Four years from now, the ratio of their ages will be 3 : 4. Their present ages are :
 - (1) Hari 28 years, Harry 20 years.
 - (2) Hari 20 years, Harry 28 years.
 - (3) Hari 15 years, Harry 21 years.
 - (4) Hari 21 years, Harry 15 years.
- **38.** In a two digit number, the digit in tens place exceeds the digit in units place by 4. If the sum of the digits
 - is $\frac{1}{7}$ of the number, then the digit at the units place

in the number is :

(1) 5	(2)	4
(3) 3	(4)	1

- **39.** If *x* is the simple interest (in \mathbf{E}) on \mathbf{E} 30000 at 15% per annum for 3 years, then the value of 2x + 50 is : (1) 27500 (2) 27050 (3) 25750 (4) 25700 $\frac{(4x^2 - 12x + 9)(ax^2 + bx)}{(2x^2 - 3x)}$ is equal to : 40. (1) (ax + b)(2x + 3)(2) (ax + b)(2x - 3)(3) (ax - b)(2x + 3)(4) (ax - b)(2x - 3)**41.** If x, y and z respectively represents the number of faces, edges and vertices of a hexagonal pyramid, then the value of $\left(\frac{x+y+z}{2}\right)^2$ is: (1) 121 (2) 144 (4) 196 (3) 169 **42.** A triangle is to be constructed with sides (2p - 1) cm, (2p + 1) cm and 12cm. For constructing the triangle, *p* must always be : (1) Greater than 3 (2) Greater than 2.5 (3) Equal to 3 (4) Equal to 2.5 43. Number of degrees (°) in four and two-third of right angle is : (2) 330 (1) 310 (4) 400 (3) 420 44. In which of the quadrilaterals - Rectangles, Square, Rhombus and Parallelogram, the diagonals are perpendicular to each other ? (1) Rectangle and Square (2) Square and Rhombus (3) Parallelogram and Rhombus (4) Rhombus and Rectangle 45. Which of the following figures have no line of symmetry ? (1) Isosceles triangle (2) Kite (4) Circle (3) Parallelogram 46. If the volumes of two cubes are in the ratio 27 : 64, then the ratio of their total surface area is : (2) 3:4 (1) 27:64 (3) 9:16 (4) 3:8 47. The area of a rectangle of length 18 cm is equal to the area of a square of side 12 cm. Then, the perimeter of the rectangle (in cm) is : (1) 26 (2) 36 (3) 52 (4) 72 48. The perimeter of a trapezium is 104 cm and each of its non-parallel sides is equal to 20 cm. If its height is 16 cm, then its area (in cm^2) is : (1) 512 (2) 496 (3) 472 (4) 448 49. Which of the following is a characteristic of the median of a data ? (1) It gets affected by extreme scores of data. (2) It is same as finding mean. (3) It is always equal to the value of $\frac{(\text{mean } + \text{mode})}{2}$
 - (4) It does not get affected by extreme scores of the data.

- **50.** A box contains 10 slips with numbered 1 to 10 (one number on one slip) which have been mixed well. One slip is chosen from the box without looking into it. What is the probability of getting a number greater than 6 ?
 - (1) $\frac{1}{2}$ (2) $\frac{2}{5}$ (3) $\frac{3}{5}$ (4) $\frac{4}{5}$
- **51.** Which among the following is NOT a key process to be developed in mathematical reasoning ?
 - (1) Recognising patterns
 - (2) Memorising a formula
 - (3) Identifying relationships
 - (4) Formulating hypothesis
- **52.** Which of the following is the most appropriate method to teach the identity $(a + b)^2$ using chalk and blackboard ?
 - (1) Write $(a + b)^2 = a^2 + b^2 + 2ab$ on the blackboard and solve related problems as examples
 - (2) Demonstrate the multiplication, $(a + b)^2 = (a + b) \times (a + b)$
 - (3) Take a chart of identities in the classroom and help students memorise them
 - (4) Make a jingle and help the students memorise all such identities
- **53.** It has been observed that people involved in occupations require mathematical skills of computation and estimation like vendors, construction workers etc. are often not able to cope up with formal school mathematics. Which of the following offers the most appropriate explanation for this ?
 - (1) School mathematics requires a different level of intelligence
 - (2) Many people are inherently incapable of learning school mathematics
 - (3) School curriculum usually does not incorporate ways of teaching-learning specific to learner's cultural context
 - (4) People coming from these occupational backgrounds do not have time to practice problems given in the textbook at home
- **54.** A students in class VI gives the following statement in a mathematics class :

"A 3D shape can be transformed into a 2D shape". Which of the following concepts the child is correctly applying to the above situation ?

- (1) Viewing objects from different sides
- (2) Scaling
- (3) Rotation
- (4) Symmetry
- 55. It was observed that a class VII student was able to find the answer of $\frac{1}{4} \div \frac{2}{3}$ but was not able to give

a real-life situation of application of the same. The reason could be :

- (1) The teacher did not develop the idea of division of fractions using concrete materials before introducing the standard algorithm
- (2) There are hardly any real-life applications of fractions

- (3) The students did not pay attention when the teacher was teaching the topic
- (4) Division of fractions is a difficult concept for class VII student
- **56.** Which of the following is the most appropriate way to teach the middle school students that mathematical probability of any outcome in a random event lies between 0 to 1 ?
 - (1) By writing the formula of probability as possible outcomes divided by total number of outcomes
 - (2) By using videos based on solving problems on probability from internet
 - (3) By telling the students to do some experiments and verify
 - (4) By conducting a practical experiment of any random event like throwing a dice, flipping a coin etc. and asking students to note the outcomes
- **57.** According to many research studies, which of the following is the most appropriate reason for gender based differences in mathematical achievement in school mathematics education.
 - (1) Inherent differences in cognitive capacities of males and females
 - (2) Persistent social stereotype carried out in classroom that mathematics is a male domain
 - (3) A natural difference in males and females with respect to interests in learning mathematics
 - (4) Differences in physiological and biological features of males and females
- **58.** At primary level, children's thinking in mathematics progresses from :
 - (A) abstract to concrete
 - (B) complex to simple
 - (C) simple to complex
 - (D) concrete to abstract
 - Choose the correct option :
 - (1) (A) and (B) (2) (B) and (C)
 - (3) (A) and (D) (4) (C) and (D)
- **59.** Which among the following is an open ended question ?
 - (1) Identify three objects which are in the shape of a cuboid
 - (2) If sum of two numbers is 13 and their difference is 3, what are the numbers ?
 - (3) Write as many as possible even numbers
 - (4) Write even numbers, between 10 and 20 which are multiples of 2 and 3
- **60.** Ms. Fathima, a class VIII mathematics teacher has given a group project on problem solving in geometry to her students. She assessed her students over a period of time on various parameters like their analytical skills, problem solving skills, presentation skills; participation in group discussions etc. Which assessment tool will NOT be appropriate for this purpose ?
 - (1) A Rating Scale
 - (2) An Interview Schedule
 - (3) A Checklist
 - (4) Rubrics

61. Two wires forming the open ends of a circuit consisting of bulb and an electric cell are dipped in the following liquids one by one and it is noted whether the bulb in the circuit glows or not. Following are the observation :

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Liquid Bulb glows or not

- A
- В
- С
- D
- A, B, C and D could be :
- (1) copper sulphate, sugar solution, distilled water, salt water
- (2) sugar solution, distilled water, salt water, copper sulphate
- (3) distilled water, salt water, copper sulphate, sugar solution
- (4) salt water, copper sulphate, sugar solution, distilled water
- 62. The conversion of milk into curd is :
 - (1) Physical and Reversible change
 - (2) Physical and Irreversible change
 - (3) Chemical and Reversible change
 - (4) Chemical and Irreversible change
- 63. <u>W</u> is a chemical substance used in antacids as well as cleaning and baking products. It's chemical nature is <u>X</u>. When turmeric solution is added to X, it turns <u>Y</u>. The common name of W is <u>Z</u>. W, X, Y, Z respectively are :
 - (1) sodium carbonate, basic, bluish, washing soda
 - (2) sodium hydroxide, acidic, reddish, baking soda
 - (3) sodium bicarbonate, basic, reddish, baking soda
 - (4) sodium bicarbonate, acidic, reddish, washing soda
- **64.** Read the following statements regarding viruses and choose the correct statements :
 - (A) They lack cellular structure
 - (B) They contain DNA or RNA
 - (C) They are smallest living micro-organisms
 - (D) They can reproduce on their own 🧼
 - (1) (A) and (C) (2) (A) and (B)
 - (3) (B) and (C) (4) (C) and (D)
- 65. Seismograph is an instrument used to measure the intensity of earthquakes. Seismograph mainly consists of a :

(1) vibrating rod	(2) electrical conductor
(3) electromagnet 🚽	(4) barometer

66. Which of the following represent correct set of organisms with their respective respiratory organ ?

Organism				Respiratory organ
(A) Ea	arthw	vorm		(I) Gill
(B) C	ockro	ach		(II) Skin
(C) D	olphi	n		(III) Tracheal system
(D) Sr	nail			(IV) Lungs
Codes	:			
А	В	С	D	
(1) II	III	IV	Ι	
(2) II	III	Ι	IV	
(3) III	II	Ι	IV	
(4) III	IV	Ι	II	

- **67.** The sound travels from water into an iron rod and then into air and back into water. The speed of sound will successively :
 - (1) increase, increase, decrease
 - (2) decrease, increase, increase
 - (3) increase, decrease, increase
 - (4) decrease, increase, decrease
- **68.** Read the following statements and choose correct response :

Assertion (A) : There is no frictional force acting on a stationary car.

Reason (**R**) : Friction acts only on moving objects.

- (1) Both (A) and (R) are correct and (R) is correct explanation of (A).
- (2) Both (A) and (R) are correct but (R) is not correct explanation of (A).
- (3) (A) is correct but (R) is false
- (4) Both (A) and (R) are false
- **69.** Reena takes a plastic bottle and makes three identical holes at different levels of the bottle. She fills the bottle and observes water flow. Which of the following statement about her observation and inference is correct ?
 - (1) The water comes out of all the three holes with same force and falls at the same distance
 - (2) The water from the topmost hole comes out with the least force and falls at the minimum distance
 - (3) The water from the topmost hole comes out with maximum force and falls at the maximum distance
 - (4) The water from the bottom hole comes out with least force and falls at minimum distance
- **70.** Which of the following statements is true ?
 - (1) Soils with slow percolation rate retain more moisture
 - (2) Roots of plants, humus and organic matter increases percolation rate
 - (3) Fast percolation rate helps in better absorption of water by roots
 - (4) Soils which have large particle size have slow percolation rate
- **71.** Which of the following materials is best suited to make a fuse wire ?

Material	Melting point	Resistivity
А	High	High
В	Low	High
С	High	Low
D	Low	Low
(1) A	(2) B	
(3) C	(4) D	

- **72.** Read the following sentences about transpiration in plants :
 - (A) Transpiration creates suction pull which causes water to reach great heights in tall trees.
 - **(B)** Transpiration helps in maintaining optimum body temperature in plants.
 - **(C)** Transpiration helps in absorption of water by the roots.

Which of the following statements is/are correct?

(1) (A) and (B) (2) (A) and (C)

(3) (B) and (C) (4) (A), (B) and (C)

- **73.** If a clock shows quarter past three, how would it appear in mirror ?
 - (1) Quarter past three
 - (2) Quarter past nine
 - (3) Three quarters past nine
 - (4) Three quarters past eight
- **74.** Hens are and type of fertilisation takes place in them.
 - (1) oviparous, internal
 (2) oviparous, external
 (3) viviparous, internal
 (4) viviparous, external
- **75.** The time period of a simple pendulum does not depend on :
 - (1) length of pendulum, mass of bob, material of the bob
 - (2) length of pendulum, distance between two extreme positions
 - (3) mass of the bob, material of the bob
 - (4) length of pendulum, shape of bob
- **76.** Which of the following plays most crucial role in disaster management of cyclones ?
 - (1) Evacuation of people
 - (2) Monitoring distribution of resources
 - (3) Helping people to build houses
 - (4) Early and effective forecast systems
- 77. The distance between Delhi and Agra is 180 km. Seeta travels in car from Delhi to Agra and it takes her 5 hours to reach Agra. While returning, if the speed of the car is 60 km/hr, what is the time taken to complete the entire journey and what is the average speed of the car for this journey ?
 - (1) 6 hours, 40 km/hr (2) 8 hours, 45 km/hr
 - (3) 8 hours, 47 km/hr (4) 10 hours, 47 km/hr
- **78.** The shape of Red blood cells (RBCs) help in exchange of gases by providing large surface area. The shape of RBCs is :
 - (1) long and thin (2) Flat
 - (3) Disc shaped (4) Branched
- **79.** Which of these statement is not true if X and Y are elements and combine to form a compound Z ?
 - (1) Atoms of X and Y are same
 - (2) Atoms of X and Y are present in Z
 - (3) Atoms of X, Y and Z are different
 - (4) The distribution of atoms in Z is different from both X and Y
- 80. Seema takes four test tubes and labels them as (A), (B), (C), (D). She puts an iron nail in each of the test tube and puts the following :
 - (A) -oil (B) -soda lime
 - (C) -hot water (D) -tap water

She closes all the test tubes and writes observation after few days.

Which of the following observations is correct?

- (1) In test tube (A) and (C), the iron nail is rusted whereas in (B) and (D), it is not rusted
- (2) In test tubes (A) and (B), the iron nail is rusted whereas in (C) and (D), it is not rusted
- (3) In test tube (D), the iron nail is rusted whereas in (A), (B) and (C) it is not rusted
- (4) In test tube, (C), the iron nail is rusted whereas in (A), (B) and (D) it is not rusted

- 81. Which of the following statements is/are true regarding Nature of Science ?(A) Science promotes Scepticism
 - (B) Science is always objective
 - (C) Science is interdisciplinary
 - (D) Science is same across all cultures
 - (1) (A), (B) (2) (B), (C)
 - (3) (C), (D) (4) (A), (C)
- **82.** 'Naive conceptions' which children construct about various science concepts and phenomenon ?
 - (1) Should be ignored by teacher as they are irrelevant
 - (2) should be replaced by telling the correct ones
 - (3) should be challenged by counter evidence
 - (4) should be used for grading of correct understanding of concepts
- 83. Presenting non examples of concept in Science :(1) promotes conceptual understanding
 - (2) leads to conceptual gaps
 - (3) leads to confusion
 - (4) enhances procedural knowledge
- **84.** Which of the following statements portrays a constructivist science classroom ?
 - (A) The role of dialogue is given attention
 - (B) Students' multiple perspectives are acknowledged
 - (C) Connection between Science and other subject areas is highlighted
 - (D) Objectivity in responses is given importance
 - (E) Assessment focuses on correct and scientific responses
 - **(1)** (C), (D), (E) **(2)** (A), (B), (C)
 - (3) (A), (B), (E) (4) (B), (D), (E)
- 85. An inclusive science classroom is characterized by :(1) Standardized assessment
 - (2) Individualized instructional plans
 - (3) Uniform curriculum and instruction
 - (4) Instruction by special educators
- 86. A student suspends a barmagnet by a thread and writes the following statements in her copy :S1 The bar magnet comes to rest in such a position

that one end points in the north and the other in the south direction

S2 - A freely suspended magnet aligns in North - South direction

Which of the following statements is/are correct ?

- (1) S1 is observation and S2 is inference
- (2) S1 is inference and S2 is observation
- (3) Both S1 and S2 are observation
- (4) Both S1 and S2 are inferences
- 87. Which of the following is a divergent question ?
 - (1) Why is Venus called an evening star?
 - (2) Why does lunar eclipse take place on a full moon day ?
 - (3) What would happen if the periods of rotation and revolution of moon were not the same ?
 - (4) Why is Mercury the hottest planet ?
- **88.** A teacher gives the following task to the students of class VIII.
 - "Interview 10 children from your neighbourhood to find out their habits and diet. On the basis of

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89.	 information collected, identify the healthy diet patterns in the children" "Which process skills are being promoted by this activity" ? (1) observing, defining operationally (2) communicating, defining operationally (3) observing, questioning (4) observing, communicating To encourage girls to pursue STEM related careers, which of the following strategies can a science teacher use ? (A) Use gender sensitive language 	94. 95. 96.	गद्यांश के अनुसार समुदाय के पहुँचकर उन्हें शिक्षित करने का (1) सोच-समझकर करना चाहिए (2) करने का शुल्क लेना चाहिए (3) नहीं करना चाहिए (4) करना चाहिए बच्चे शिक्षा की बजाय अपने पि पसंद करेंगे? (1) अपने आनंद के लिए (3) बुनियादी मदद के लिए संन्यासियों के किन गणों की चन्न	व्यक्तियों को स्वयं लोगों के पास कार्य । ए र (1) जीविकोपार्जन के लिए (2) जीविकोपार्जन के लिए (4) पढ़ाई से बचने के लिए र्वा की गई है?
	 (B) Invite women scientists to class (C) Engage students in examining stereotypes (D) Make gender based groups in class (E) Have separate instruction for girls (1) (A), (B), (D) (2) (A), (B), (C) (3) (C), (D), (E) (4) (A), (B), (E) 	97.	 (1) निष्ठावान एवं निस्वार्थ भाव (2) निष्ठावान एवं भौतिक विषय (3) भौतिक विषय एवं धर्मोपदेश (4) निष्ठावान एवं निरुद्देश्य याय 'संन्यासी' का विग्रह है– 	वाले य जानने वाले 1 देने वाले 1वरी प्रवृत्ति वाले
90.	Which of the following strategies are desirable for assessing learners meaningfully in Science ? (1) Same tasks should be given to all learners for	98.	 (1) सन् + न्यासी (3) सम् + न्यासी 'धर्मोपदेश' का सन्धि-विच्छेद है 	(2) सं + न्यासी (4) सन्य + आसी —
	parity(2) Learners' wrong answers should be ignored(3) Learners' reasoning should be given importance(4) Importance should be given to precise vocabulary	99.	 (1) धर्मो + पदेश (3) धर्मोप + देश 'प्रति + एक' की सन्धि होगी— 	 (2) धर्मो + उपदेश (4) धर्म + उपदेश
	and definitions Options : (1) (A) and (B) (2) (B) and (C) (3) (C) and (D) (4) (B) and (D)	निर्देः	(1) प्रतिएक (3) प्रतिक रा (100-109): नीचे दिए गए पह	(2) प्रत्येक (4) प्रतीक ग्रांश को ध्यानपूर्वक पढ़िए तथा पूछे
	Language: Hindi	गए	<mark>प्रश्न के लिए सबसे उपयुक्त विक</mark> तन से, मन से, वचन से, करो स	<i>ल्प का चयन कोजिए।</i> गदा सत्कर्म।
ਜਿਸੇਂ	מ (10 100). בובי לבוו זוו זובויט היו ציוובוולה ווכוו במו ווכי זוו		सब धर्मों का सार है, यही है मा	नव−धर्म ॥
प्रश्न	के लिए सबसे उपयक्त विकल्प का चयन कीजिए।		कपट, क्रोध, छल, लोभ से रहित	ा प्रेम-व्यवहार।
	एक बात जो भारत वर्ष में सभी बुराइयों की जड़ में है, वह है गरीबों		सबसे मिल-जुलकर रहो, सकल	विश्व-परिवार॥
की 🤅	अवस्था। मान लो तुमने प्रत्येक गाँव में एक नि:शुल्क पाठशाला खोल		कम वहां जिनसे मिल, सदा जग	तममान।
दी प	र तो भी उससे कोई लाभ न होगा, क्योंकि गरीब लड़के पाठशाला में	100	ाजनका सब निदा कर, उन्ह त्या 	ग्य हा जान॥
आने	की अपेक्षा अपने पिता की सहायता करने खेतों में जाना या जीविका	100.	. मानव का धम ह— (1) मन धर्मों का पालन करना	(१) शच्छे कार्य कान
को वि	लए और कोई धंधा करना अधिक पसद करेंगे। यदि गरीब बालक		(1) सब यना की पालन करना(3) केवल सच बोलना	(2) जेच्छ फोप फरना(4) केवल सेवा करना
ाशक्ष टमप्रे	ा लन नहां आ सकता ता शिक्षा का हा उसके पास पहुंचना चाहिए। र टेफ में महम्त्रों निष्ठालान प्रवार्थ-लाम मंत्रामी हैं जो एक गए मे	101	पेम भरे व्यवहार में क्या होना च	(_) · · · · · · · · · · · · · · · · · · ·
दसरे	ग्राम में धर्मोपदेश करते हैं। यदि उनमें से कछ को भौतिक विषयों के		(1) उपहार भेंट करना	(2) प्रेम का लाभ
भी f	शक्षक के रूप में संगठित किया जा सके, तो वे एक स्थान से दूसरे		(3) क्रोध से मुक्ति	(4) निष्कपटता
स्थान	ा को, एक दरवाजे से दूसरे दरवाजे को न केवल धर्मोपदेश करते हुए	102.	. कविता में किन्हें त्यागने की बात	की है?
वरन् आव	शिक्षा-कार्य भी करते हुए जाएँगे। जनसमूह में शिक्षा का प्रसार करना श्यक है।		 जो सबकी निंदा करते हैं। जो सबको मान देते हैं। 	(2) जिनकी सब बुराई करते हैं। (4) जिनकी सब प्रशंसा करते हैं।
91.	गद्यांश में भारत की बुराई का कारण बताया है। (1) भ्रष्टाचार की स्थिति (2) गरीबों का होना (3) गरीबों की हालन (4) शिक्षित लोग	103.	.'सकल विश्व-परिवार' में (1) पूरा विश्व समान है (2) प्रग विश्व प्रकल परिवार है	का भाव निहित है।
92	अगर बच्चे शिक्षा तक नहीं पहुँच सकते तो		(3) सभी परिवार की तरह मिल	-जलकर रहें
92.	(1) तम्हें घर पर पढाना चाहिए		(4) सभी परिवार की माँगों को	पुरा करें
	(2) उन्हें छोड़ देना चाहिए	104.	. किन कार्यों को करने से मान–स	म्मान मिलता है?
	(3) बच्चों को विशेष केंद्र भेजना चाहिए		(1) बड़े कार्य करने से	(2) सत्कर्म करने से
	(4) स्वयं शिक्षा को बच्चों तक पहुँचना चाहिए		(3) आविष्कार करने से	(4) रोगियों की सेवा से
93.	संन्यासियों को कौन−सा ज्ञान देने की बात की गई है?	105.	.'जगत' शब्द है—	
	 आधुनिक विज्ञान का ज्ञान भौतिक विषयों का ज्ञान भौतिक शास्त्रों का ज्ञान अलौकिक विषयों का ज्ञान 		(1) शब्द – युग्म (3) समानार्थी शब्द	(2) विशेषण शब्द (4) अनेकार्थी शब्द
	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·

106. बच्चे सामाजिक अन्त:क्रिया के माध्यम से भाषा अर्जित करते हैं। इस

ावचार का प्रातपाद	न ।कसक	द्वारा ।कथ	ા ગયા ફ ?
(1) पियाजे		(2) द	त्राइगोत्स्की

(3) चॉम्स्की (4) स्किनर

107. एक सात माह की बालिका व्यंजन और स्वरों का प्रयोग करते हुए आवाजें निकालती है। उसके सम्प्रेषण को क्या कहा जाएगा?

- (1) भाषिक वाक्
 (2) कूजन (कूयिंग)

 (3) स्वनिम
 (4) बबलाना
- 108. निम्नलिखित में से किसे सुनियोजित बातचीत कहा जाएगा?

(1) संरचित	(2) अल्प
(3) दीर्घ	(4) यादृच्छिक

- 109. विद्यार्थी पाठयसामग्री के भिन्न-भिन्न भागों को सुनते या पढ़ते हैं, उसके पश्चात् कार्य पूरा करने के लिए दूसरों के साथ सूचना का आदान-प्रदान करते हैं, इसे क्या कहते हैं?
 - (1) प्रवाह में बोला गया श्रुतलेख (2) संयुक्त श्रुतलेख

(3) जिगसॉ श्रुतलेख (4) आंशिक श्रुतलेख

- 110. एक भाषा अध्यापक के संज्ञान में यह बात आई कि कक्षा सात के विद्यार्थी को कहानी को पुन: कहने में कठिनाई आ रही है। उसके कथन में प्रवाह नहीं है और कक्षा में जिन शब्दों पर चर्चा की गई थी, वह उन शब्दों को भी समझ नहीं पा रहा है। भाषा संबंधी इस विकार को क्या कहते हैं?
 - (1) डिस्फेजिया (2) डिस्ग्राफिया
 - (3) डिस्प्रेक्सिया (4) डिस्कैलकुलिया
- 111. एक अध्यापिका प्रत्येक सत्र के अंत में अपने विद्यार्थियों का भाषा कौशलों का परीक्षण करती हैं। इससे उसे किस तरह की सहायता मिलेगी?
 - (1) विद्यार्थियों की भाषिक निपुणता का आकलन करने में।
 - (2) भाषा सीखने के प्रति उनकी अभिरुचि का मापन करने में।
 - (3) उन्हें अंक देने में।
 - (4) पाठयचया के उद्देश्य निर्धारित करने में।
- 112. भाषा की कक्षा में आकलन किया जाना चाहिए।
 - (1) यह जानने के लिए विद्यार्थियों ने पाठ से संबंधित प्रश्नों के उत्तर याद किए हैं या नहीं।
 - (2) शिक्षण-अधिगम-प्रक्रिया के दौरान किया जाना चाहिए।
 - (3) यह जानने के लिए कि अध्यापक पढ़ाने में कितना निपुण है।
 - (4) पाठ पूरा होने के पश्चात् किया जाना चाहिए।

113. कोड मिश्रण और कोड परिवर्तन के बारे में कौन-सा कथन सही है?

- (1) कोड मिश्रण वह है जब कोई एक ही वार्तालाप में दो या अधिक भाषाओं का विकल्प के रूप में इस्तेमाल करती है जबकि कोड परिवर्तन वह है जब कोई एक भाषा से कोई एक शब्द या वाक्यांश बोलती है और दूसरा शब्द या वाक्यांश दूसरी भाषा से बोलती है।
- (2) कोड मिश्रण और कोड परिवर्तन एक-दूसरे के पर्यायवाची हैं।
- (3) कोड मिश्रण वह है जब कोई एक ही वार्तालाप में एक भाषा से कोई एक शब्द या वाक्यांश तथा दूसरा शब्द या वाक्यांश दूसरी भाषा से बोलती है जबकि कोड परिवर्तन वह है जब कोई दो या अधिक भाषाओं का विकल्प के रूप में इस्तेमला करती है।
- (4) कोड मिश्रण और कोड परिवर्तन सिर्फ एक भाषा बोलने वालों द्वारा प्रयुक्त किया जाता है।
- 114. निम्नलिखित में से कौन-सा कथन पठन और लेखन कौशल के मध्य संबंध को दर्शाता है?
 - (1) एक बच्चों जो लिख नहीं सकती, वह पढ़ भी नहीं सकती।
 - (2) पठन और लेखन कौशल एकीकृत/समावेशित हैं।

- (3) पठन और लेखन पृथक-पृथक सिखाना चाहिए।
- (4) यदि कोई बालक इनमें से किसी एक कौशल में अच्छा है तो निश्चित रूप से वह दूसरे में भी अच्छा होगा।
- 115. एक अध्यापक विद्यार्थियों को रेखांकित शब्दों के स्थान पर सही विकल्प देने के लिए कहती है। वह किस कौशल का आकलन नहीं कर रही है?
 - (1) श्रवण (ध्यान से) (2) लेखन
 - (3) पठन (4) सुनना
- 116. प्रक्रिया आधारित लेखन उपागम के चरण कौन-से हैं?
 - (1) लेखनपूर्व-प्रारूपण-संशोधन-संपादन-प्रकाशन
 - (2) लेखनपूर्व-संशोधन-संपादन-लेखन-प्रकाशन
 - (3) लेखन-संपादन-संशोधन-लेखन-प्रकाशन
 - (4) लेखन-संशोधन-लेखनपूर्व-संपादन-प्रकाशन
- 117. विशिष्ट तथ्यों को जानने के लिए किया गया पठन क्या कहलाता है?
 - (1) बारीकी से पठन (2) सरसरी तौर पर पठन
 - (3) डिकोडिंग (4) विस्तृत पठन
- 118. कक्षा में सामाजिक भाषा को समुन्नत करने के लिए अध्यापक को क्या करना चाहिए?
 - (1) विद्यार्थियों को बाल दिवस की रिपोर्ट लिखने के लिए कहें।
 - (2) विद्यार्थियों को एक-दूसरे के साथ अन्त:क्रिया करने के अवसर दें।
 - (3) विद्यार्थियों को अपने जन्मदिन पर आमंत्रित करने के लिए एक निमन्त्रण पत्र बनाने के लिए कहें।
 - (4) विद्यार्थियों को पाठय सामग्री का सारांशीकरण करने के लिए कहें।
- 119. अध्यापिका ने शिक्षार्थियों कों कक्षापुस्तकालय से कहानी की पुस्तक चुनने और व्यक्तिगत रूप से पढ़ने के लिए कहा। वह किस तरह के पठन को समुन्नत करना चाहती हैं?
 - (1) तीव्र पठन (2) विस्तृत पठन
 - (3) समालोचनात्मक पठन (4) सहभागी पठन
- 120. कक्षा छह की अध्यापिका अपनी कक्षा में बच्चों की वर्तनी और विराम-चिहन विधान में सुधार लाने के लिए विभिन्न गतिविधियाँ करवाती हैं। इससे विद्यार्थियों को किस तरह की मदद मिलेगी?
 - (1) प्रवाह का संवर्द्धन होगा।
 - (2) श्रवण कौशलों का संवर्द्धन होगा।
 - (3) सटीकता में सुधार होगा।
 - (4) शब्द-संपदा में सुधार होगा।

Language: English

Directions (121-129): Read the passage given below and answer the question/complete the statements that follow by choosing the correct out of the given ones.

On the night of the day on which this cruel deed was done, I was aroused from sleep by the cry of fire. The curtains of my bed were in flames. The whole house was blazing, It was with great difficulty that my wife, a servant, and myself, made our escape from the conflagration. The destruction was complete. My entire worldly wealth was swallowed up, and I resigned myself thenceforward to despair.

I am above the weakness of seeking to establish a sequence of cause and effect between the disaster and the atrocity. But I am detailing a chain of facts- and wish not to leave even a possible link imperfect. On the day succeeding the fire, I visited the ruins.

The walls, with one exception, had fallen in, This exception was found in a compartment wall, not very thick, which stood about the middle of the house and against which had rested the head of my bed. The plastering had here, in great measure, resisted the action of the fire-a fact which I attributed to its having been recently done.

About this wall a dense crowd had collected, and many persons seemed to be examining a particular portion of it with very minute and eager attention. The words, 'strange' ! 'singular !' and other similar expressions, excited my curiosity. I approached and saw, as if etched in bas relief upon the white surface, the figure of a gigantic cat. The impression was given with an accuracy truly marvellous. There was a rope about the animals' neck.

- **121.** The narrator was sorry because :
 - (1) his house had caught fire.
 - (2) he had to resign.
 - (3) he had to shift to a new house.
- (4) he had to buy new curtains.
- **122.** Study the following statements :
 - (a) The narrator was keen to know the cause of the fire.
 - (b) The fire reduced him to poverty.
 - (1) (a) is true and (b) is false.
 - (2) (b) is true and (a) is false.
 - (3) Both (a) and (b) are true.
 - (4) Both (a) and (b) are false.
- **123.** Which of the following statements is TRUE ?
 - (1) Fear of being burnt made the narrator wake up.
 - (2) His servant helped his wife to escape.
 - (3) Only a part of his wealth was saved.
 - (4) A thin wall divided the house into two parts.
- **124.** Which of the following statements is NOT TRUE ?
 - (1) The narrator wants to describe all the facts in details.
 - (2) Only one wall remained safe.
 - (3) The narrator used to sleep with his head towards the wall.
 - (4) This wall saved the narrator's life.
- **125.** Study the following statements :
 - (a) A number of people came to console the narrator.
 - (b) They wanted to know the cause of the fire.
 - (1) (a) is right and (b) is wrong.
 - (2) (b) is right and (a) is wrong.
 - (3) Both (a) and (b) are right.
- (4) Both (a) and (b) are wrong.
- 126. Study the following statements :
 - (a) The people were shocked at the damage caused by the fire.
 - (2) The narrator felt curious at the excitement of the people.
 - (c) From the wall a cat was glaring at the people.
 - (1) (a) is right and (b) is wrong.
 - (2) (b) is right and (c) is wrong.
 - (3) (c) is right and (a) is wrong.
 - (4) Both (a) and (b) are right.
- 127. '..... With one exception'
 - The word exception means the same as :
 - (1) oddity (2) preference
 - (3) acceptance

- 151
- **128.** 'On the day <u>succeeding</u> the fire' The word opposite in meaning to the underlined
- - (1) Verb (2) Noun
 - (3) Adjective (4) Interjection

Directions (130-135): Read the extract given below and answer the question/complete the statements that follow by choosing the most appropriate options out of the given ones.

Is this a holy thing to see In a rich and fruithful land, Babes reduced to misery, Fed with cold and usurous hand?

Is that trembling cry a song ? Can it be a song of joy ? And so many children poor ? It is a land of poverty !

And their sun does never shine, And their fields are bleak and bare, And their ways are fill'd with thorns ; It is eternal winter there. For where-e'er the sun does shine, And where-e'er the rain does fall, Babe can never hunger there, Nor poverty the mind appall.

- **130.** The poem :
 - (1) is a song of joy.
 - (2) is a voice of protest.
 - (3) describe the glory of God.
 - (4) makes an appeal to God.
- 131. The irony prevalent throughout the poem is that :
 - (1) Children in a rich country are hungry.
 - (2) There is no love for children here.
 - (3) Children are singing in a trembling voice.
 - (4) In a poor country so many children are poor.
- 132. 'their ways are filled with thorns.'
 - The figure of speech used here is a :
 - (1) Simile (2) Metaphor
 - (3) Personification (4) Metonymy
- 133. 'It is eternal winter here' actually means :
 - (1) It is a very cold country.
 - (2) Nothing grows in the fields.
 - (3) Children enjoy the snowfall all the year round.
 - (4) People are uncaring and callous.
- 134. 'Usurous hand' means :
 - (1) miserly nature (2) a sympathetic heart
 - (3) a thrifty person (4) a useful person
- **135.** The child in the poem is :
 - (1) singing a happy song.
 - (2) playing in a rich and fruitful garden.
 - (3) leading a miserable life.
 - (4) suffering from cold.

(3) Chomsky

- **136.** Children acquire language through social interaction. This idea is supported by :
 - (1) Piaget (2) Vygotsky
 - (4) Skinner

(4) absence

rator's life. (4)

- 137. A 7 months old child makes vocalisations using consonants and vowels. He is communicating using:
 - (1) linguistic speech (2) cooing
 - (4) babbling (3) phonemes
- 138. talk is considered as a well organized talk.
 - (1) Structured (2) Short (4) Random
 - (3) Long
- 139. Students hear or read different parts of the text, then exchange information with others to complete the task. (1) Running dictation (2) Composition dictation (3) Jigsaw dictation (4) Partial dictation
- 140. A language teacher notices that her class 7 student has a difficulty in retelling a story, his speech is not fluent and he unable to understand the meaning of words discussed in class. This language disorder is referred to as :
 - (1) Dysphasia (2) Dysgraphia
 - (3) Dyspraxia (4) Dyscalculia
- 141. A teacher tests the students in language skills at the end of each semester. This will help her to :
 - (1) Assess students' language proficiency
 - (2) Measure their aptitude for learning the language
 - (3) Assign scores to them
 - (4) Define curricular objective
- 142. Assessment in the language class must be conducted: (1) to know whether they have learnt the answers of the questions related to the text.
 - (2) during the teaching learning process
 - (3) to know how efficient is the teacher to teach
 - (4) only after the text is complete
- 143. Which of the following statement is true for code mixing and code switching?
 - (1) Code mixing is when someone alternates two or more languages in same conversation while Code switching is when someone used one word or phrase from one language to another language.
 - (2) Code mixing and code switching are synonymous to each other.
 - (3) Code mixing is when someone uses one word or phrase from one language to another language while code switching is when someone alternates two or more languages in same conversation.
 - (4) Code mixing and code switching is done only by monolinguals.
- 144. Which of the following statement reflect the relation between reading and writing skill?
 - (1) A child who can't write also can't read.
 - (2) Reading and writing skill are integrated.
 - (3) Reading and writing should be taught separately. (4) If a child does well in one of these skills he will
 - definitely do well in other.
- 145. A teacher asks the students to replace the underlined word with the correct option. Which skill is NOT being assessed by her?

(1) Listening	(2) Writing
(3) Reading	(4) Hearing

- 146. Steps process writing approach are :
 - (1) Prewrite-Draft-Revise-Edit-Publish (2) Prewrite-Revise-Edit-Write-Publish
 - (3) Prewrite-Edit-Revise-Write-Publish
 - (4) Write-Revise-Prewrite-Edit-Publish
- 147. Reading to find specific facts is :
 - (1) Scanning (2) Skimming
 - (3) Decoding (4) Extensive reading
- **148.** To promote the social language in class a teacher :

- (1) asked the learner to write a report on children's dav.
- (2) gave the learners the opportunity to interact with peers.
- (3) asked the learners to write an invitation letter for her birthday.
- (4) asked the learner to summarize the given text.
- 149. Teacher asked the learners to choose the story books from the classroom library and read individually. She wants to promote :
 - (1) Intensive reading (2) Extensive reading
 - (3) Critical reading (4) Shared reading
- 150. A class-6 teacher conducts various activities in her class to improve spellings and punctuations. This will help her students to :
 - (1) enhance their fluency
 - (2) enhance their listening skills
 - (3) improve their accuracy
 - (4) improve their vocabulary
 - **ANSWER KEY**

Child Development and Pedagogy

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

Mathematics & Science

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

Language: Hindi

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

Language: English

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



CTET Solved Paper (Answers with Explanation)

Paper-2 17th January 2023

Child Development and Pedagogy

 Option (3) is correct.
 Explanation: Development varies from person to person due to factors such as genetics, environment, and experiences. Individuals may achieve developmental milestones at different rates, making it evident that development is not uniform. This variation in the pace and pattern of development is what leads to the understanding that there are individual differences in how people grow and progress.

2. Option (3) is correct.

Explanation: A is true, as the provision of distributing mid-day meals in schools ensures meeting the nutritional values of students. The mid-day meal was launched with the aim that at least one balanced diet is provided, especially to students who belong to low-income families as their families are unable to provide adequate nutritional food for them. R is false, Along with heredity, environmental factors play a crucial role in an individual life. This includes physical emotional, cognitive, and social developments.

3. Option (4) is correct.

Explanation: Be an extension of the family and build upon the things child is familiar with. School is a place designed to provide an adequate learning environment teaching-learning effective for process. It is a miniature society where children learn by interacting with their environment. Schools are considered as a centre for socialization and their primary function as an agent of society is to provide children with an understanding of their environment to help them to adapt the social order.

Other Functions of School as an Agent of Society:

 Helping learners acquire values, norms, and traditions.

- Making learners able to learn the importance of social cohesion and unity.
- Instilling informal cues about social roles in learners through interaction.

Hence it could be concluded that the primary function of the school as an agent of society is to provide children with an understanding of their environment.

4. Option (1) is correct.

Explanation: According to Piaget's Theory of Cognitive Development, assimilation, accommodation, and equilibrium are the ways through which children integrate new experiences into their already existing cognition structures (schema). Assimilation is referred to:

- process of taking in information into our previously existing schemas.
- the way an individual takes and interprets new information using pre-existing mental structures without necessarily modifying them.
- addition of a new concept or experience into an existing schema. For example, the baby's sucking of thumb is an initial schema.

Accommodation is referred to:

- altering existing ideas or schemas as a result of new experiences.
- adjusting to new ways of thinking and behaving by making modifications in one's existing cognitive structures.
- revising of an existing schema to suit the new experience. For example, the baby modifies the way it sucks to include sucking on a new toy.

Therefore, it becomes clear that according to Jean Piaget, the process of developmental change takes place through assimilation and accommodation.

Option (2) is correct.

5.

6.

Explanation: Cognitive development involves processes such as knowing, thinking, remembering, recognizing, categorizing, imagining, reasoning, decision-making, and so forth. According to Piaget, children's understanding of the world expands as they experience new ideas and challenges. Children construct their knowledge through interactions with their surroundings. Cognitive development proceeds as children mature. Piaget divided cognitive development into four stages.

- Sensorimotor (Birth 2 years) & Preoperational (2-7 years)
- Concrete Operational (7-11 years) & Formal Operational (11 years and above)

Option (2) is correct.

Explanation: According to Lawrence Kohlberg's theory of moral development, the pre-conventional level is the first stage of moral reasoning. At this level, individuals base their moral judgments on the consequences of their actions. They view actions as morally right if they lead to positive outcomes or rewards, and morally wrong if they lead to negative consequences or punishment. This stage is primarily concerned with selfinterest and a simple understanding of authority and obedience. The focus on obeying or disobeying rules based on their consequences is a characteristic feature of the preconventional level.

7. Option (2) is correct.

Explanation: Vygotksy's sociocultural theory emphasizes the importance of social interaction and cultural context in cognitive development. According to this theory, a teacher who believes in Vygotksy's ideas would encourage interaction and dialogue among students to promote collaborative learning. Additionally, the teacher would provide scaffolding, which involves offering support and guidance to students as they work on tasks that are slightly beyond their current level of understanding.

This approach helps students build their skills and knowledge by providing assistance when needed and gradually reducing it as they become more capable. This is in contrast to simply offering rewards or punishments to regulate behavior or focusing solely on forming associations between stimuli and responses.

8. Option (2) is correct.

Explanation: The gap between what the child can do independently and with assistance. 'Lev Vygotsky', a Soviet psychologist, has propounded the "Socio-cultural Theory". This theory implies the idea that social interaction plays a crucial role in the development of learners' cognitive ability.

According to Vygotsky, 'zone of proximal development' or 'ZPD' refers to the:

- the gap between what the child can do independently and with assistance.
- difference between what a learner can do on his/her own and what he/she can do with someone's help.
- range of tasks too difficult for the child to do alone, but possible with the help of adults and more skilled peer.
- distance between learners' actual development level and his/her level of development under someone's guidance.

9. Option (3) is correct.

Explanation: Emphasis only on course completion with a structured curriculum. The child-centred education places learners at the centre and gives primacy to child's experiences and needs. It strongly believes that when children are given the freedom to work at their own pace, they develop the ability to assimilate concepts efficiently. Characteristics of the child-centred teaching and learning:

- It stresses the importance of enquiry, observation and investigation.
- It takes into account learner's capabilities, capacities and learning styles.
- It uses methods like experiential learning, problem-solving, concept mapping and creative writing.
- It emphasises providing ample opportunities for children to foster their own strategy of learning to perform a task.
- In this method, teachers facilitate students as a facilitator by providing with proper

environment and materials to learn at their own pace.

 Students work in flexible, cooperative groupings to solve problems to demonstrate an understanding of the task that ensures their holistic development.

10. Option (1) is correct.

Explanation: Are not Culturally fair. Intelligence refers to the capacity to acquire and apply knowledge. It is the ability to solve problems, learn from experiences, and apply knowledge to deal with new situations. "IQ" stands for "intelligence quotient." A person's IQ is a score derived from standardized tests that were designed to measure human intelligence and intellectual potential. IQ tests include a variety of questions that measure reasoning and problem-solving skills.

11. Option (2) is correct.

Explanation: The print-rich environment in the classroom:

- A print-rich environment is one where young children get many different opportunities to interact with many different forms of print.
- That is, in order to be truly printrich, a classroom needs to display and use print meaningfully during teaching and learning.
- This exploration of print in meaningful contexts and observing adults around the use of print is critical for literacy development because it shows children that print carries meaning and that reading and writing serve real, everyday purposes.
- Over time, children become motivated to try to read and write themselves and they can develop language.
- "A print-rich environment is one in which "children interact with many forms of print, including signs, labelled centers, wall stories, word displays, labelled murals, bulletin boards, charts, poems, and other printed materials.
- A print-rich environment in a primary classroom is essential for the language development of children.

12. Option (3) is correct.

Explanation: Assertion (A) is true, as research suggests that children often learn gender-appropriate behaviors by observing and imitating same-sex adults. However, Reason (R) is false, as gender is not solely a biological construct. It is a complex interplay between biology, culture, society, and personal identity. Gender roles and behaviors are influenced by a

combination of biological, social, and environmental factors, not just biology alone.

13. Option (2) is correct.

Explanation: Interacting with a diverse group of students requires self-awareness. Reflecting on one's own stereotypes and biases helps the teacher avoid unintentional discrimination or favoritism, leading to a more inclusive and respectful learning environment. This approach ensures that the teacher treats all students fairly and acknowledges their individual backgrounds and experiences.

14. Option (1) is correct.

Explanation: Holistic and continuous assessment focuses on evaluating a student's overall development and progress over time, taking into account various aspects of their learning journey. This approach considers multiple dimensions such as skills, knowledge, and attitudes. It provides a more comprehensive understanding of a student's abilities compared to isolated exams or standardized testing. Continuous assessment involves ongoing observations, projects, discussions, and various forms of evaluation that contribute to a more accurate representation of a student's capabilities. This approach is student-centered and aligns with modern educational philosophies emphasizing individual growth and learning process understanding.

15. Option (2) is correct.

Explanation: Critical thinkers are known for their ability to analyze information, evaluate evidence, and think independently. They do not simply follow instructions blindly; instead, they engage in questioning, reasoning, and examining multiple perspectives. They seek to understand and evaluate information critically before making judgments or decisions. Openmindedness, inquisitiveness, asking, clarifying questions, and assessing the credibility of sources are all characteristics commonly associated with critical thinking.

16. Option (3) is correct.

Explanation: Universal Design for Learning (UDL) is an educational framework that promotes flexible learning environments and instructional strategies that accommodate the diverse needs of students. UDL aims to provide multiple means of representation, expression, and engagement to address different learning styles, abilities, and preferences. It encourages educators to create inclusive classrooms where all students can access and participate in learning activities effectively, regardless of their individual needs. By incorporating UDL principles, educators can design instruction and materials that are flexible, adaptable, and responsive to the unique needs of each child, promoting equity and inclusivity in the learning environment.

17. Option (4) is correct.

Explanation: Multicultural education is an approach that recognizes and values the diverse cultural backgrounds, experiences, and perspectives of students. It aims to promote understanding, respect, and inclusion among all students. Creating a classroom ethos where every child feels a sense of belonging is a fundamental aspect of multicultural education. It involves fostering an inclusive and supportive environment that celebrates and appreciates the cultural diversity within the classroom. This can be achieved through activities, discussions, and learning experiences that promote cultural awareness, empathy, and cross-cultural understanding. By creating an inclusive classroom environment, teachers can help students develop a positive selfidentity, appreciate diversity, and engage in meaningful interactions with their peers from different cultural backgrounds.

18. Option (1) is correct.

Explanation: Autism, or Autism Spectrum Disorder (ASD), is a neurodevelopmental disorder characterized by challenges in social interaction, communication, and repetitive behaviors or interests. Repetitive motor actions, also known as stereotypic or repetitive movements, are common in individuals with autism. These movements can include hand flapping, body rocking, spinning objects. Difficulty or making friends or engaging in social interactions is another hallmark of autism. Despite having strengths in certain areas, such as attention to detail, individuals with autism often face challenges in understanding and responding to social cues and building peer relationships. It is important to note that a proper assessment by a qualified professional is necessary to diagnose autism accurately.

19. Option (3) is correct.

Explanation: Assistive technology refers to devices, equipment, or systems that are designed to enhance the abilities and independence of individuals with disabilities. In the case of hearing impairment, one example of assistive technology is a sound amplifier or hearing aid. Sound amplifiers are electronic devices that are worn in or behind

the ear to amplify sound and make it easier for individuals with hearing loss to hear and communicate.

The other options you mentioned are not specifically designed to aid hearing:

- (1) Braille system: This is a tactile writing system used by individuals who are blind or visually impaired to read and write. It is not directly related to hearing impairment.
- (2) Walking stick: A walking stick, also known as a cane, is primarily used for individuals with visual impairments to navigate their surroundings. It is not directly related to hearing impairment.
- (4) Eyeglasses: Eyeglasses are used to correct vision problems and are not designed for aiding hearing.

Therefore, the correct answer is (3) Sound amplifier, as it is specifically designed to assist individuals with hearing loss.

20. Option (1) is correct.

Explanation: The important characteristics of creativity among the options you provided are:

- (i) Divergent thinking: Divergent thinking refers to the ability to generate multiple ideas, solutions, or possibilities when faced with a problem or a creative task. It involves thinking outside the box, exploring various perspectives, and generating a wide range of ideas.
- (ii) Originality of ideas: Originality is an important aspect of creativity. It involves producing novel, unique, and unconventional ideas or solutions that are not commonly found or replicated.
- (iii) Flexibility: Flexibility in thinking allows individuals to adapt and modify their ideas or approaches when faced with new information, feedback, or changing circumstances. It involves being open to different perspectives, considering alternative options, and adjusting one's thinking as needed.

Convergent thinking, listed as (iv), is not considered a characteristic of creativity. Convergent thinking is the ability to find a single, correct answer or solution to a problem. It typically involves logical and analytical thinking rather than the exploration of multiple possibilities and originality.

So, the correct characteristics of creativity among the options provided are:

- (i) Divergent thinking
- (ii) Originality of ideas
- (iii) Flexibility

21. Option (1) is correct.

Explanation: Effective learning is facilitated when teachers design activities that take into account students' prior knowledge and experiences. Building on their existing understanding allows for meaningful connections to be made, promoting deeper learning and comprehension. This approach aligns with constructivist pedagogy, where new knowledge is constructed upon a foundation of prior knowledge.

22. Option (4) is correct.

Explanation: Among the statements you provided about alternative conceptions among children, the most accurate one is statement (4): "Alternative conceptions are the naive theories that children construct about phenomena around them." This statement aligns with the concept of alternative conceptions or alternative frameworks in the field of cognitive development.

Alternative conceptions, also known as misconceptions or intuitive theories, are the ideas or explanations that children develop to make sense of the world around them.

23. Option (2 & 3) is correct.

Explanation: Encouraging children to make intuitive guesses: Intuitive guessing can be a useful approach in problem solving, as it allows students to tap into their existing knowledge and make educated guesses. By encouraging students to trust their intuition and take risks, teachers can foster creativity and develop critical thinking skills.

(3) Writing step-by-step solutions to the problem: Providing step-bystep solutions can be beneficial for students, particularly when they are first learning a new concept or skill. This approach helps students understand the logical progression of problem solving and provides a framework for tackling similar problems in the future. However, it is crucial for teachers to also encourage students to think independently and find alternative approaches or solutions, rather than relying solely on the provided steps.

24. Option (2) is correct.

Explanation: As a class teacher, it is important to adopt facilitative strategies that are supportive and helpful for an underachieving child. Out of the options you provided, option (2) would likely be the most useful approach. Here's why: it involves identifying the reasons for the student's underachievement and setting short-term, achievable goals. This approach allows the teacher to understand the individual needs and challenges of the student,

providing personalized support and guidance. By setting realistic goals, the student can experience a sense of accomplishment and gradually improve their performance.

25. Option (1) is correct.

Explanation: Dialogue is a pivotal activity for nurturing conceptual understanding in children. Through conversations, kids engage actively with ideas, pose queries, and delve into topics. This interactive approach encourages critical thinking, as they dissect concepts from various angles. Unlike passive lectures or rigid direct instruction, dialogue fosters a dynamic exchange of thoughts, letting children construct meaning collaboratively. This process aids in internalizing concepts and enhances retention. Overall, fostering a dialogic environment empowers children to grasp and apply complex ideas effectively, promoting genuine comprehension.

26. Option (3) is correct.

Explanation: Experiential learning, as per the National Education Policy 2020, does not solely rely on the promotion of traditional bookish knowledge. It emphasizes the development of real and scientific understanding in students through experiences and experiments. Therefore, option (iii), which states that experiential learning is completely based on the promotion of traditional bookish knowledge, is incorrect.

Option (i), which suggests that experiential learning makes the teacher more active than the students, is also incorrect. Experiential learning encourages active participation and engagement from the students, as they are directly involved in handson experiences and experiments. Option (ii) correctly states that experiential learning helps in connecting past experiences to gaining new knowledge and the transfer of positive learning.

Therefore, the correct answer is (3) (iii), (iv).

27. Option (4) is correct.

Explanation: Excitement is an emotion that facilitates the process of meaningful learning. When students feel excited about a topic or activity, their engagement and motivation increase. This heightened emotional state promotes active participation, curiosity, and a desire to explore and understand the subject matter. Excitement triggers the brain's release of dopamine, which enhances attention and memory, leading to a more effective learning experience. Apart from it there are many emotions that facilitate the process of meaningful learning, these are-

- Happiness
- Hope
- Pride
- Curiosity
- Enjoyment

Curiosity: The impulse/emotion or desire to investigate, observe, or gather information, particularly when the material is novel or interesting. It refers students to get the roots of the problem conceptually.

28. Option (4) is correct.

Explanation: Children learn best through the process of guided discovery. Guided discovery is an instructional approach where educators facilitate learning providing by students with opportunities to explore concepts, problems, and solve draw conclusions on their own, under guidance. This approach encourages active engagement, critical thinking, and problem-solving skills. By allowing students to explore and uncover information themselves, guided discovery promotes a deeper understanding of concepts and enhances their ability to apply knowledge in various contexts. This learner-centered approach fosters a sense of ownership and curiosity, leading to more meaningful and lasting learning outcomes.

29. Option (3) is correct.

Explanation: The higher order ability that involves thinking about one's own thinking is option (3) Metacognition. Metacognition refers to the awareness and understanding of one's own cognitive processes, including knowledge about how to plan, monitor, and evaluate one's thinking and learning. It involves reflecting on one's own thoughts, assessing the effectiveness of strategies, and making adjustments to improve learning and problemsolving.

30. Option (4) is correct.

Explanation: By considering students' interests: One of the most powerful ways to foster intrinsic motivation is by tapping into students' interests and incorporating them into the learning process. When teachers take the time to understand what topics, activities, or approaches engage their students, they can tailor their instruction to align with those interests. This creates a sense of autonomy, relevance, and personal investment, which are crucial for nurturing intrinsic motivation. When children find personal meaning and value in what they are learning, they are more likely to engage, persist, and develop a lifelong love for learning.

Mathematics and Science

31. Option (3) is correct. Explanation: To find the largest fourdigit number, we subtract 1 from the smallest five-digit number. The smallest five-digit number is 10,000 So the largest four-digit number is

10,000 - 1 = 9,999When we add 1 to this number, we get

9,999 + 1 = 10,000

which is the smallest 5-digit number.

32. Option (3) is correct.

Explanation: The teacher is trying to explain the commutative property. The commutative property states that for addition and multiplication, the order of the numbers can be changed without affecting the result.

In this case, the teacher is demonstrating that the order of the numbers can be swapped in addition (6 + 4 = 4 + 6)and multiplication $(6 \times 4 = 4 \times 6)$ the results remain the same.

Therefore, the property being explained by the teacher is the commutative property.

33. Option (2) is correct.

Explanation: A prime number is a number greater than 1 that has no positive divisors other than 1 and itself. Let's analyze the given options:

- (1) 1 : 1 is not a prime number because it only has one positive divisor, which is 1.
- (2) 2:2 is a prime number because it has exactly two positive divisors, 1 and 2.
- (3) 9 : 9 is not a prime number because it has more than two positive divisors. In addition to 1 and 9, it is also divisible by 3.
- (4) 4 : 4 is not a prime number because it has more than two positive divisors. In addition to 1 and 4, it is also divisible by 2.
- **34. Option (2) is correct. Explanation:** Let the fraction be *x*.

Reciprocal of the fraction $=\frac{1}{2}$

According to question,

$$x \times x = x^{2}$$

$$x^{2} \div \frac{1}{x} = 2\frac{10}{27}$$
Or,
$$x^{2} \times x = \frac{64}{27}$$
Or,
$$x^{3} = \frac{64}{27}$$
Or,
$$x^{3} = \left(\frac{4}{3}\right)^{2}$$
Or,
$$x = \frac{4}{3}$$
So,
$$x = 1\frac{1}{3}$$

35. Option (2) is correct. Multiplying (1) by 3 and adding (1) Explanation: To find the number that +(3)should be added to 0.01 to get 1.1, we can subtract 0.01 from 1.1 : 1.1 - 0.01 = 1.09Therefore, the number that should be Or, added to 0.01 to get 1.1 is 1.09. Or, So, option (2) is correct. 36. Option (4) is correct. So, Explanation: In algebraic operations, Putting value of y in (1), like terms are added or subtracted and unlike terms are typically left as Or, they are in addition and subtrac-tion. However, when it comes to multi-Or, plication, both like and unlike terms So, can be multiplied together. 39. 37. Option (2) is correct. Explanation: Given, Ratio of age of Hari and Harry = 5:7 Age of Hari = 5x years So, Age of Harry = 7x years After 4 years, Age of Hari = (5x+4) years Age of Harry = (7x+4) years According to question, $\frac{5x+4}{7x+4} = \frac{3}{4}$ To solve this equation, we can crossmultiply: 4(5x+4) = 3(7x+4)20x + 16 = 21x + 1220x - 21x = 12 - 16-x = -4x = 4Now we can find the present ages of Hari and Harry: Present age of Hari = 5x40. = 5(4)= 20 years Present age of Harry = 7x= 7(4)= 28 years 38. Option (2) is correct. Explanation: Let's assume the digit in the tens place as "x" and the digit in the unit place as " η ". According to the given information, the digit in the tens place exceeds the digit in the unit place by 4, which can be represented as: x - y = 4The sum of the digits is $\frac{1}{7}$ of the number, which means: $x + y = \frac{1}{7} \times (10x + y)$...(2) To simplify equation 2, we can multiply both sides by 7: 7(x+y) = 10x+y7x + 7y = 10x + y

7x - 10x = y - 7yOr, -3x = -6yOr, -3x + 6y = 0...(3) Now, x - y = 4...(1) -3x + 6y = 0...(3)

x = 8Option (2) is correct. Explanation: To find the simple interest (*x*) on ₹30,000 at 15% per annum for 3 years, we can use the formula: Simple Interest (x)= <u>Principal × Rate × Time</u> 100 Putting *x* in the given values: $30000 \times 15 \times 3$ _ x = 13500So, Simple interest = ₹13500 Now, let's calculate the value of 2x + 50Or, $2x + 50 = 2 \times 13500 + 50$ 2x + 50 = 27000 + 50So, 2x + 50 = 27050Therefore, the value of 2x + 50 is 27050 Option (2) is correct. **Explanation:** $(4x^2 - 12x + 9)(ax^2 + bx)$ $(2x^2 - 3x)$ $(4x^2-6x-6x+9){x(ax+b)}$ $\{x(2x-3)\}$ ${2x(2x-3)-3(2x-3)}$ ${x(ax+b)}$ x(2x-3)(2x-3)(2x-3)x(ax+b)x(2x-3)Cancelling (2x - 3) and x from numerator and denominator, = (2x-3)(ax+b)= (ax+b)(2x-3)41. Option (3) is correct. Explanation: Let's calculate the of $\left(\frac{x+y+z}{2}\right)^2 = \frac{(x+y+z)^2}{2^2}$ the given information:

3x - 3y = 12

0 + 3y = 12

3y = 12

 $y = \frac{12}{3}$

y = 4

x - y = 4

x - 4 = 4

x = 4 + 4

100

-3x + 6y = 0

A hexagonal pyramid has 1 base, 6 triangular faces, 6 edges on the base and 6 edges along the triangular faces. The number of faces (x) = 1 (base) + 6 (triangular faces) = 7.

The number of edges (y) = 6 (edges on the base) + 6 (edges along the triangular faces) = 12.

The number of vertices (z) = 6(vertices on the base) + 1 (apex) = 7. Now, let's substitute these values into the given expression:

$$\frac{(x+y+z)^2}{2^2} = \frac{(7+12+7)^2}{2^2}$$
$$= \frac{(26)^2}{4} = \frac{676}{4}$$
$$= \frac{338}{2}$$

Therefore, the value of $\frac{(x+y+z)^2}{2^2}$

is 169.

42. Option (1) is correct. Explanation: To construct a triangle, the sum of the lengths of any two sides must be greater than the length of the third side.

In this case, the sides are given as (2p -1) cm, (2p + 1) cm and 12 cm.

So, (2p-1) + (2p+1) > 122p - 1 + 2p + 1 > 12Or, So, 4p > 12 $p > \frac{12}{4}$ Or,

p > 3

Therefore, p must always be greater than 3 in order to construct the triangle.

43. Option (3) is correct. **Explanation:** A right angle measures

90°. To find four and two-thirds of a right angle, we can calculate:

and
$$\frac{2}{3} \times 90^{\circ}$$

First, let's convert the mixed fraction into an improper fraction:

4 and
$$\frac{2}{3} = \frac{(3 \times 4 + 2)}{3} = \frac{14}{3}$$

Now, let's multiply $\frac{14}{3}$ by 90°:

$$\left(\frac{14}{3}\right) \times 90^{\circ} = \frac{(14 \times 90^{\circ})}{3}$$
$$= \frac{1260^{\circ}}{3}$$
$$= 420^{\circ}$$

Therefore, four and two-thirds of a right angle measures 420°.

Option (2) is correct. 44.

value

using

Explanation: In a rectangle, opposite sides are equal and parallel. Each angle of rectangle is of 90°. Diagonals bisect each other but not at right angle.

In a square, all the properties of a rectangle are also applicable. Since a square is a special type of rectangle where all sides are equal, the diagonals of a square are perpendicular as well. On the other hand, in a rhombus, the diagonals are always perpendicular to each other. A rhombus has opposite angles that are equal but they are not

right angles in general. Therefore, the diagonals of a rhombus are not always equal.

In a parallelogram, the diagonals are not guaranteed to be perpendicular. A parallelogram has opposite sides that are parallel but the angles are not necessarily right angles, so the diagonals are not always perpendicular.

Therefore, the quadrilaterals in which the diagonals are perpendicular to each other are specifically the rhombus and the square.

45. Option (3) is correct.

Explanation: A line of symmetry is an imaginary line that divides a figure into two equal halves, such that each half is a mirror image of the other.

- An isosceles triangle can have a line of symmetry whereas an equilateral triangle, where all sides and angles are equal has three lines of symmetry.
- A kite can have one line of symmetry, which is the line joining the midpoints of its nonparallel sides.
- A parallelogram can't a line of symmetry but it has a rota-tional symmetry. When the parallelogram is rotated by 180°, the same figure is obtained.
- A circle has infinite lines of symmetry passing through its center, but no single line divides it into two equal mirror image halves.
- Therefore, the correct answer is (3) Parallelogram.

46. Option (3) is correct.

Explanation: The volume of a cube is given by the formula $V = s^3$, where s is the length of one side of the cube. Let's assume the side lengths of the two cubes are s_1 and s_2 , respectively. According to the given information, the volumes of the cubes are in the ratio 27 : 64, which can be expressed

 $(s_1^3):(s_2^3) = 27:64.$

Taking the cube root of both sides of the equation, we have

 $s_1: s_2 = 3: 4.$

The surface area of a cube is given by the formula $A = 6s^2$, where s is the length of one side of the cube. Now, the ratio of their total surface areas:

$$(s_1^2):(s_2^2) = (3^2):(4^2)$$

= 9:16

Since the total surface area is proportional to the square of the side length, the ratio of their total surface areas is the square of the ratio of their side lengths.

Therefore, the correct ratio of their total surface areas is

 $(3^2): (4^2) = 9: 16.$

Explanation: The area of a rectangle is given by the formula A =length × width, and the area of a square is given by the formula $A = side^2$. Let's denote the width of the

rectangle as w. According to the given information, the area of the rectangle with length 18 cm is equal to the area of the square

with side 12 cm:

 $18w = 12^2$

18w = 144

Dividing both sides of the equation by 18, we get:

$$w = 8$$

Therefore, the width of the rectangle is 8 cm.

The perimeter of a rectangle is given by the formula

P = 2(length + width).Substituting the values, we have:

P = 2(18 + 8)

$$=2(26)$$

 $= 52 \, \text{cm}$

Hence, the perimeter of the rectangle is 52 cm.

48. Option (1) is correct.

Explanation: To find the area of a trapezium, we can use the formula:

Area = $\frac{1}{2}$ × Sum of parallel sides

×height

In this case, the trapezium has nonparallel sides of length 20 cm each, a height of 16 cm and a perimeter of 104 cm.

Let's denote the lengths of the parallel sides as *a* and *b*.

Since the perimeter of a trapezium is the sum of all its sides:

$$b + 20 + 20 = 104$$
$$a + b = 104 - 40$$

a + b = 64

Substituting these values into the formula for the area, we have: Area of trapezium

a +

 $=\frac{1}{2}$ × (sum of parallel sides)

× height

$$= \frac{1}{2} \times (a+b) \times 16$$
$$= \frac{1}{2} \times 64 \times 16$$
$$= 64 \times 8$$

$$= 512 \, \mathrm{cm}^2$$

Therefore, the area of the trapezium is 512 cm².

Among the given options, option (1) is correct.

Option (4) is correct. 49.

Explanation: The characteristic of the median of a data is that it does not get affected by extreme scores of the data.

The median is not affected by (1) extreme scores because it is simply the middle value in a dataset when arranged in order. Extreme scores on either end of the dataset do not affect the position of the middle value.

- Finding the mean involves summing up all the values in the dataset and dividing by the number of values. The mean is a different measure of central tendency and is not the same as the median.
- (3) The median is not always equal to the mode. The mode represents the value(s) that occur most frequently in the dataset and may or may not coincide with the median.
- The correct characteristic is that (4) the median does not get affected by extreme scores of the data. This means that very large or very small values in the dataset do not influence the position of the middle value while calculating the median.

Therefore, the correct answer is (4); It does not get affected by extreme scores of the data.

50. Option (2) is correct.

> Explanation: The total number of slips in the box is 10, numbered from 1 to 10.

The number of slips that are greater than 6 is 7, 8, 9, and 10.

- The probability of selecting a slip with a number greater than 6 is given by:
- Number of favourable outcomes Total number of possible outcomes
- Number of favorable outcomes
 - = 4 (number of slips greater than 6)
- Total number of possible outcomes
 - = 10 (total number of slips in the box)

Therefore, the probability is $\frac{4}{10}$

which simplifies to
$$\frac{2}{5}$$
.

51. Option (2) is correct.

Explanation: Mathematical reasoning involves the ability to think logically, analyze problems and make deductions based on mathematical principles. It focuses on understanding concepts, identifying relationships and applying logical thinking to solve problems.

The other options, (1) Recognising patterns, (3) Identifying relationships and (4) Formulating hypotheses, are all essential processes in mathematical reasoning:

Recognising patterns helps in identifying regularities and recurring elements in mathematical problems, which can lead to insights and solutions.

Identifying relationships involves understanding the connections and dependencies between different mathematical concepts or variables, which is crucial for problem-solving and making logical deductions.

Formulating hypothesis is an important part of mathematical reasoning, where one makes educated guesses or assumptions based on observations or patterns and then tests them through logical reasoning and mathematical principles.

However, (2) Memorising a formula does not align with mathematical reasoning. While it may be useful to remember formulas in mathematics, mathematical reasoning focuses on understanding the underlying concepts and principles rather than relying solely on memorization. It involves logical thinking and problem-solving rather than rote memorization of formulas.

Therefore, the correct answer is (2) Memorising a formula.

52. Option (2) is correct.

Explanation: This method involves visually representing the expansion of the expression $(a + b)^2$ by using the distributive property. The teacher can write $(a + b) \times (a + b)$ on the blackboard and then demonstrate the multiplication step by step, showing how each term is multiplied together. This method helps students to understand the concept of expanding the square of a binomial and reinforces the distributive property. It allows students to see the step-by-step process and provides a clear visual representation of the multiplication. Options (1) Write $(a + b)^2 = a^2 + b^2$ + 2ab on the blackboard and solve related problems as examples and (3) Take a chart of identities in the classroom and help students memorize them, can be useful in introducing the identity and providing examples but they may not provide a clear understanding of how the identity is derived.

Option (4) Make a jingle and help the students memorize all such identities focuses on memorization rather than understanding the concept. While memorization can be useful, it is important for students to understand the underlying principles and concepts behind the identities.

Therefore, option (2) Demonstrate the multiplication, $(a + b)^2 = (a + b) \times$ (a + b), would be the most appropriate method to teach the identity $(a + b)^2$ using chalk and blackboard.

53. Option (3) is correct.

Explanation: The reason behind this observation is that the school curriculum often fails to connect mathematics to the practical applications and real-life situations that are relevant to individuals in these occupations. The teaching methods and examples used in formal school mathematics may not resonate with the experiences and contexts of vendors, construction workers and others in similar occupations.

Mathematics, when taught in a contextually relevant manner, can be more accessible and meaningful to learners. However, if the school curriculum does not incorporate teaching-learning approaches that align with the learners' cultural context and occupational needs, it can create a gap between formal mathematics education and the practical mathematical skills required in their daily work.

It is important to bridge this gap by designing curriculum and teaching strategies that connect mathematical concepts with the practical situations faced by individuals in these occupations. By doing so, mathematical skills can be developed in a more relevant and meaningful way, enabling better understanding and application of mathematics in their professional lives.

Therefore, option (3) School curriculum usually does not incorporate ways of teaching-learning specific to learners' cultural context provides the most appropriate explanation for the observed difficulty in coping with formal school mathematics among individuals in occupations requiring mathematical skills of computation and estimation.

54. Option (1) is correct.

Explanation: When the student states that a 3D shape can be transformed into a 2D shape, they are referring to the process of representing a three-dimensional object on a two-dimensional plane, such as a piece of paper or a screen. This representation is achieved by viewing the 3D object from different sides and capturing its appearance from each perspective.

In order to accurately depict a 3D object in 2D, it is necessary to view it from multiple angles and capture its various faces, edges, and vertices. This process involves visualizing the object from different perspectives and projecting its features onto a 2D surface.

Therefore, the concept that the student is correctly applying in this situation is (1) Viewing objects from different sides.

55. Option (1) is correct.

Explanation: Understanding the concept of division of fractions can be challenging for students, especially in the absence of concrete materials or visual representations that help them make sense of the concept.

Concrete materials, such as fraction manipulatives or physical objects, can provide a hands-on experience and support students in grasping the concept of dividing fractions.

By using concrete materials, students can visually and kinesthetically explore the division of fractions, understand the relationship between the numerator and denominator and develop a conceptual understanding of how fractions are divided. This approach allows students to connect the abstract concept of dividing fractions to real-life situations or practical scenarios.

If the teacher did not provide opportunities for students to work with concrete materials or failed to develop the concept of division of fractions using hands-on activities before introducing the standard algorithm, it can result in students struggling to see the real-life applications of the concept.

Options (2) there are hardly any reallife applications of fractions, (3) the student did not pay attention when the teacher was teaching the topic and (4) Division of fractions is a difficult concept for a class VII student are not the most appropriate reasons in this context. Fractions have numerous real-life applications, paying attention in class does not guarantee understanding of the concept and the difficulty of the concept varies from student to student.

Therefore, option (1) The teacher did not develop the idea of division of fractions using concrete materials before introducing the standard algorithm is the most likely reason for the student's inability to provide a real-life situation for the application of the division of fractions.

56. Option (4) is correct.

Explanation: Probability is a concept that is best understood through hands-on experience and concrete examples. By conducting practical experiments with random events, such as flipping a coin or rolling a dice, students can directly observe and record the outcomes. This allows them to develop an intuitive understanding of probability as they analyze the frequency and likelihood of different outcomes.

Engaging in practical experiments provides a tangible context for students to explore and discuss the concept of probability. They can observe that the probability of certain outcomes, such as getting heads on a fair coin toss or rolling a specific number on a fair dice, lies between 0 and 1. This firsthand experience helps students grasp the idea that probability is a measure of the likelihood of an event

occurring, ranging from impossible (0 probability) to certain (1 probability). While options (1), (2), and (3) can also be useful in teaching probability, they may not provide the same level of concrete experience and direct observation as conducting practical experiments. Writing the formula of probability, using videos, or telling students to do experiments can support their understanding but they may not fully grasp the concept until they engage in hands-on activities and observe the outcomes themselves.

Therefore, option (4) By conducting a practical experiment of any random event like throwing a dice, flipping a coin, etc., and asking students to note the outcomes is the most appropriate way to teach middle school students that the mathematical probability of any outcome in a random event lies between 0 and 1.

57. Option (2) is correct.

Explanation: Research suggests that social and cultural factors play a significant role in shaping gender differences in mathematical achievement. The persistent social stereotype that mathematics is a male domain creates a biased environment in which girls may experience less confidence, lower expectations, and limited opportunities for participation and advancement in mathematics.

The stereotype that mathematics is more suited for boys can lead to subconscious biases and discriminatory practices in the classroom, such as teacher-student interactions, expectations and even peer interactions. These biases can influence girls' self-perception, interest, motivation and ultimately their performance in mathematics.

It is important to note that research indicates no inherent cognitive differences between males and females that would account for gender-based differences in mathematical achievement. Both genders have the capacity to excel in mathematics given equal opportunities and support. Therefore, option (2) Persistent social stereotype carried out in the classroom that mathematics is a male domain is the most appropriate reason for genderbased differences in mathematical achievement in school mathematics education, according to research studies.

58. Option (3) is correct.

Explanation: At the primary level, children's thinking in mathematics progresses from concrete to abstract as well as from abstract to concrete. Initially, children are introduced to mathematical concepts using concrete manipulatives and real-life examples. They engage in hands-on

activities and use physical objects to understand mathematical concepts in a tangible way. This represents the progression from concrete to abstract thinking.

As children gain familiarity and understanding of mathematical concepts, they gradually transition to abstract thinking. They start using symbols, representations and mathematical language to solve problems and reason mathematically. This represents the progression from abstract to concrete thinking.

Both these progressions, from concrete to abstract and from abstract to concrete, are important in children's mathematical development. They provide a balanced approach to learning mathematics, allowing children to build a solid foundation through hands-on experiences and gradually develop the ability to think and work with abstract mathematical ideas.

Therefore, option (3) (A) and (D): abstract to concrete and concrete to abstract, is the correct choice.

59. Option (3) is correct.

Explanation: An open-ended question is a question that allows for multiple possible answers and encourages critical thinking, creativity and discussion. It does not have a fixed or predetermined answer.

Option (3) "Write as many as possible even prime numbers" is an openended question because it prompts the responder to generate a list of even prime numbers, which can have multiple answers. The responder can provide any number of even prime numbers they can think of, without a specific correct answer.

In contrast, options (1), (2) and (4) are not open-ended questions as they either ask for a specific number of objects (option 1), require a specific calculation to find the answer (option 2) or specify a range of numbers to be listed (option 4). These questions have specific answers that can be determined.

60. Option (2) is correct.

Explanation: An interview schedule is a tool used for conducting structured interviews where the assessor asks predetermined questions and records the responses of the students. While interviews can be useful for assessing certain aspects of students' understanding and communication skills, they may not be the most suitable tool for assessing group projects on problem solving in geometry.

In the given scenario, the teacher wants to assess parameters like analytical skills, problem solving skills, presentation skills and participation in group discussions. These parameters are better assessed through other tools such as rating scales, checklists and rubrics.

- A Rating Scale allows the teacher to rate or score the students' performance on specific criteria related to problem solving in geometry.
- (3) A Checklist provides a list of specific skills or behaviors that the students should demonstrate during the group project. The teacher can check off the skills that are observed in each student.
- (4) Rubrics provide a detailed description of different levels of performance for each criterion. The teacher can use a rubric to assess the students' performance based on predefined criteria and levels of proficiency.

These tools (rating scale, checklist, and rubrics) are more appropriate for assessing the multiple parameters mentioned in the scenario and are commonly used for assessing group projects in mathematics.

61. Option (1) is correct.

Explanation: Copper sulphate solution and salt water are good conductors of electricity as they dissociate into ions and carry electric current.So,bulb glows in these cases. Sugar solution can't dissociate into ions. Distilled water is pure form of water.It doesn't contain any minerals or salts dissolved in it.So,it is bad conductor of electricity. So,bulb does not glow in these cases.

62. Option (4) is correct.

Explanation: During this process, the lactose present in milk undergoes fermentation by the action of bacteria (such as Lactobacillus species). This fermentation process converts lactose into lactic acid. The lactic acid, in turn, causes the milk proteins to coagulate and form curd.

Since the chemical composition of the milk changes, and it cannot be reversed back to its original form, the conversion of milk into curd is considered a chemical change. Additionally, the change is irreversible because once the curd is formed, it cannot be transformed back into milk.

63. Option (3) is correct.

Explanation: W is sodium bicarbonate, which is commonly known as baking soda. Baking soda is used in antacids, cleaning products and baking products. Additionally, when turmeric solution is added to sodium bicarbonate, it turns reddish. This option aligns with the given information. Therefore, based on the given information, the correct answer is (3) sodium bicarbonate, basic, reddish, baking soda.

64. Option (2) is correct.

Explanation: It combines the statement that viruses lack cellular structure (A) with the statement that they contain DNA or RNA (B). Both statements are true. Viruses are obligate parasite. They don't have any cellular machinery. So, they depend on host cell to carry out their function.

65. Option (3) is correct.

Explanation: A seismograph typically consists of a suspended mass (pendulum or weight) attached to a fixed base. When an earthquake occurs, the ground shakes, and the suspended mass tends to remain stationary due to inertia. However, the base moves with the shaking motion, causing a relative displacement between the mass and the base.

To detect and record this relative motion, a seismograph incorporates an electromagnet. The electromagnet is fixed to the base, while the mass is attached to a frame that can move relative to the base. As the mass moves, it causes a change in the magnetic field around the electromagnet. This change in magnetic field induces an electrical current in a coil of wire surrounding the electromagnet.

By measuring the electrical current induced in the coil, the seismograph can record the relative motion between the mass and the base, providing valuable information about the intensity and characteristics of an earthquake.

66. Option (1) is correct. Explanation:

Organism		Respiratory organ		
(A)	Earthworm	(II) Skin		
(B)	Cockroach	(III) Tracheal system		
(C)	Dolphin	(IV) Lungs		
(D)	Snail	(I) Gills		

- 67. Option (3) is correct.
 Explanation: The speed of sound depends on the medium through which it travels. In general, the speed of sound is highest in solids, followed by liquids, and then gases.
 Based on the given scenario:
 - Sound travels from water into an iron rod: When sound travels from water (liquid) to an iron rod (solid), the speed of sound increases. This is because the particles in a solid are closer together, leading to faster sound propagation.
 - Sound travels from the iron rod into air: When sound travels from an iron rod (solid) to air (gas), the speed of sound decreases. This is

because the particles in a gas are more spread out compared to those in a solid, resulting in slower sound propagation.

• Sound travels from air back into water: When sound travels from air (gas) back into water (liquid), the speed of sound increases again. This is because the particles in a liquid are closer together compared to those in a gas, facilitating faster sound transmission.

Therefore, the correct answer is: (3) Increase, decrease, increase.

68. Option (4) is correct.

Explanation: Assertion (A) states that there is no frictional force acting on a stationary car. Thisis incorrect because even when a car is stationary, there is still static friction acting between the tires and the road surface. This static friction helps prevent the car from sliding or moving when the brakes are not applied.

Reason (R) states that friction acts only on moving objects. This is also incorrect because friction can act on both stationary and moving objects. In fact, friction is a force that arises whenever two surfaces come into contact and try to slide past each other or are in the process of sliding. Friction acts to oppose the relative motion or tendency of motion between the surfaces.

Since both the assertion and the reason are incorrect, option (4) is the correct choice.

69. Option (2) is correct.

Explanation: When Reena fills the bottle and makes three identical holes at different levels, the water pressure at each hole depends on the depth of the hole from the water surface. The water pressure increases with the depth of the hole.

Since the topmost hole is closest to the water surface, it experiences the least water pressure. As a result, the water from the topmost hole comes out with the least force compared to the other holes. Additionally, due to the lower force, it falls at a shorter distance compared to the other holes. On the other hand, the bottom hole is at the maximum depth from the water surface, so it experiences the highest water pressure. Therefore, the water from the bottom hole comes out with the highest force and falls at a longer distance compared to the other holes.

Hence, option (2) is the correct statement based on Reena's observation and inference.

70. Option (3) is correct.

Explanation: Percolation rate refers to the speed at which water moves through the soil. It is influenced by various factors, including soil texture, organic matter content, and compaction. It is said that fast percolation rate helps in better absorption of water by roots. This statement is true. When the percolation rate is fast, water moves quickly through the soil, ensuring efficient drainage. This, in turn, helps roots to absorb water more effectively, reducing the risk of waterlogged conditions and providing plants with the necessary moisture for growth.

71. Option (4) is correct.

Explanation: Material which has a low melting point and low resistivity, is the best choice for making a fuse wire. A low melting point ensures that the wire will melt easily under excessive current conditions, breaking the circuit. Additionally, low resistivity allows the wire to carry current efficiently under normal operating conditions. Therefore, the correct material for making a fuse wire is: D) Low melting point and low resistivity.

72. Option (2) is correct. Explanation:

- (A) Transpiration creates suction pull which causes water to reach great heights in tall trees. This statement is correct. Transpiration, the process by which water is lost from the leaves of plants in the form of water vapor, creates a suction force known as transpiration pull or tension. This pull helps to draw water upwards from the roots to the leaves, allowing water to reach great heights in tall trees.
- (B) Transpiration helps in maintaining the optimum body temperature in plants. This statement is incorrect. While transpiration does play a role in cooling the plant by the process of evaporation, it is not primarily for maintaining the optimum body temperature plants. The primary in function of transpiration is the transportation of water and minerals from the roots to other parts of the plant and the regulation of water loss and gas exchange in leaves.
- (C) Transpiration helps in the absorption of water by the roots. This statement is correct. Transpiration does not directly assist in the absorption of water by the roots. The absorption of water by roots occurs through the process of osmosis and is facilitated by root structures such as root hairs.

Sometime due to transpiration, all water of xylem tissues are used then capillary force helps to rise water

from roots to them.Water then rises up and transported to other parts of plants due to cohesive-adhesive force.Because of transpiration,a pressure is developed in xylem vessel which causes water to be pulled up and transported to all parts of plants.

73. Option (4) is correct.

Explanation: In a mirror reflection, the left and right sides are reversed. Therefore, the quarter past three position on the clock, which is originally on the right side, would appear on the left side in the mirror. The mirror reflection of the hour hand would point towards the nine instead of the three, indicating three-quarters past eight.

74. Option (1) is correct.

Explanation: Oviparous refers to the mode of reproduction where animals lay eggs. In the case of hens, they lay eggs as their mode of reproduction. The eggs are fertilized internally by a rooster but they develop and hatch externally outside the hen's body. This makes them oviparous and the eggs are laid externally.

75. Option (3) is correct.

Explanation: The time period of a simple pendulum is the time taken for one complete oscillation, i.e., the time taken for the pendulum to swing from one extreme position to the other and back. The factors that affect the time period of a simple pendulum are:

- Length of the pendulum: The time period of a simple pendulum is directly proportional to the square root of its length. Therefore, the length of the pendulum does influence the time period.
- Acceleration due to gravity: The time period of a simple pendulum is inversely proportional to the square root of the acceleration due to gravity. In other words, the time period depends on the gravitational field strength of the location where the pendulum is being used.
- The angle of displacement: The time period of a simple pendulum isslightly affected by the amplitude or angle of displacement, but this effect is negligible for small angles. Therefore, option (3) is the correct choice because the mass of the bob and the material of the bob do not affect the time period of a simple pendulum.

76. Option (4) is correct.

Explanation: While all the options listed are important in cyclone disaster management, early and effective forecast systems play a particularly crucial role. Cyclones are powerful and destructive natural phenomena and being able to accurately predict

their formation, intensity and path can significantly contribute to mitigating their impact. Early and effective forecast systems enable authorities to issue timely warnings and advisories to the communities at risk, allowing for evacuation plans to be implemented in advance. This helps in saving lives and minimizing injuries. Additionally, accurate forecasts provide valuable information for resource allocation and distribution, as well as for planning and coordinating emergency response efforts.

77. Option (2) is correct.

Explanation: To solve this problem, let's analyze the information given: Distance between Delhi and Agra: 180 km, Time taken by Seeta to reach Agra: 5 hours Speed of the car while returning: 60 km/hr

Time taken for the return journey

 $= \frac{\text{Total distance}}{\text{Total time taken}}$ Time taken for

the return journey =
$$\frac{180 \text{ km}}{60 \text{ km/h}}$$

Time taken for the return journey = 3 hours

Now, Total time taken

- = Time taken to reach Agra + Time taken for the return journey
- = 5 hours + 3 hours
- = 8 hours

To find the average speed for the entire journey, we can use the formula:

Average speed = $\frac{\text{Total distance}}{\text{Total time taken}}$ Average speed = $\frac{180 \text{ km} + 180 \text{ km}}{8 \text{ hours}}$

8 nours

Average speed = $\frac{360 \text{ km}}{8 \text{ hours}}$

Average speed = 45 km/hr Therefore, the correct answer is: 8 hours, 45 km/hr

78. Option (3) is correct.

Explanation: The shape of red blood cells (RBCs) is disc-shaped, like a biconcave disc. This shape provides a large surface area-to-volume ratio, which is advantageous for the exchange of gases, specifically oxygen and carbon dioxide, in the blood-stream. The disc shape allows RBCs to squeeze through narrow capillaries and facilitates efficient gas exchange with surrounding tissues.

79. Option (1) is correct.

Explanation: When X and Y combine to form a compound Z, the atoms of X and Y are not the same. Compounds are formed when different elements chemically combine, resulting in a new substance with distinct properties. Therefore, the correct answer is: (1) Atoms of X and Y are same.

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80. Option (3) is correct.

Explanation: Oil acts as a barrier against rust. It forms a protective covering on the metal due to which air and moisture can't react with metal and thus prevents rusting. Boiling water causes elimination of dissolved gases within it .So, when oxygen is absent in water, rusting of iron will not take place.

Soda lime prevents rusting as it absorbs moisture or water vapours from the iron nail

Tap water can accelerate rusting because its dissolved oxygen react with iron nail to form oxide.

81. Option (4) is correct.

Explanation: This statement is true. Science encourages a sceptical and critical mindset. Scientists constantly question existing knowledge, theories and explanations in order to advance our understanding of the natural world. Scepticism is a fundamental aspect of the scientific method, as it drives the need for evidencebased reasoning and the testing of hypotheses. This statement is true. Science often requires collaboration and integration across different disciplines. Complex scientific problems often require expertise from various fields, such as biology, chemistry, physics, mathematics, computer science and to more. Interdisciplinary approaches help scientists tackle complex issues from multiple perspectives, leading to a deeper understanding of the natural world. Therefore, the correct statement(s) are (1) (A) Science promotes scepticism and (C) Science is interdisciplinary.

82. Option (3) is correct.

Explanation: When children have naive conceptions or misconceptions about various science concepts and phenomena, it is important for teachers to challenge these misconceptions by providing counter evidence. This helps children correct their understanding and develop more accurate scientific knowledge. Ignoring these misconceptions (option 1) can hinder the learning process, while simply replacing them with correct information (option 2) may not address the underlying misconceptions. Using naive conceptions for grading (option 4) would not be appropriate as it does not consider the opportunity for learning and growth. Therefore, the most appropriate approach is to challenge these misconceptions by presenting evidence and facilitating the development of a more accurate understanding of scientific concepts.

83. Option (1) is correct.

Explanation: By providing examples that do not fit the concept or demonstrate its limitations, students are encouraged to think critically and develop a deeper understanding of boundaries of the concept and defining features. Non-examples can help students to identify common misconceptions, compare and contrast different instances and refine their conceptual frameworks.

84. Option (3) is correct.

Explanation: Let's break down each statement to understand why they align with a constructivist science classroom:

- (A) The role of dialogue is given attention: In a constructivist science classroom, dialogue is given importance. Students are encouraged to actively participate in discussions, ask questions, and engage in conversations with their peers and teachers. Dialogue helps students construct their own understanding of scientific concepts, share their ideas and engage in collaborative learning.
- (B) Students' multiple perspectives are acknowledged: Constructivist classrooms value and acknowledge the multiple perspectives of students. They recognize that each student brings their own background knowledge, experiences and ideas to the learning process. By valuing and respecting these perspectives, teachers can create a rich and inclusive learning environment where students feel encouraged to contribute and share their unique points of view.
- Assessment focuses on correct **(E)** and scientific responses: In a constructivist science classroom, assessment is not solely focused on finding correct answers but also on understanding students' thought processes and reasoning. Assessments are designed to evaluate students' ability to apply scientific principles, think critically, and explain their reasoning. While correct and scientific responses are important, the emphasis is also placed on understanding how students arrived at those responses and their ability to justify their thinking.

The statements (C) Connection between Science and other subject areas is highlighted and (D) Objectivity in responses is given importance are not specifically aligned with a constructivist science classroom. Therefore, the correct statement is (3) (A) The role of dialogue is given attention, (B) Students' multiple perspectives are acknowledged, and (E) Assessment focuses on correct and scientific responses.

85. Option (2) is correct.

Explanation: An inclusive science classroom is characterized by:

(2) Individualized instructional plans: In an inclusive science classroom, individualized instructional plans are commonly used to cater to the diverse needs and abilities of students. These plans consider students' unique learning styles, strengths and areas of growth. Teachers may adapt their teaching methods, materials, and assessments to ensure all students have equitable opportunities to engage with and understand scientific concepts.

Therefore, the correct statements regarding an inclusive science classroom are (2) Individualized instructional plans.

86. Option (2) is correct.

Explanation: This statement (S1) is an inference rather than a direct observation. The student is interpreting the behavior of the bar magnet based on their understanding of magnetic poles and the Earth's magnetic field. They are inferring that the end pointing in a particular direction corresponds to the north or South Pole of the magnet. This statement (S2) describes a direct observation. The student is observing that when the bar magnet is freely suspended, it aligns itself in the North-South direction. Therefore, S1 is an inference because it involves interpretation, while S2 is an observation because it describes a direct visual or empirical experience. Hence, the correct statement is (2) S1 is inference and S2 is observation.

87. Option (3) is correct.

Explanation: This question allows for a range of possible answers and speculations about the potential consequences if the moon's rotation and revolution periods were different. It invites students to think critically, analyze cause-andeffect relationships, and engage in hypothetical reasoning. Therefore, the divergent question among the given options is (3) what would happen if the periods of rotation and revolution of the moon were not the same?

88. Option (4) is correct.

Explanation: Let's break down each process skill and explain how they are promoted by the given activity: Observing: In this activity, students are encouraged to observe the food

habits and diet of the children they interview in their neighborhood. They need to pay attention to the types of food consumed, portion sizes, meal timings and other relevant aspects related to their diet. Communicating: The activity involves interviewing 10 children from the neighborhood, which requires effective communication skills. Students need to communicate clearly and actively listen to the children's responses to gather accurate information about their food habits. Additionally, they may need to communicate their findings or conclusions about healthy diet patterns to their teacher or classmates. Defining operationally is not explicitly promoted by this activity as it primarily focuses on observing, questioning, and communicating about the food habits and diet patterns of the children in the neighborhood. Therefore, the process skills being promoted by this activity are (4) observing, communicating.

89. Option (2) is correct.

Explanation: Using gender-sensitive language in the classroom helps create an inclusive environment where all students feel valued and encouraged to participate. By avoiding gender stereotypes and using inclusive language, the teacher can promote equality and empower girls to pursue STEM fields without feeling marginalized. Inviting women scientists to share their experiences, expertise and career journeys can become inspiring role models for girls. It helps challenge the stereotype that STEM fields are primarily maledominated and exposes girls to successful women in these fields, fostering a sense of possibility and aspiration. Based on the above analysis, the correct statement is (2) (A) Use gender-sensitive language and (B) Invite women scientists to class and (C) engage students in examing stereotypes.

90. Option (4) is correct.

Explanation: Assessing learners' reasoning skills is crucial in science. It involves evaluating their ability to think critically, analyse data, draw conclusions and make connections between concepts. By giving importance to learners' reasoning, assessments can focus on their understanding of scientific principles and their ability to apply them in different contexts. Science relies on specific terminology and precise definitions. Assessments that emphasize the use of accurate vocabulary and definitions help evaluate students' understanding of scientific concepts and their ability to communicate their knowledge effectively. Assessing students' grasp

100. विकल्प (2) उचित है।

व्याख्या—गद्यांश के आधार पर, पूछे गए प्रश्न का सबसे उपयुक्त विकल्प होगा अच्छे कर्म करना। यह अनुच्छेद किसी के शरीर, मन और शब्दों से अच्छे कर्म करने के महत्व पर जोर देता है। इसमें प्रेम, नकारात्मक गुणों से मुक्त व्यवहार, सबके साथ मिलकर रहने और दुसरों का सम्मान करने का जिक्र है। ये पहलु अच्छे कर्म करने के विचार से मेल खाते हैं।

101. विकल्प (4) उचित है।

व्याख्या—यह अनुच्छेद शरीर, मन और शब्दों से अच्छे कर्म करने के महत्व पर जोर देता है और प्रेम, ईमानदारी और नकारात्मक भावनाओं से मुक्ति जैसे गुणों पर प्रकाश डालता है। इस जानकारी के आधार पर, प्रश्न का सबसे उपयक्त विकल्प 'प्रेमपूर्ण व्यवहार में क्या होना चाहिए' यह क्रोध सहित नकारात्मक भावनाओं से बचने और दुसरों के साथ सौहार्दपूर्ण संबंधों को बढ़ावा देने पर अनुच्छेद के जोर के अनुरूप है।

व्याख्या—गद्यांश में दी गई जानकारी के आधार पर प्रश्न का सबसे उपयुक्त विकल्प 'कविता में किसे त्यागने की बात कही गई है' जिसकी

- 103. विकल्प (2) उचित है। विकल्प है—सम्पूर्ण विश्व एक परिवार है।
- 104. विकल्प (2) उचित है। व्याख्या—गद्यांश के आधार पर प्रश्न "कौन सा कार्य करने से सम्मान मिलता है?" का सबसे उपयुक्त विकल्प है। अच्छे कर्म करने से।
- व्याख्या-दिए गए परिच्छेद के आधार पर, 'जगत' शब्द का प्रयोग संपूर्ण मानव अस्तित्व या संपूर्ण जगत समुदाय को संदर्भित करने के लिए विशेषण के रूप में किया जाता है। इसलिए, सही विकल्प है-विशेषण।
- व्याख्या-उस व्यक्ति के लिए सही विकल्प जिसने यह विचार प्रतिपादित किया कि बच्चे सामाजिक संपर्क के माध्यम से भाषा सीखते हैं-वायगोत्स्की।
- 107. विकल्प (2) उचित है। विकल्प है पूर्वभाषिक भाषण।
- व्याख्या-दिए गए विकल्पों में से, संरचित बातचीत को योजनाबद्ध बातचीत माना जाएगा।
- 109. विकल्प (3) उचित है। व्याख्या-वर्णित गतिविधि, जहां छात्र किसी पाठ के विभिन्न भागों को सुनते या पढ़ते हैं और फिर किसी कार्य को पूरा करने के लिए सूचनाओं

का आदान-प्रदान करते हैं, उसे आमतौर पर "जिग्सॉ रीडिंग" या "जिग्स गतिविधि" के रूप में जाना जाता है। इसलिए, सही विकल्प जिग्सॉ श्रुतलेख होगा।

110. विकल्प (1) उचित है।

व्याख्या—प्रदान की गई जानकारी के आधार पर. कक्षा सातवीं की छात्रा जिस भाषा विकार का अनुभव कर रही है, जहां उसका भाषण धाराप्रवाह नहीं है और उसे कक्षा में चर्चा किए गए शब्दों को समझने में कठिनाई होती हैए वह संभवत: डिस्फेसिया (जिसे वाचाघात भी कहा जाता है) है। डिस्फेसिया एक भाषा विकार है जो भाषा की समझ और उत्पादन में कठिनाई की विशेषता है। इसलिए, सही विकल्प होगा डिस्फोगिया। यह ध्यान देने योग्य है कि डिस्पैगिया एक अलग स्थिति है जो निगलने में कठिनाई को संदर्भित करती है।

यह अवस्था विद्यार्थियों को शब्दार्थ, शब्दों के व्याकरण, और भाषा के प्रयोग में कठिनाई और त्रुटियों का अनुभव कराती है।

111. विकल्प (1) उचित है।

व्याख्या-दिए गए संदर्भ के आधार पर, प्रत्येक सत्र के अंत में शिक्षक को अपने छात्रों के भाषा कौशल का परीक्षण करने में जिस प्रकार की <mark>सहा</mark>यता उपलब्ध होगी वह होगी छात्रों की भाषाई दक्षता का आकलन करने में। छात्रों के भाषा कौशल का आकलन करने में भाषा के विभिन्न <mark>पह</mark>लुओं<mark>, जैसे सुनना, बोलना, पढ़</mark>ना और लिखना में उनकी दक्षता का मूल्यांकन करना शामिल <mark>होगा। यह मूल्यांकन शिक्षक को</mark> छात्रों की भाषा क्षमताओं का आकलन करने और उनकी भाषा दक्षता के स्तर को निर्धारित करने में मदद करता है।

शिक्षा योजना और उपायों का निर्धारण करने में मदद करता है ताकि वह अपने विद्यार्थियों की भाषा कौशल को स्थायी रूप से सुधार सके।

112. विकल्प (2) उचित है।

व्याख्या-भाषा कक्षा में मूल्यांकन विभिन्न उद्देश्यों की पूर्ति करता है और शिक्षण-सीखने की प्रक्रिया के दौरान अलग-अलग समय पर आयोजित किया जा सकता है। आपके द्वारा प्रदान किए गए कथनों का विवरण यहां दिया गया है—

- यह जानने के लिए कि छात्रों को पाठ से संबंधित प्रश्नों के उत्तर याद हैं या नहीं—अकेले याद करने का आकलन करने से छात्रों की भाषा में समझ और दक्षता परी तरह से समझ में नहीं आ सकती है। हालाँकि छात्रों के ज्ञान प्रतिधारण का आकलन करना महत्वपूर्ण हैए लेकिन मूल्यांकन को उच्च-क्रम की सोच कौशल, भाषा नियमों के अनुप्रयोग और संचार क्षमताओं पर भी ध्यान केंद्रित करना चाहिए।
- शिक्षण-अधिगम प्रक्रिया के दौरान किया जाना चाहिए-शिक्षण-सीखने की प्रक्रिया के दौरान किए गए मूल्यांकन, जिन्हें अक्सर रचनात्मक मूल्यांकन कहा जाता है, छात्रों और शिक्षकों दोनों को तत्काल प्रतिक्रिया प्रदान करने के लिए मूल्यवान हैं। वे सुधार के क्षेत्रों की पहचान करने, निर्देशात्मक रणनीतियों को

of precise vocabulary ensures clarity in scientific communication and promotes conceptual understanding. Therefore, the desirable strategies for assessing learners meaningfully in science is (4) Importance should be given to precise vocabulary and definitions.

Language-I: Hindi

91. विकल्प (3) उचित है। व्याख्या—जैसा कि परिच्छेद में बताया गया है, भारत की बुराई का कारण 'गरीबों की स्थिति' है। अत: सबसे उपयुक्त विकल्प है।

92. विकल्प (4) उचित है।

व्याख्या—गद्यांश के अनुसार, यदि बच्चे शिक्षा तक नहीं पहुँच पाते हैं। तो सबसे उपयुक्त विकल्प है (4) शिक्षा स्वयं बच्चों तक पहँचनी चाहिए। परिच्छेद सुझाव देता है कि यदि गरीब बच्चे शिक्षा प्राप्त करने के लिए नहीं आ सकते हैं, तो शिक्षकों के रूप में सेवा करने के लिए समर्पित व्यक्तियों को संगठित करके और जगह-जगह, घर-घर जाकर, जनता के बीच शिक्षा का प्रसार करके उनके लिए शिक्षा लाई जानी चाहिए।

93. विकल्प (2) उचित है।

व्याख्या—यह परिच्छेद भारत में शिक्षकों के रूप में सेवा करने और जनता के बीच शिक्षा का प्रसार करने के लिए समर्पित, निस्वार्थ संन्यासियों (आध्यात्मिक साधकों) को संगठित करने के विचार पर चर्चा करता है। इससे पता चलता है कि यदि कुछ संन्यासियों को भौतिक विषयों के शिक्षकों के रूप में संगठित किया जा सकता है, तो वे एक स्थान से दूसरे स्थान, घर-घर जाकर उपदेश दे सकते हैं और शिक्षा प्रदान कर सकते हैं। इसलिए सन्यासियों को जो ज्ञान देने की बात की जा रही है वह हैं; (2) भौतिक विषयों का ज्ञान ।

- 94. विकल्प (4) उचित है। व्याख्या—परिच्छेद के अनुसार, समुदाय के लोगों तक स्वयं पहुँचकर उन्हें शिक्षित करने का कार्य करना चाहिए।
- 95. विकल्प (2) उचित है। व्याख्या—परिच्छेद के अनुसार, बच्चे पढ़ाई के बजाय जाकर अपने पिता की मदद करना पसंद करेंगे क्योंकि-वे जीविकोपार्जन करना पसंद करेंगे।
- 96. विकल्प (1) उचित है। व्याख्या—यह परिच्छेद उन संन्यासियों के गणों पर चर्चा करता है जो उपदेश देते हैं और संभावित रूप से भौतिक विषयों के शिक्षक बन जाते हैं। इस परिच्छेद में संन्यासियों के जिन गुणों की चर्चा की गई है वे इस प्रकार हैं—वफादार और निस्वार्थ।
- 97. विकल्प (3) उचित है। व्याख्या—सम् + न्यासी
- 98. विकल्प (4) उचित है। व्याख्या—धर्म + उपदेश
- 99. विकल्प (2) उचित है। व्याख्या-प्रत्येक

102. विकल्प (2) उचित है।

सब बुराई करते हैं। परिच्छेद में कहा गया है कि 'कर्म वह है जिससे मिले<mark>, जग में सदा सम्मान</mark>, जिसकी सब निंदा करें, उसे त्याग जानो।' इससे पता चलता है कि जिन व्यक्तियों की सभी ने निंदा की है, उन्हें ही कविता में परित्यक्त कहा गया है।

- व्याख्या-पूछे गए प्रश्न का सबसे उपयुक्त
- 105. विकल्प (2) उचित है।
- 106. विकल्प (2) उचित है।

व्याख्या—दी गई जानकारी के आधार पर, सात महीने की बच्ची का संचार पूर्वभाषिक भाषण के प्रारंभिक चरण में होगा। इसलिए, सबसे उपयुक्त

108. विकल्प (1) उचित है।

समायोजित करने और चल रहे निर्देश का मार्गदर्शन करने में मदद करते हैं। रचनात्मक मूल्यांकन प्रश्नोत्तरी, कक्षा चर्चा, समूह गतिविधियों और अनौपचारिक टिप्पणियों के रूप में हो सकता है।

- यह जानने के लिए कि शिक्षक पढ़ाने में कितना कुशल है—मूल्यांकन मुख्य रूप से केवल शिक्षक के कौशल का आकलन करने के बजाय छात्रों की प्रगति और सीखने का मूल्यांकन करने के उद्देश्य को पूरा करता है। हालाँकि, निर्देश की प्रभावशीलता का अनुमान अप्रत्यक्ष रूप से छात्रों के प्रदर्शन और विकास से लगाया जा सकता है। शिक्षक मूल्यांकन परिणामों का उपयोग अपने शिक्षण तरीकों पर विचार करनेए निर्देशात्मक दृष्टिकोण को संशोधित करने और जहां आवश्यक हो वहां अतिरिक्त सहायता प्रदान करने के लिए कर सकते हैं।
- पाठ समाप्ति के बाद यह करना चाहिए – किसी पाठ के पूरा होने के बाद किए गए मूल्यांकन, जिन्हें अक्सर योगात्मक मूल्यांकन कहा जाता हैए छात्रों के सीखने के परिणामों का व्यापक मूल्यांकन प्रदान करते हैं। ये आकलन यह निर्धारित करने में मदद करते हैं कि छात्रों ने पाठ के उद्देश्यों को किस हद तक हासिल किया है, और वे अक्सर परीक्षण, परियोजनाओं या प्रस्तुतियों का रूप लेते हैं। योगात्मक मूल्यांकन छात्रों के प्रदर्शन का सारांश प्रदान करता है और इसका उपयोग प्रेडिंग, उन्नति या भविष्य की अनुदेशात्मक योजना के बारे में निर्णय लेने के लिए किया जा सकता है।

संक्षेप में, भाषा कक्षा में मूल्यांकन में रचनात्मक और योगात्मक मूल्यांकन का संयोजन शामिल होना चाहिए जो छात्रों की समझ, अनुप्रयोग और संचार कौशल का मूल्यांकन करता है। समय पर प्रतिक्रिया प्रदान करने और चल रहे सुधार को सुविधाजनक बनाने के लिए उन्हें शिक्षण-सीखने की प्रक्रिया के दौरान संचालित किया जाना चाहिए। जबकि मूल्यांकन अप्रत्यक्ष रूप से शिक्षण की प्रभावशीलता को दर्शाते हैं, उनका प्राथमिक ध्यान छात्रों की प्रगति और सीखने के परिणामों का मूल्यांकन करने पर होना चाहिए।

113. विकल्प (3) उचित है।

व्याख्या — कोड मिश्रण और कोड स्विचिंग के बारे में सही कथन है — कोड मिक्सिंग तब होती है जब कोई एक भाषा से एक शब्द या वाक्यांश का उपयोग करता है और दूसरा शब्द या वाक्यांश दूसरी भाषा से बोला जाता है, जबकि कोड स्विचिंग तब होता है जब कोई विकल्प के रूप में दो या दो से अधिक भाषाओं का उपयोग करता है। कोड मिश्रण से तात्पर्य एक ही वार्तालाप या वाक्य में दो या दो से अधिक भाषाओं के राब्दों, वाक्यांशों या व्याकरणिक संरचनाओं के सम्मिश्रण से है। इसमें विभिन्न भाषाओं के तत्वों का परस्पर उपयोग शामिल है। दूसरी ओरए कोड स्विचिंग में बातचीत में दो या दो से अधिक भाषाओं के बीच स्विच करना शामिल होता है, जो अक्सर सामाजिकए सांस्कृतिक या प्रासंगिक कारकों से प्रभावित होता है। कोड स्विचिंग विभिन्न स्तरों पर हो सकती है, जिसमें शब्द या वाक्यांश स्तर, वाक्य स्तर, या यहां तक कि एक प्रवचन के भीतर भी शामिल है। कोड मिश्रण और कोड स्विचिंग पर्यायवाची नहीं हैं। वे विशिष्ट भाषाई घटनाओं का प्रतिनिधित्व करते हैं। वोड मिश्रण एक वार्तालाप के भीतर विभिन्न भाषाओं का एक साथ उपयोग है, जबकि कोड स्विचिंग में विकल्प के रूप में भाषाओं के बीच स्विच करना शामिल है। कोड मिश्रण और कोड स्विचिंग दोनों द्विभाषी या बहुभाषी व्यक्तियों के बीच देखे जाते हैं जिनके पास कई भाषाओं में दक्षता है।

114. विकल्प (2) उचित है।

व्याख्या—वह कथन जो पढ़ने और लिखने के कौशल के बीच संबंध को सबसे अच्छी तरह दर्शाता है वह है–(2) पढ़ना और लिखना कौशल एकीकृत/शामिल हैं।

पढ़ना और लिखना कौशल आपस में जुड़े हुए हैं और परस्पर सहायक हैं। एक कौशल में दक्षता विकसित करने से अक्सर दूसरे के विकास पर सकारात्मक प्रभाव पड़ता है। कुशल पाठकों को भाषा संरचनाए शब्दावली और समझ की बेहतर समझ होती है, जो उनकी लेखन क्षमताओं में सहायता कर सकती है। इसी तरह, कुशल लेखकों को वाक्य संरचना, व्याकरण और शब्दावली की गहरी समझ होती है, जो उनकी पढ़ने की समझ को बढ़ा सकती है।

पढ़ने और लिखने के कौशल में ध्वनि-विज्ञान, शब्दावली, व्याकरण और समझ जैसे सामान्य आधार होते हैं। जैसे-जैसे छात्र पढ़ने की गतिविधियों में संलग्न होते हैं, उन्हें विभिन्न लेखन शैलियों, भाषा पैटर्न और साहित्यिक उपकरणों से अवगत कराया जाता है, जो उनके लेखन को प्रेरित और सूचित कर सकते हैं। इसी तरह, जैसे-जैसे छात्र लिखने का अभ्यास करते हैं, वे अपने भाषा कौशल, शब्दावली उपयोग और समझने की क्षमताओं को परिष्कृत करते हैं, जिससे उनकी पढ़ने की समझ में वृद्धि हो सकती है।

यह ध्यान रखना महत्वपूर्ण है कि जहां पढ़ने और लिखने के कौशल एकीकृत हैं, वहीं उन्हें निर्देशात्मक संदर्भ और शिक्षार्थियों की जरूरतों के आधार पर अलग से विकसित और सिखाया भी जा सकता है। शिक्षक अक्सर ऐसी गतिविधियाँ और पाठ डिज़ाइन करते हैं जिनमें पढ़ना और लिखना दोनों शामिल होते हैं, क्योंकि ये कौशल एक-दूसरे के पूरक और सुदृढ़ होते हैं। हालॉकि, प्रत्येक कौशल को व्यक्तिगत रूप से लक्षित करने वाले विशिष्ट निर्देश और अभ्यास भी सुधार के विशिष्ट क्षेत्रों को संबोधित करने वा विशेष भाषा पहलुओं पर ध्यान केंद्रित करने के लिए फायदेमंद हो सकते हैं।

115. विकल्प (4) उचित है।

व्याख्या—दिए गए विकल्पों के आधार पर शिक्षक जिस कौशल का मूल्यांकन नहीं कर रहा है वह बोल रहा है। शिक्षक सुनने (सावधानीपूर्वक), लिखने, पढ़ने और सुनने के कौशल का मूल्यांकन कर रहा है, लेकिन बोलने के कौशल का नहीं। विद्यार्थियों के लेखन कौशल को मापा नहीं जा रहा है, जैसे कि उनकी विचारशक्ति, व्याकरण, और व्यक्तिगत अभिव्यक्ति कौशल का मापन किया जा सकता है।

116. विकल्प (3) उचित है।

व्याख्या-प्रक्रिया-आधारित लेखन दुष्टिकोण में सही चरण हैं— पूर्वलेखन-सम्पादन-संशोधन-लेखन-प्रकाशन। प्रक्रिया-आधारित लेखन दृष्टिकोण में, चरण आम तौर पर पूर्व-लेखन से शुरू होते हैं, जहां लेखक विचार उत्पन्न करता है, रूपरेखा तैयार करता है या अपने लेखन की योजना बनाता है। इसके बाद संपादन आता है, जहां लेखक स्पष्टता, सुसंगतता और व्याकरण में सुधार के लिए समीक्षा करता है और बदलाव करता है। संपादन के बाद, अगला चरण संशोधित करना है, जिसमें लेखन की सामग्री और संरचना को पुनर्गठित और परिष्कृत करना शामिल है। पुनरीक्षण चरण के बाद, लेखक वास्तविक लेखन चरण की ओर बढ़ता है, जहाँ वे पाठ का अंतिम संस्करण लिखते हैं। अंत में, प्रक्रिया प्रकाशन के <mark>साथ समाप्त होती है, ज</mark>हां लेखक अपना तैयार <mark>काम साझा करता है या जमा</mark> करता है।

इस प्रक्रिया में लेखनपूर्व में विचारों और आकलन को तैयार किया जाता है, संशोधन में सामग्री की गुणवत्ता, तारीख, और तकनीकी गलतियों का संशोधन किया जाता है, संपादन में सामग्री को संगठित किया जाता है, लेखन में आकलनों को वाक्यों में रूपांतरित किया जाता है, और प्रकाशन में सामग्री को उचित ढंग से प्रस्तुत किया जाता है।

117. विकल्प (2) उचित है।

व्याख्या—विशिष्ट तथ्यों को जानने के लिए को जाने वाली रीडिंग को आमतौर पर स्किमिंग रीडिंग कहा जाता है। स्किमिंग में पाठ की सामग्री का सामान्य ज्ञान प्राप्त करने और विशिष्ट जानकारी या मुख्य बिंदुओं की पहचान करने के लिए पाठ पर त्वरित नज़र डालना शामिल है। स्किमिंग का उपयोग अक्सर तब किया जाता है जब समय सीमित होता है या गहराई से समझने के लिए पढ़ने के बजाय विशिष्ट विवरण खोजते समय किया जाता है।

विस्तृत पठन से पाठ्यक्रम से संबंधित विशेष तथ्य, नकल और महत्वपूर्ण अंश, आंकड़े या तथ्यों की विशेषताएं, उदाहरण आदि का पता लगाया जा सकता है।

118. विकल्प (2) उचित है।

व्याख्या — कक्षा में सामाजिक भाषा को बढ़ावा देने के लिए, एक शिक्षक को छात्रों के लिए एक-दूसरे के साथ बातचीत करने के अवसर बनाने पर ध्यान केंद्रित करना चाहिए। इसलिए, विकल्प 'छात्रों को एक-दूसरे के साथ बातचीत करने का अवसर दें ' सही उत्तर है।

छात्रों को ऐसी गतिविधियों में शामिल करना जिनमें संचार और सहयोग की आवश्यकता होती है, जैसे समूह चर्चा, समूह परियोजनाएँ, भूमिका निभाना, वाद-विवाद या सहयोगात्मक समस्या-समाधान, सामाजिक भाषा के विकास को बढ़ावा दे सकते हैं। ये गतिविधियाँ छात्रों को वास्तविक जीवन की स्थितियों में भाषा का उपयोग करने का अभ्यास करने, सार्थक बातचीत में संलग्न होने, अपने विचार व्यक्त करने, दूसरों को सुनने, अर्थ पर बातचीत करने और सामाजिक कौशल विकसित करने की अनुमति देती हैं। यह संवादात्मक और संचार वातावरण उनकी भाषा दक्षता को बढ़ाता है और सामाजिक संदर्भों में प्रभावी संचार को बढावा देता है।

119. विकल्प (4) उचित है।

व्याख्या — प्रदान की गई जानकारी के आधार पर, यह स्पष्ट रूप से नहीं बताया गया है कि शिक्षक किस प्रकार की पढ़ाई को बढ़ावा देना चाहता है। हालाँकि, हम दिए गए विकल्पों के आधार पर एक शिक्षित अनुमान लगा सकते हैं।

तेजी से पढ़ना (विकल्प 1) विवरण में गए बिना पाठ का एक सामान्य विचार प्राप्त करने के लिए तेजी से पढ़ने पर केंद्रित है। विस्तृत पठन (विकल्प 2) में पाठ की बारीकियों और पेचीदगियों पर पूरा ध्यान देते हुए सावधानीपूर्वक और ध्यानपूर्वक पढ़ना शामिल है। क्रिटिकल रीडिंग (विकल्प 3) में पाठ की ताकत, कमजोरियों और अंतर्निहित संदेशों पर विचार करते हुए उसका विश्लेषण और मूल्यांकन करना शामिल है। सहभागी पठन (विकल्प 4) आम तौर पर एक अधिक इंटरैक्टिव पढ़ने के अनुभव को संदर्भित करता है जहां पाठक सक्रिय रूप से पाठ के साथ जुडूत हैं, जैसे कि चर्चा, एनोटेशन या

रचनात्मक प्रतिक्रियाओं के माध्यम से। यह देखते हुए कि छात्रों को एक कहानी की किताब चुनने और उसे व्यक्तिगत रूप से पढ़ने के लिए कहा जाता है, यह संभावना है कि शिक्षक विस्तृत पढ़ने (विकल्प 2) और संभवत: आलोचनात्मक पढ़ने (विकल्प 3) के संयोजन को बढ़ावा देना चाहते हैं। ध्यान कहानी को समझने, उसके तत्वों को समझने और संभावित रूप से उसके विषयों या संदेशों का विश्लेषण करने पर होगा। यदि छात्रों से बाद में अपने साथियों के साथ पुस्तक के बारे में चर्चा करने या अपने विचार साझा करने की अपेक्षा की जाती है, तो सहभागी पढ़ने (विकल्प 4) को भी प्रोत्साहित किया जा सकता है।

120. विकल्प (1) उचित है।

व्याख्या—विभिन्न गतिविधियों के माध्यम से वर्तनी और विराम चिह्नकौशल में सुधार से छात्रों को कई लाभ हो सकते हैं—

- प्रवाह और स्पष्टता—वर्तनी और विराम चिह्न कौशल में सुधार करके, छात्र अपने लेखन के प्रवाह और स्पष्टता को बढ़ा सकते हैं। सही वर्तनी और उचित विराम चिह्न अर्थ को प्रभावी ढंग से व्यक्त करने में मदद करते हैं, जिससे उनके लिखित कार्य को समझना और उसका पालन करना आसान हो जाता है।
- सुनने का कौशल—हालांकि इसका सीधे तौर पर एक विकल्प के रूप में उल्लेख नहीं किया गया है, लेकिन वर्तनी और विराम चिह्न गतिविधियों में संलग्न होना अप्रत्यक्ष रूप से सुनने के कौशल को बेहतर बनाने में योगदान दे सकता है। इन गतिविधियों के दौरान, छात्रों को निर्देशों, ध्वन्यात्मक ध्वनियों या वर्तनी पैटर्न को ध्यान से सुनने की आवश्यकता हो सकती है, जिससे बोले गए शब्दों को देखने और समझने की उनकी क्षमता बढ सकती है।

- सटीकता—विकल्प 3 में उल्लेख है कि सटीकता में सुधार किया जाएगा, जो वर्तनी और विराम चिह्न कौशल का एक प्रमुख पहलू है। वर्तनी और विराम चिह्न नियमों का अभ्यास करके, छात्र अपने लिखित संचार में अधिक सटीकता विकसित कर सकते हैं। इसमें सही वर्तनी, उचित विराम चिह्न
- सटीक लिखित कार्य होता है। **शब्दावली विकास** हालांकि स्पष्ट रूप से उल्लेख नहीं किया गया है, वर्तनी गतिविधियों में संलग्न होने से अक्सर नए शब्द और उनकी सही वर्तनी सीखना शामिल होता है। नई शब्दावली का यह प्रदर्शन छात्रों के शब्द ज्ञान को बढ़ाने और उनकी समग्र शब्दावली को बढ़ाने में योगदान दे सकता है।

और उचित पंजीकरण का उपयोग शामिल है.

जिसके परिणामस्वरूप अधिक परिष्कत और

संक्षेप में, वर्तनी और विराम चिह्न कौशल पर ध्यान केंद्रित करके, छात्र अपने लेखन के प्रवाह और स्पष्टता में सुधार कर सकते हैं, अपने सुनने के कौशल को बढ़ा सकते हैं, लिखित कार्य में सटीकता बढ़ा सकते हैं और संभावित रूप से अपनी शब्दावली विकसित कर सकते हैं।

Language: English

121. Option (1) is correct. Explanation: The narrator was sorry because his house had caught fire.

122. Option (2) is correct. Explanation: From the line' My entire, worldly worth was swallowed up, and I resigned myself thenceforth to despair' suggests that the author's possessions were completely burnt out and he had nothing left or he was reduced to poverty. So statement (b) is true.

The narrator was not keen to find out about the cause of the fire as he does not mention it in the paragraph. So statement (a) is false.

123. Option (4) is correct.

Explanation: The passage mentions a compartment wall that stood about the middle of the house and against which the head of the narrator's bed had rested. This wall is described as being the only exception to the walls that had fallen in due to the fire, implying that it divided the house into two parts.

124. Option (3) is correct.

Explanation: The passage does not provide any information about the sleeping position of the narrator or whether they used to sleep with their head towards the wall. Therefore, statement (3) cannot be considered true based on the given information.

125. Option (2) is correct. Explanation: The passage mentions that a dense crowd had collected around the wall that had survived the fire, and many people were examining a particular portion of it with great attention. This implies that people came to visit the ruins and showed curiosity about the fire and its cause. Therefore, statement (b) is correct.

However, the passage does not explicitly mention whether people came to console the narrator. Therefore, statement (a) cannot be determined as definitively true based on the given information.

126. Option (4) is correct.

Explanation: The passage mentions that a dense crowd had collected around the wall, and they were examining a particular portion of it with great attention. The expressions used by the crowd, such as "strange" and "singular," excited the curiosity of the narrator. This indicates that the people were shocked at the damage caused by the fire (statement a) and the narrator felt curious at the excitement of the people (statement b).

However, the passage does not mention that a cat was glaring at the people from the wall. Therefore, statement c cannot be determined as definitively true based on the given information.

127. Option (1) is correct.

Explanation: The word 'Exception means something or someone that is not included in the group or that does not behave in the expected way.

Here, Out of the many walls in the house, only one wall has not fallen in the fire and so it was an 'oddity' or exception.

128. Option (3) is correct.

Explanation: In the given passage, "On the day succeeding the fire" refers to the day that came after the fire incident. The opposite of "succeeding" would be "preceding," which means the day that came before the fire incident.

129. Option (2) is correct.

Explanation: In the sentence, "The plastering had here, in great measure, resisted the action of the fire," "plastering" is used as a noun to refer to the material or process of applying plaster to the wall.

130. Option (2) is correct.

Explanation: The poem raises concerns about the suffering and misery of impoverished children in a rich and fruitful land. It questions the morality of such a situation and criticizes the conditions that lead to poverty and deprivation. This suggests that the poem serves as a voice of protest against social inequality and injustice.

131. Option (1) is correct.

Explanation: The poem highlights the ironic contrast between a rich and fruitful land and the miserable condition of its children. It questions

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the existence of poverty and suffering in a land that should ideally be prosperous. The speaker finds it ironic that in a country with abundant resources, there are still so many impoverished children. This irony underscores the social injustice and inequality portrayed in the poem.

132. Option (2) is correct.

Explanation: A metaphor is a figure of speech that compares two different things by stating that one thing is another. In this case, the speaker is metaphorically describing the difficult and challenging paths or journeys of the people in the land of poverty by comparing them to being filled with thorns. The metaphor emphasizes the hardships and obstacles they face in their lives.

133. Option (4) is correct.

Explanation: The line suggests that in the land of poverty described in the poem, the conditions are bleak and barren. It metaphorically represents a state of deprivation, where there is a lack of growth, abundance, and prosperity. It emphasizes the harshness and desolation of the environment, symbolizing the absence of hope and improvement. In a land of abundant, if children are dying of hunger, then it must be due to uncaring and callous attitude of the people.

134. Option (1) is correct.

Explanation: The word "usurous" implies that the hand feeding the babes is characterized by being cold and exploitative, suggesting a greedy or selfish nature. It conveys the idea that those responsible for providing for the children are doing so in a cruel and unjust manner, possibly taking advantage of their vulnerability.

135. Option (3) is correct.

Explanation: The lines "Babes reduced to misery" and "And so many children poor" indicate that the children in the poem are experiencing hardship and poverty. The overall tone of the poem suggests a contrast between the rich and fruitful land and the plight of the children, emphasizing their suffering and the harsh conditions they face.

136. Option (2) is correct.

Explanation: Lev Vygotsky, a renowned developmental psychologist, emphasized the role of social interaction and cultural context in the development of language and other cognitive processes. He proposed the sociocultural theory, which posits that language and cognitive development are intertwined and shaped by social interactions, cultural practices, and collaborative learning experiences. According to Vygotsky, children learn language through interactions with more knowledgeable individuals,

such as parents, caregivers, and peers, who provide guidance, scaffolding, and opportunities for language learning and development.

137. Option (4) is correct.

Explanation: Babbling refers to the stage in language development where infants produce repetitive sequences of consonant and vowel sounds, such as "bababa" or "dadada." It is an important milestone in language acquisition and serves as a precursor to linguistic speech. During the babbling stage, infants experiment with different combinations of sounds and explore the possibilities of language production. Although babbling does not have specific meanings attached to it, it is considered an early form of communication through vocalizations.

138. Option (1) is correct.

Explanation: When talk is considered as well-organized, it is often described as (1) structured. A structured talk follows a logical flow, has a clear organization, and is cohesive in its presentation. It typically includes an introduction, body, and conclusion, with ideas and information presented in a coherent and organized manner. Structured talks help the speaker effectively convey their message and ensure that listeners can follow and understand the content being presented.

139. Option (3) is correct.

Explanation: The activity described, where students hear or read different parts of a text and then exchange information with others to complete a task, is known as (3) Jigsaw dictation. In a jigsaw dictation, students are divided into groups, and each group is given a specific part of the text. They work together to understand and remember the information in their assigned part. Then, students from different groups come together to share and exchange the information they have learned, allowing each group to complete the task by combining the information from all parts of the text. This collaborative activity promotes communication, cooperation, and comprehension skills among students.

140. Option (1) is correct.

Explanation: The language disorder described, where a student has difficulty in retelling a story, lacks fluency in speech, and struggles to understand the meaning of words discussed in class, is referred to as (1) Dysphasia. Dysphasia is a language disorder characterized by difficulties in language production, comprehension, and expression. It

can affect various aspects of language, including speaking, listening, reading, and writing. In this case, the student's difficulties with retelling a story, lack of fluency in speech, and difficulty in understanding words indicate possible dysphasia.

141. Option (1) is correct.

Explanation: The teacher testing the students in language skills at the end of each semester will primarily help her to (1) assess the students' language proficiency. By conducting language assessments, the teacher can evaluate the students' abilities and determine their level of language proficiency. This assessment can provide valuable information about the students' strengths, weaknesses, and overall progress in the language. It helps the teacher understand the areas where students may need additional support or improvement and guides instructional planning for future language learning. While, measuring aptitude, assigning scores, and defining curricular objectives may also be influenced by the assessment results, the primary purpose is to assess and evaluate the students' language proficiency.

142. Option (2) is correct.

Explanation: Assessment in the language class is an ongoing process that should be integrated throughout the teaching and learning activities. It involves various forms of assessment such as formative assessments, which occur during the instructional process, and summative assessments, which are conducted at the end of a unit or course.

Assessment during the teachinglearning process helps the teacher monitor students' progress, identify areas of strength and weakness, provide timely feedback, and adjust instruction accordingly. It allows the teacher to gauge students' understanding, track their language development, and make informed decisions about instructional strategies and interventions.

Assessment is not solely about checking if students have memorized answers or evaluating the teacher's efficiency. It is an essential component of the teaching and learning cycle that promotes student growth and guides instructional planning.

143. Option (3) is correct.

Explanation: Code mixing is when someone uses one word or phrase from one language to another language while code switching is when someone alternates two or more languages in the same conversation.

Code mixing refers to the practice of incorporating words or phrases from one language into another language

while speaking or writing. It involves blending languages within a single utterance or sentence. For example, a person might say, "I need to comprar some groceries" (mixing English and Spanish by using the word "comprar" for "buy").

Code switching, on the other hand, refers to the act of alternating between two or more languages within a conversation or interaction. It involves switching between languages at specific points, often influenced by various social, cultural, or linguistic factors. For example, a person might say, "I'll meet you at the restaurant para comer algo" (switching from English to Spanish for the phrase "para comer algo" which means "to eat something").

Code mixing and code switching are not synonymous. They involve different linguistic phenomena, although they both relate to the use of multiple languages in communication.

Code mixing and code switching can be observed in bilingual or multilingual individuals, as they have the ability to use and switch between different languages. They are not limited to monolingual speakers.

144. Option (2) is correct.

Explanation: Reading and writing skills are closely connected and intertwined. They are considered complementary language skills that support and reinforce each other. Developing proficiency in one skill

often contributes to the development of the other.

Reading provides the foundation for writing as it helps learners develop vocabulary, comprehension, and language structures. Through reading, learners are exposed to different writing styles, genres, and models of effective writing, which can inform and improve their own writing abilities.

Similarly, writing enhances reading skills by promoting deeper engagement with the text and encouraging critical thinking. Writing requires understanding and applying the rules of grammar, syntax, and vocabulary, which can enhance reading comprehension and interpretation.

Therefore, it is generally recognized that reading and writing skills should be taught in an integrated manner, allowing learners to practice and develop both skills simultaneously. By engaging in activities that involve reading and writing, such as writing summaries of texts, responding to reading prompts, or analyzing written works, learners can strengthen their overall language proficiency.

145. Option (4) is correct.

Explanation: Based on the given options, the skill that is NOT being assessed by the teacher is (4) Hearing.

146. Option (1) is correct.

Explanation: The correct sequence of steps in the process writing approach

is— Pre write - Draft - Revise - Edit -Publish.

147. Option (1) is correct. Explanation: Reading to find specific facts is referred to as (1) Scanning.

148. Option (2) is correct.

Explanation: To promote social language in class, a teacher would (2) give the learners the opportunity to interact with peers. This encourages communication and interaction among the students, fostering the development of social language skills.

149. Option (2) is correct.

Explanation: The teacher's action of asking the learners to choose story books from the classroom library and read individually promotes (2) Extensive reading. Extensive reading involves reading for pleasure and general understanding, often with a focus on reading a large quantity of materials to build reading fluency and develop a broader vocabulary.

150. Option (4) is correct.

Explanation: Working on spellings often involves learning new words, their spellings, and their meanings. By engaging in spelling activities, students can expand their vocabulary and develop a deeper understanding of word usage. This expanded vocabulary can enhance their reading, writing, and overall language skills.