Time: 2 hours 30 mins. | **Total Marks: 150**

Child Development and Pedagogy

Directions: *Answer the following questions by selecting the correct/most appropriate option.*

1. A conductive classroom environment for learning in middle classes centres around ....
   (1) co-operative learning
   (2) fear of punishment and embarrassment
   (3) competitive ethos
   (4) conditioning and reinforcement

2. How can a teacher help Aman who is struggling with complex problems develop problem-solving skills ?
   (1) Tell him to give up on the problem
   (2) Encourage him to brainstorm and generate ideas
   (3) Discourage him from experimenting and taking risk
   (4) Provide him with the answers

3. The underlying principle of 'understanding-based' teaching is the belief that :
   (1) learners are passive recipients and the teacher has the 'right' knowledge.
   (2) learners' abilities and needs are diverse which cannnot be catered to without focusing on standard instructions.
   (3) learners can construct knowledge when provided with a facilitative environment to do so.
   (4) learners know little and teaching involves transmission of facts to students.

4. Students struggling with 'dyslexia' can be taught to read :
   (1) by providing higher grade level reading texts.
   (2) by encouraging them to study in multiple distractions.
   (3) through use of strict punishment to ensure corrective reading.
   (4) through systemic phonological training.

5. Sibling relationships :
   (1) are similar to relationships with parents and peers and play an important role in socialization throughout childhood.
   (2) are different than relationships with parents and peers and play an important role in socialization throughout childhood.
   (3) play an important role only during early childhood.
   (4) do not have much role in socialization.

6. Read the following statements and choose the correct option :
   Assertion (A) : Considerable variations exist in developmental rates among children.
   Reason (R) : Developmental differences are an inevitable result to complex interaction of genetic and experiential variations.
   (1) Both (A) and (R) are true, but (R) is *not* the correct explanation of (A).
   (2) (A) is true, but (R) is false.
   (3) Both (A) and (R) are false.
   (4) Both (A) and (R) are true and (R) is the correct explanation of (A).

7. Which principle of development is illustrated in the following statement ?
   "Children who are deprived of a conducive environment for learning language in their early years have some difficulty in picking language later in life."
   (1) Language and cognition are complexly interrelated.
   (2) Development of language is totally dependent on genetics.
   (3) Development is disorderly and unpredictable.
   (4) There is sensitive period of language development.

8. Which of the following questions promotes critical and creative thinking in children?
   (1) Where does water come from in our city?
   (2) Which can be the best way to save water and why?
   (3) How many states and how many capitals are there in your country ?
   (4) What is the name of your country and its geographical location on the map ?

9. What does inclusive education entail ?
   (1) Segregation and categorisation of students on the basis of their abilities.
   (2) Standard curriculum for all learners.
   (3) Provisioning of only vocational education to learners with special needs.
   (4) Flexibility in the curriculum as a result of recognition of individual differences.

10. What is the role of evidence in critical thinking ?
    (1) Evidence should be accepted without analysis.
    (2) Evidence should be evaluated in a logical and systematic way.
    (3) Evidence is irrelevant to critical thinking.
    (4) Evidence should be ignored in favour of personal opinion.

11. Read the following statements and choose the correction option :
    Assertion (A) : Jean Piaget and Lev Vygotsky differ in their perspective on the influence of language on cognitive development in children.
    Reason (R) : In discovery learning, teacher provides opportunities and students derive information for themselves.
    (1) Both (A) and (R) are true, but (R) is *not* the correct explanation of (A).
    (2) (A) is true, but (R) is false.
    (3) Both (A) and (R) are false.
    (4) Both (A) and (R) are true and (R) is the correct explanation of (A).

12. In a progressive classroom, the students :
    A. do not ask many questions.
    B. ask questions to the teacher.
    C. ask questions to each other.
    D. ask themselves questions.

    Choose the correct option :
    (1) B and C   (2) B and D
    (3) B, C and D   (4) A

13. Expectations associated with being male or female are referred to as...............and these are learned............... .
    (1) gender constancy; initially during adolescence
    (2) gender roles; throughout childhood and into adulthood.
    (3) gender stereotypes; only during middle childhood.
    (4) gender bias; mainly during early childhood.

14. Which of the following views about intelligence supports the respectful consideration of diversity among learners ?
    (1) Intelligence is not influenced by genetic factors.
    (2) Intelligence is not influenced by environmental factors.
    (3) IQ tests are the only measure of intelligence.
    (4) Intelligence is multidimensional and can change over time.

15. Who among the following critiqued the concept of 'general' intelligence and proposed an alternative theory of intelligence ?
    (1) Howard Gardner   (2) Jean Piaget
    (3) Lev Vygotsky   (4) Charles Spearman

16. Lawrence Kohlberg's theory has been critiqued by Carol Gilligan for :
    (1) not applying quantitative methods of analysis.
    (2) ignoring gender differences in moral reasoning.
    (3) presenting a stage-theory of moral development.
    (4) collecting data by means of real-life situations.

17. General principles of learning suggest that students learn better if a teacher :
    (1) first discusses what is not known to the student and then comes to what the student already knows.
    (2) first introduces the concept in its symbolic from and then moves to its physical form.

(3) first introduces the concept overall and then moves on the intricacies of it.
(4) first discusses the concepts in terms of logic and reason and then grants opportunity to verify the ideas.

18. A teacher wants to help her students develop metacognitive skills. Which of the following strategies would be most effective ?
    (1) Encouraging students to reflect on their own learning and evaluate their progress.
    (2) Providing frequent grades and feedback to motivate students.
    (3) Assigning texts to students to memorize and encouraging them to repeat information from the textbook.
    (4) Providing students with detailed and prescriptive instructions for all learning tasks.

19. Read the following statements and choose the correct option :
    Assertion (A) : Teachers should ask students to identify their own examples and non-examples of the concept for strengthening the concept.
    Reason (R) : Thinking of examples leads to strengthening of the concept while non-examples tend to confuse the students.
    (1) Both (A) and (R) are true, but (R) is *not* the correct explanation of (A).
    (2) (A) is true, but (R) is false.
    (3) Both (A) and (R) are false.
    (4) Both (A) and (R) are true and (R) is the correct explanation of (A).

20. Read the following statements and choose the correction option :
    Assertion (A) : Teachers should work hard to break down students' stereotypes of particulars ethnic groups.
    Reason (R) : A key educational objective is to enable students to engage in critical self-reflection.
    (1) Both (A) and (R) are true, but (R) is *not* the correct explanation of (A).
    (2) (A) is true, but (R) is false.
    (3) Both (A) and (R) are false.
    (4) Both (A) and (R) are true and (R) is the correct explanation of (A).

21. What is the different between mastery goals and performance goals ?
    (1) Mastery goals are focused on improving one's own skills and understanding of a task, while performance goals are focused on achieving a high grade or receiving external rewards.
    (2) Mastery goals are focused on avoiding failure, while performance goals are focused on gaining approval and recognition from others.
    (3) Mastery goals are focused on gaining approval from others, while performance goals are focused on avoiding failure.
    (4) Mastery goals are focused on achieving a certain level of performance for competing with others, while performance goals are focused on improving one's own skills and understanding of a task.

22. Which of the following is an example of intrinsic motivation ?
    (1) Playing a musical instrument for personal enjoyment.
    (2) Completing the project to impress the teacher.

(3) Studying to avoid being scolded.

(4) Participating in a competition for the prize money.

23. According to Piaget, the four qualitatively different stages:

(1) illustrate that children's minds are miniature adult minds.

(2) vary vastly across the various cultures in the world.

(3) are dependent upon the genetic codes of the children.

(4) represent universal patterns of development of children.

24. Lev Vygotsky believed that development:

(1) is an unfolding of genetic programming.

(2) is discontinuous in nature.

(3) results directly from maturation.

(4) results directly from social interaction.

25. Which of the following is a limitation of Piaget's theory of cognitive development?

(1) It does not account for individual differences in cognitive development.

(2) It overemphasizes the role of language in cognitive development.

(3) It does not account for the role of biological factors in cognitive development.

(4) It does not account for the influence of culture and social factors on cognitive development.

26. Read the following statements and choose the correct option :

Assertion (A) : Every year Lata, a Class VII teacher invites a female maths professor and a male nurse to her class to discuss careers in these fields.

Reason (R) : Gender differences are innate and not acquired through society.

(1) Both (A) and (R) are true, but (R) is *not* the correct explanation of (A).

(2) (A) is true, but (R) is false.

(3) Both (A) and (R) are false.

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

27. Which of the following statements is correct in the context of hearing impairment ?

(1) All children with hearing impairment need to use 'sign language' to communicate.

(2) Hearing impairment can affect a child's ability to communicate effectively.

(3) Hearing impairment of a child can be reliably tested by making loud noises near the child.

(4) Hearing impairment is always due to a physical problem with the ear.

28. Which of the following set correctly mentions the characteristics on which students who are gifted typically differ from other students in the class ?

A. Advanced depth of understanding

B. Fast pace of learning

C. Higher dependence on others for understanding

D. Rapid physical development

Choose the correct option :

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

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

29. In the context of inclusion, curriculum learning expectations are the same in .... , while in .... , they are different.

(1) modification; accommodation

(2) enrichment; acceleration

(3) acceleration; enrichment

(4) accommodation; modification

30. According to constructivist theorists, which of the following statements would not be correct ?

(1) Learners construct knowledge in their social and cultural context.

(2) Knowledge is subjective.

(3) Learners need to be extrinsically motivated to ensure effective learning.

(4) Knowledge is pluralistic and multiple.

Mathematics and Science

31. The statement "1 less then or 1 more than a multiple of 6 are prime number" is an example of :

(1) Theorem   **(2)** Generalisation

(3) Conjecture   **(4)** Axiom

32. A mathematics teacher posed the following problems to her students :

A. Simrat pays ₹ 60,000 as rent for three months. How much will she have to pay for a whole year if the rent per month remains same ?

B. Cost of three dozen bananas is ₹ 45. Calculate the number of bananas that can be purchased of ₹ 12.50.

C. Joey and Jenny are going to school. Joey started walking before Jenny. When Joey was at the third block, Jenny was at the first block. If both are walking with the same speed, then where would Jenny be if Joey is at the ninth block ?

Which of the following is correct with respect to the above three questions ?

(1) B and C are daily life problems based on unitary method.

(2) Only A is based on unitary method.

(3) A and C are daily life problems based on unitary method.

(4) A and B are daily life problems based on unitary method.

33. A teacher in her class discusses various examples form daily life situations like a railway line crossing several other lines, a road crossing two or more roads, alphabets like 'H', 'Z', etc.

Which of the following concept(s) can be introduced through these examples ?

A. Line segment

B. Transversal

C. Parallel lines

D. Right angles

Choose the correct option :

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

(3) A and D   **(4)** Only B

34. Which among the following is the most appropriate way to teach mathematics ?

(1) Find the low performers and make them sit in the front row of the class.

(2) Find the gaps in learning and address them only.

(3) Teach every student with the same approach.

(4) Motivate the learners to develop their existing capabilities.

35. Which of the following is true for Continuous and Comprehensive Evaluation (CCE) ?
    (1) For CCE, teachers feel that each one of them has to give some home assignment every day to assess children's learning.
    (2) In CCE, assessment process includes assessment of previous knowledge, understanding level process.
    (3) CCE is all about converting marks into grades.
    (4) In CCE, there is more testing and less teaching.

36. Which of the following is/are essential features of a concept map in mathematics ?
    A. It represents a conceptual analysis of a concept using contributory sub-concepts.
    B. They are directional, with arrows showing which concepts are prerequisite for which others.
    C. They cannot be used for diagnostic purposes to identify difficulties in learning a particular concept.
    D. They cannot be used frequently as they are very time consuming.
    Choose the correct option :
    (1) Only C   (2) B and D
    (3) C and D   (4) A and B

37. Which of the following is not true about nature of mathematics ?
    (1) Primary concepts in mathematics are abstract in nature.
    (2) Mathematics at school level requires special aptitude in learners.
    (3) Mathematics is based on deductive reasoning.
    (4) Mathematics is much more abstract and hierarchic than most of the other subjects which children learn at the same age.

38. Which of the following statements are appropriate regarding "Argumentation" in a mathematics classroom ?
    A. It can be understood as a line of reasoning that intends to show or explain why a mathematical result is true.
    B. It is always helpful in mathematics in the same manner as in other empirical disciplines.
    C. It can also be a part of the heuristic approach in mathematics education.
    D. It is less useful for elementary grade students as its assessment will be difficult.
    Choose the correct option :
    (1) B and C   (2) A and C
    (3) A and B   (4) A and D

39. A conjecture in mathematics is :
    (1) a proposition or conclusion that has been proved.
    (2) not important at all as it does not help in developing mathematical understanding.
    (3) important for students of secondary level only.
    (4) a proposition or conclusion that is assumed to be true on a tentative basis without proof.

40. Which of the following statements is not correct with regard to a mathematics textbook ?
    (1) A mathematics textbook should have solved examples only.
    (2) Example in a mathematics textbook should be related to daily life of the students.
    (3) A textbook of mathematics should not be very thick or heavy.
    (4) A mathematics textbook should have varied exercise to give practice to students.

41. If $x = \sqrt{198} \times \sqrt{550}$ and $y = \sqrt[3]{99} \times \sqrt[3]{363}$, then $\frac{1}{x} + \frac{1}{y}$ is equal to :
    (1) $0.0\bar{3}$ (2) $0.\overline{01}$
    (3) $0.\overline{33}$ (4) $0.\bar{1}$

42. If $p = (12.34 \times 10^{10}) - (5.67 \times 10^9)$, then p is expressed in standard form as :
    (1) 1.1773×10^{10} (2) 1.1773×10^{11}
    (3) 1.773×10^{11} (4) 1.773×10^{10}

43. If $313632 = p^2 \times q^5 = r^4$, where p, q and r are prime numbers, then what is the value of $(p + q - 2r)$?
    (1) 7   (2) 8
    (3) 9   (4) 6

44. By which number should $\left(-\frac{1}{4}\right)^{-1}$ be multiplied so that the product is the reciprocal of $\left(-\frac{7}{4}\right)^{-1}$?
    (1) $\frac{16}{7}$ (2) $\frac{7}{16}$
    (3) $-\frac{16}{7}$ (4) $-\frac{7}{16}$

45. P is a point on line AB and PQ is a ray such that $\angle$ QPA = 7x and $\angle$ QPB = 5x. Then, the value of $(8x - 10°)$ is :
    (1) 110°   (2) 118°
    (3) 140°   (4) 102°

46. S is a point on side PQ of a triangle PQR such that RS = PS = QS. If $\angle$ QPR = 15°, then the value of $(2 \angle$ PQR $- \angle$ PRQ) is :
    (1) 60°   (2) 50°
    (3) 45°   (4) 75°

47. When a shopkeeper sells item A for ₹ 384, then there is a loss of 20% and when he sells item B for ₹ 400, then there is profit of 25%. What is the profit/loss percent, if he sells both items for a total of ₹ 852 ?
    (1) Loss, 5%   (2) Profit, 6.5%
    (3) Loss, 7%   (4) Profit, 7.5%

48. A sum of ₹ 12,000 amounts to ₹ 15,972 at a certain rate percent per annum in $1\frac{1}{2}$ years, when the interest is compounded half-yearly. What will be the amount of the same sum in same time and with the same rate, if interest is compounded annually ?
    (1) ₹ 15,420   (2) ₹ 15,480
    (3) ₹ 15,950   (4) ₹ 14,520

49. If $5x^2 - 8y - 20x + 2xy = (x + a)(bx + 2y)$, then the value of $(a - b)$ is :
    (1) – 1   (2) 9
    (3) – 9   (4) 1

50. If A = $x^2 (1 - 3y^2)$, B = $x (xy^2 - 2x)$ and
C = $3y (y - 4x^2y)$, then
A + B − C = $px^2 + qx^2y^2 + ry^2$
What is the value of $(5p + q - r)$?
   (1) 10   **(2)** 12
   (3) 18   **(4)** 8

51. Which of the following are divisible by 2, 3 and 11 ?
   (1) 8448   **(2)** 9812
   (3) 9126   **(4)** 9636

   Choose the correct option :
   (1) B and D   **(2)** A and B
   (3) A and D   **(4)** A and C

52. The solution of the equation $\dfrac{(x+1)-(2x+4)}{3-5x} = \dfrac{1}{23}$ is
   also the solution of the equation :
   (1) $3 (2x + 3) = 2 (x + 3)$
   (2) $5 (2x + 1) = 3 (x + 1)$
   (3) $3 (2x + 3) = 5 (x + 1)$
   (4) $2 (2x - 3) = 3 (x + 1)$

53. Marks obtained by Sunita in her pre-board examination are as follows :

Subject	Marks
English	72
Hindi	84
Mathematics	96
Science	80
Social Science	68

   If a pie chart is constructed for the above data, then what will be the angle of the sector representing marks obtained by Sunita in Mathematics ?
   (1) 72°   **(2)** 75.6°
   (3) 68.4°   **(4)** 64.8°

54. The volume of a right circular cylinder of length 1.2 metres is 4620 cm³. What is the curved surface area (in cm²) of the cylinder ? $\left(\text{Take } \pi = \dfrac{22}{7}\right)$
   (1) 2200   **(2)** 2640
   (3) 2860   **(4)** 1980

55. If F, V and E are respectively the number of faces, vertices and edges of a triangular prism, then which of the following statements is true ?
   (1) $2F + 3V - 2E = 10$ **(2)** $4F + 2V - 3E = 6$
   (3) $2F + 4V - 3E = 8$ **(4)** $3F + 2V - 2E = 11$

56. What is the mean of the mode, median and range of the data given below ?
   17, 8, 11, 13, 9, 14, 10, 11, 16, 23, 15, 7
   (1) 12.5   **(2)** 13
   (3) 13.5   **(4)** 12

57. The cost of painting the surface of a solid cuboid of dimensions 40 cm × 36 cm × x cm at ₹ 20 per 100 cm² is ₹ 1,032. What is the value of x ?
   (1) 15   **(2)** 20
   (3) 24   **(4)** 12

58. The area of a rectangle whose sides are 176 cm and 56 cm is equal to the area of a circle. What is the circumference (in cm) of the circle ? $\left(\text{Take } \pi = \dfrac{22}{7}\right)$
   (1) 352   **(2)** 396
   (3) 440   **(4)** 308

59. ABCD is a rhombus in which $\angle$ ADB = 25°. Then, the value of (2 $\angle$ BAD − $\angle$ ABC) is :
   (1) 240°   **(2)** 230°
   (3) 210°   **(4)** 260°

60. PQRS is a quadrilateral in which PQ = PS and RQ = RS. Which of the following statements is true about this quadrilateral ?
   (1) Its diagonals are perpendicular to each other.
   (2) Its diagonals are equal.
   (3) Each diagonal bisects the angle at each vertex.
   (4) Its diagonals bisect each other.

61. Identify the incorrect statement :
   (1) Clayey soil is more fertile as compared to loamy soil.
   (2) Clayey soil is better aerated than loamy soil.
   (3) Water retention capacity of clayey soil is better than that of loamy soil.
   (4) The particle size of clayey soil is much smaller than that of loamy soil.

62. Which of the following substances are present on the rubbing surface of a matchbox ?
   (1) White phosphorus and glass powder
   (2) Glass powder and red phosphorus
   (3) Red phosphorus and magnesium
   (4) Potassium and white phosphorus

63. A and B secrete their hormones when they receive orders from gland C. Which of the following can A, B and C respectively be ?
   (1) Thyroid, Adrenal glands, Pituitary
   (2) Pancreas, Adrenal glands, Thyroid
   (3) Testes, Ovaries, Thyroid
   (4) Pituitary, Pancreas, Thyroid

64. The image formed by a pinhole camera is real. Which of the following statements offers a suitable explanation for this fact ?
   (1) Light travels in a straight line.
   (2) Light diffracts on entering a small opening.
   (3) Light is a form of energy.
   (4) Light changes its path when it travels from one medium to another.

65. Identify the set comprising plants that produce bisexual flowers :
   (1) Mustard, Rose, Petunia
   (2) Cucumber, Papaya, Rose
   (3) Corn, Cucumber, Petunia
   (4) Corn, Papaya, Mustard

66. Read the statements given below and choose the correct option :
   Assertion (A): Stomach produces hydrochloric acid that helps in breakdown of food.
   Reason (R): Digestive juices need an acidic medium to act.
   (1) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
   (2) (A) is true, but (R) is false.
   (3) (A) is false, but (R) is true.
   (4) Both (A) and (R) are true and (R) is the correct explanation of (A).

67. What does the term 'nitrogen fixation' mean ?
(1) Conversion of ammonia into nitrates by the bacteria present in soil.
(2) Conversion of nitrogen compounds into gaseous nitrogen.
(3) Release of nitrogen present in dead organic matter back into soil.
(4) Conversion of atmospheric nitrogen to a more usable from for living organism.

68. Identify the set comprising cold blooded organisms.
(1) Pigeon, Humans, Lizard
(2) Lizard, Parrot, Dolphin
(3) Snake, Frog, Cockroach
(4) Whale, Frog, Earthworm

69. At which of the following positions does a spring have the least potential energy ?
(1) The spring is compressed to the minimum and is lying on the ground.
(2) The spring is neither compressed nor pulled out and is lying on the ground.
(3) The spring is compressed to the minimum and is placed at a height.
(4) The spring is pulled out to the maximum and is placed at a height.

70. Which of the following pairs of units are used for measuring the same physical quantity ?
(1) $kg\ m^2/s^2$, Ws
(2) $kg\ m/s^2$, Nm
(3) $kg\ m/s^2$, Ws
(4) $kg\ m^2/s^2$, J/s

71. A feather of mass 15 g is dropped from a height. It is found to fall with a constant velocity. What is the net force acting on it ?
(1) 1.47 N
(2) Zero
(3) 14.7 N
(4) 147 N

72. Select the set the correctly matches the type of waste given in Column A with the approximate time taken by it to decompose which is given in Column B.

Column-A	Column-B
(a) Plastic bottle	**(i)** 2 – 5 months
(b) Silk scarf	**(ii)** 1 – 2 weeks
(c) Cotton shirt	**(iii)** 10 – 30 days
(d) Banana peel	**(iv)** 4 years
(e) Paper	**(v)** Several years

Choose the correct option :
(1) a-v, b-iv, c-i, d-ii, e-iii
(2) a-iv, b-v, c-iii, d-i, e-ii
(3) a-iv, b-v, c-ii, d-i, eiii
(4) a-v, b-i, c-ii, d-iii, e-iv

73. Which of the following statements about the cells of living organism is/are correct ?
A. All are microscopic and cannot be seen with a naked eye.
B. All have a cell wall.
C. All have nuclear membrane.
D. All have a cell membrane.
Choose the correct option :
(1) A and D
(2) Only D
(3) B and C
(4) Only A

74. An ion X^{3+} is obtained from an element X (atomic mass 27 and atomic number 13). The number of protons, electrons and neutrons in X^{3+} is respectively:
(1) 10, 13 and 14
(2) 14, 13 and 10
(3) 13, 13 and 10
(4) 13, 10 and 14

75. Read the following statements and choose the correct option :
Assertion (A): Electric current is a vector quantity.
Reason (R): Electric current is a quantity having magnitude as well as direction.
(1) Both (A) and (R) are true, but (R) is not correct explanation of (A).
(2) (A) is true, but (R) is false.
(3) (A) is false, but (R) is true.
(4) Both (A) and (R) are true and (R) is the correct explanation of (A).

76. Densities of four liquids A, B, C and D are given below :

Liquid	A	B	C	D
Density (kg/m^3)	785	820	924	1020

Based on this information, identify the correct statement from the following :
(1) An object that floats in liquid A may or may not float in liquid B.
(2) An object that floats in liquid C may or may not float in liquid A.
(3) An object that floats in liquid B surely floats in liquid A.
(4) An object that floats in liquid C surely floats in liquid B.

77. Which of the following cell organelles contain their own DNA ?
A. Plastids
B. Mitochondria
C. Nucleus
D. Vacuole
Choose the correct option :
(1) B and C
(2) C and D
(3) A, B and C
(4) A, B and D

78. Read the following paragraph and choose the option with the set of words which would fill the blanks correctly in the given order.
During fertilisation, the sperm cell from the father and the egg cell of the mother fuse to form a W̲ which divides repeatedly to give rise to a ball of cells. The cells begin to develop into different organs and tissues. This developing structure called X̲ gets embedded in the wall of Y̲. The stage of X̲ in which all body parts can be identified is called Z̲.
W, X, Y, Z respectively are :
(1) zygote, embryo, uterus, foetus
(2) zygote, foetus, uterus, embryo
(3) embryo, zygote, fallopian tube, foetus
(4) zygote, foetus, fallopian tube, embryo

79. Which of the following graphs are straight lines ?
A. Distance – time graph of a body at rest
B. Velocity – time graph of body moving with uniform acceleration
C. Distance – time graph of body moving with uniform acceleration
D. Velocity – time graph of a body at rest
Choose the correct option :
(1) A, B and C
(2) A, B and D
(3) C and D
(4) A and B

80. Which of the following reactions are not feasible ?
    (1) $Al + CuSO_4$
    (2) $PbSO_4 + Fe$
    (3) $Zn + CaSO_4$
    (4) $Mg + ZnSO_4$

81. Which of the following is not correct in respect of the activities suggested as part of 'extended learning' in textbooks ?
    (1) These form an important basis of students' evaluation.
    (2) These are an important value-addition to children's repertoire of knowledge and skills.
    (3) Some of these require students to collect information of various kinds and draw conclusions on their own.
    (4) Some of these enhance children's interaction with experts, teachers and society at large.

82. Which of the following is/are ordinarily not implied in the context of 'Content validity' of Science curriculum ?
    A. The content is updated.
    B. The concepts are accurately represented.
    C. The concepts are trivialised for some learners.
    Choose the correct option :
    (1) A and B
    (2) Only B
    (3) A, B and C
    (4) Only A

83. After teaching the chapter 'Respiration in Organisms' in Class VII, a teacher performs the following activity with her students. They take three test tubes and fill $3/4^{th}$ of each with water. The test tubes are labelled as A, B and C. They put a snail in test tube A, a water plant in test tube B and in C they keep snail and plant both. the teacher then asks the students which test tube would have the highest concentration of CO_2. Which process skill is the teacher emphasising in this case ?
    (1) Estimating
    (2) Predicting
    (3) Measuring
    (4) Question raising

84. Identify the open-ended question from among the following :
    (1) What is cellulose made of ?
    (2) Why can humans not digest cellulose ?
    (3) What would happen if humans could digest cellulose ?
    (4) Name any five organisms that can digest cellulose.

85. Which of the following cannot be considered as a valid reason for including socio-scientific issues (such as the GM food) in the school science curricula?
    (1) Helpful in cultivating understanding about nature of science.
    (2) Develops argumentation skills.
    (3) Develops the capacity to engage in evidence-based reasoning.
    (4) Helpful in appreciating science as a definitive discipline.

86. Which of the following is/are about the curricular practice currently being followed in schools ?
    A. Science and Mathematics are being taught integratedly as 'Science and Technology' in elementary classes.
    B. Physics, Chemistry and Biology are being taught integratedly as 'Science' in secondary classes.
    C. Science and Social Science are being taught integratedly as 'EVS' in primary classes.

Choose the correct option :
(1) A and B
(2) B and C
(3) Only C
(4) Only B

87. A group of students is engaged in an activity in which they are measuring the boiling temperature of ordinary tap water in a beaker. Which of the following is not a suitable indicator to assess them on this task ?
    (1) Ensure that the thermometer does not touch the walls of the beaker.
    (2) Pay due attention to the least count of the thermometer.
    (3) Measure the boiling temperature as 100°C.
    (4) Use a stand to suspend the thermometer.

88. Which of the following would be the most suitable activity to introduce the concept of image formation in spherical mirrors in Class VII students ?
    (1) Students are asked to play with shiny, steel spoons and observe their images in it.
    (2) Students are asked to observe their images at various positions in a plane mirror.
    (3) Students are explained the laws of reflection.
    (4) Students are explained the process of drawing ray diagrams in curved mirrors.

89. Which of the following is not implied by the statement 'Good science education is true to the child, true to life and true to the discipline' ?
    (1) Science education should build a link between the child and his/her environment.
    (2) Science education should help the students acquire the processes of science.
    (3) Science education should train the students to remain disciplined in school.
    (4) Science classroom practices should be developmentally appropriate.

90. Which of the following can be considered as the most suitable rationale for team teaching ?
    (1) It benefits the students with diverse expertise.
    (2) It is an effective strategy for large sized classes.
    (3) It makes the task of assessment easier.
    (4) It is helpful in increasing student participation.

Language: English

Directions : Read the extract given below and answer the questions (Q. Nos. 91 to 96) that followed by selecting the correct/most appropriate option.

1. Love came to Flora asking for a flower
    That would of flowers be undisputed queen,
    The lily and the rose, long, long had been
    Rivals for that high honor. Bards of power
5. Had sung their claims. 'The rose can never tower
    Like the pale lily with her Juno mien' –
    'But is the lily lovelier ?' Thus between
    Flower-factions rang the strife in Psyche's bower.
    'Give me a flower delicious as the rose
10. And stately as the lily in her pride' –
    'But of what colour ?' – 'Rose-red', Love first chose,
    Then prayed, 'No, lily-white – or, both provide;'
    And Flora gave the lotus, 'rose-red' dyed,
    And 'lily-white', the queenliest flower that blows.

91. Which of the following attributes is not associated with the lily ?
  (1) Stateliness (2) The colour red
  (3) The colour pale white (4) Loveliness

92. Read the following statements and choose the correct option :
  Assertion (A) : The poets did not declare the lily as the queen of flowers.
  Reason (R) : The lily was pale coloured.
  (1) (A) is not true, (R) is partially true.
  (2) (A) is true, but (R) is not the only reason for it.
  (3) Both (A) and (R) are true.
  (4) Both (A) and (R) are not true.

93. Psyche's garden echoed with the sounds of a dispute between the supporters of :
  (1) the lotus and the rose.
  (2) Love and bards of power.
  (3) all the 3 flowers – rose, lotus and lily.
  (4) the lily and the rose.

94. Identify the rhyme scheme in lines 1 – 4.
  (1) aabb (2) abab
  (3) abba (4) abcb

95. Identify the poetic devices in Line 1 and Line 10.
  (1) personification, simile (2) anaphora, metaphor
  (3) metaphor, simile (4) alliteration, simile

96. Complete the word analogy :
  delicious : inviting : : strife : ?
  (1) melody (2) conflict
  (3) adventure (4) discussion

Directions : Read the passage given below and answer the questions (Q. Nos. 97 to 105) that follow by selecting the correct/most appropriate option.

1. A majority of people think that their dream job is too hard to achieve, too competitive and believe that it is all a matter of luck. All this is true actually, but why should that stop anyone from trying to get the job they really want ? A really determined person will always succeed and, in many ways, will need other people to give up trying so that he can succeed.

2. Many job seekers feel limited by the choices they made at college. They may think that because they studied marketing, all they can ever do is work in marketing. All the evidence shows that, in fact, employers are less interested in acquired knowledge than the ability to think and learn. It is also very difficult to predict the needs of society. For example, if a person chose to study dentistry because there was a lack of dentists when he was in high school, that may not be the case when he graduates. The needs of employers and the economy can change very quickly, and often unexpectedly.

3. Of course, if it is a very tough time economically, it is hard to find employment straight after university, but it is by no means impossible. It might take several months longer to find a job after graduating, but there is work out there. A really key piece of advice is never to get downhearted by rejection because there will probably be a lot you can do to achieve your dream job, whatever it is. You must never give up. Be prepared to work hard and for long hours without necessarily climbing up the career ladder. There is a lot to be said for learning your trade from the bottom up. At the start, there will probably be little money, but it will be worth it in the end. The best jobs are not supposed to be easy — that is what makes them challenging. And if you like a challenge, just keep your head down and go for it.

97. Read the following sentences :
  A. Determined people succeed occasionally.
  B. Few people believe that getting their dream job is a matter of luck.
  C. A majority of the people think that dream jobs are highly competitive.
  (1) A and B are incorrect, C is correct.
  (2) B and C are incorrect, A is correct.
  (3) A and B are correct, C is incorrect.
  (4) A and C are incorrect, B is correct.

98. Why is it not easy to predict the needs of society ?
  (1) Employers only seek graduates who are knowledgeable.
  (2) Job seekers don't take appropriate career decisions.
  (3) The needs of the employers and economy are changing at a fast pace.
  (4) Because there is a lack of dentists in the society.

99. A job seeker who likes challenges should keep his head down. This means he should ....
  (1) bow down his head
  (2) walk away in anger
  (3) avoid troublesome situations
  (4) confront challenging situations

100. What advice does the writer not give employment seekers in para 3 ?
  (1) To be prepared for long hours of work
  (2) To be dejected by rejection
  (3) To never give up the search for a dream job
  (4) To be patient in the search for a job

101. Identify the underlined words (parts of speech) in the following sentence :
  A <u>majority</u> of people think that their dream job is too <u>hard</u> to achieve.
  (1) adjective, noun (2) noun, adjective
  (3) adverb, noun (4) noun, adverb

102. Job seekers <u>feel limited</u> by the choices they made at college.
  The underlined phrase means :
  (1) to feel constrained (2) to feel dejected
  (3) to feel limitless (4) to feel confused

103. Read the following statement and choose the correct option :
  Assertion (A) : It is quite easy to get a job immediately after graduating from a university.
  Reason (R) : The economic scenario regarding job generation is difficult.
  (1) Both (A) and (R) are incorrect.
  (2) (A) does not justify (R).
  (3) (A) is incorrect, but (R) is correct.
  (4) Both (A) and (R) are correct.

104. 'Learning the trade from the bottom up' means :
  (1) trading places with others.
  (2) from the lowest to the highest in hierarchy.
  (3) from your colleagues.
  (4) inter-departmental learning.

105. Complete the word analogy.
  expectedly : unexpectedly : : rejection : ?
  (1) probation (2) eviction
  (3) dejection (4) selection

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

106. Read the following statements and choose the choose the correct option :

Assertion (A) : Reading and writing skills help in critical thinking at the primary level.

Reason (R) : Critical thinking is a sub-skill of reading and writing.

(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 false, but (R) is true.

(4) (A) is true, but (R) is false.

107. Language skills are best learnt :

(1) if the teacher focuses on one skill at a time.

(2) with the help of challenging and mechanical language drills.

(3) if they are dealt with in an integrated manner.

(4) only through written tests and assignments.

108. To assess whether students have understood how to use the narrative skill, a teacher should ask students to :

(1) circle the verbs and adjectives in the text.

(2) share an incident when they were surprised.

(3) correct the mistakes in the use of describing words.

(4) read a story and answer comprehension-based questions.

109. A teacher of Class VII is facilitating the reading of books other then the prescribed textbooks. She is promoting their :

(1) Shared reading　　(2) Intensive reading

(3) Extensive reading　(4) Guided reading

110. The principal asked the language teacher to select the textbooks and other resources for the new session. While selecting them, which one of the following is not relevant ?

(1) Learning needs and languages known to children

(2) Adaptability of the books and resources

(3) Level of the students

(4) Conceptual complexity and density of material

111. The teacher developed the criteria to monitor the use of language materials by learners. Which criteria are most important and helpful in monitoring the use of material ?

(1) Usability, repetition and production of utterances

(2) Present, prepare and practice the material

(3) Observation, feedback sessions and written reports

(4) Checklist, assumptions and learning outcomes

112. A teacher showed a movie with the captions to learners in Class VI. The movie is based on one of the chapters in the textbook. The movie with captions on will encourage :

(1) active viewing and listening.

(2) listening strategies, active viewing, and motivating the students to use authentic language material.

(3) the students to watch more such movies.

(4) listening strategies by verbal clues and to appreciate the actions of actors, and to write a review.

113. Read the following statements and choose the correct option :

Assertion (A) : A child in his early childhood stage uses more verbs than nouns and ignores the grammar rules.

Reason (R) : They lack vocabulary range.

(1) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

(2) (A) is true, but (R) is false.

(3) (A) is false, but (R) is true.

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

114. A child share her language classroom experiences with her mother and says that sometimes we cover eyes and the teacher asks us to pick an object out of a bag. Then we have to try to describe it. It's a really good way to learn.

This comment shows the child's preference of learning. Identify her preference.

(1) I remember language well when I hear it.

(2) I remember language well when I move.

(3) I remember language well when I copy it.

(4) I remember language well when I see it.

115. Read the example of what a learner does and choose the strategy that matches the example.

"If I don't know what something means, I look it up."

(1) Using opportunities for practice

(2) Consulting reference materials

(3) Confused state of mind

(4) Focusing on collocations

116. A diagnostic test is used to assess :

(1) Learners' ability to recognise their own language mistakes.

(2) learners' ability to summarise the main points in a text.

(3) and rank learners in order of achievement.

(4) learners' strong and weak points in language.

117. A proficiency test always assesses :

(1) the language that students have been taught.

(2) the level of language that learners have reached.

(3) the multisensory learning experiences.

(4) the language of daily conversation.

118. A teacher divided learners into groups, and asked them to do a quiz about 'elephants' before reading a story about them. The objective of the teacher is to :

(1) give peer feedback.

(2) generate interest in a topic.

(3) write a text review.

(4) test their memory.

119. In a language classroom, a student is disturbing the class. To handle this disruptive student, the teacher should :

(1) address the diligent students

(2) first talk to the children to offer remedies.

(3) depend on the parents to offer remedies.

(4) report the behaviour of the student to the school authority.

120. When students "brainstorm ideas, organise, draft, edit and revise their work," which skill does this process reflect ?

(1) Speaking skill　　(2) Reading skill

(3) Writing skill　　(4) Listening skill

Language: Hindi

निर्देश : निम्नलिखित कविता को पढ़कर पूछे गए प्रश्नों (प्र. सं. 121 से 126) में सही/सबसे उपयुक्त उत्तर वाले विकल्प को चुनिए।

जिन्हें सपने अपने पाने हैं
बन जाते वे तो दीवाने हैं
गर लक्ष्य जो साधा है तूने
उसे पाने की कोशिश तू कर
चल आगे बढ़ तूफानों से न डर।
चल कश्ती उठा, सागर में उतर।
है रात अँधेरी फिक्र है क्या
एक दिन आएगी अपनी सहर
चल कश्ती उठा, सागर में उतर।

121. कविता के अनुसार अपने स्वप्नों को पूर्ण करने के लिए आवश्यक है:
(1) अनुकूल परिस्थितियाँ होना। (2) निष्ठा एवं इच्छा शक्ति होना।
(3) स्वप्न देख पाना। (4) धन-संपदा का होना।

122. जीवन में सुख-दुःख, आशा-निराशा की स्थिति :
(1) सदैव नहीं रहती। (2) मानव को हरा देती है।
(3) मानव को सशक्त बनाती है। (4) सदैव बनी रहती है।

123. 'सहर' का अर्थ है :
(1) रात (2) सुबह
(3) शाम (4) निराशा

124. कविता की कौन-सी पंक्ति मनुष्य के मनोबल को बढ़ाती है?
(1) जिन्हें सपने अपने पाने हैं।
(2) गर लक्ष्य जो साधा है तूने।
(3) एक दिन आएगी अपनी सहर।
(4) चल कश्ती उठा, सागर में उतर।

125. कविता के मुख्य स्वर के रूप में कौन-सा वाक्यांश उचित है?
(1) सागर में उतर (2) जो साधा है तूने
(3) एक दिन आएगी (4) है रात अँधेरी

126. 'फिक्र' का समानार्थी शब्द है :
(1) चुनौती (2) चिता
(3) चिंता (4) डरना

निर्देश : निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों (प्र. सं. 127 से 135) में सही/सबसे उपयुक्त उत्तर वाले विकल्प को चुनिए।

कहते हैं मनुष्य ने नौ से दस हजार साल पहले बौद्धिक दृष्टिकोण की खोज की थी। वह भक्ति मार्ग था। मानव इतिहास के दस दौर के लोग सबसे बुद्धिमान थे। मैंने पहले ही कहा कि आध्यात्मिक दुनिया का महत्त्व बहुत अधिक है। फिर भी सापेक्ष दुनिया पूरी तरह से महत्त्वहीन नहीं है। जब सुदूर अतीत में मनुष्यों ने महसूस किया कि कर्म योग और ज्ञान योग उन्हें सच्ची प्रगति प्राप्त करने में मदद नहीं करेंगे, तो उन्होंने तुरंत भक्ति योग को अपना लिया।

उन्होंने अनुभव किया कि भक्ति ही उनके लिए एकमात्र मार्ग है। मनुष्य आज अपने विकसित कर्म और ज्ञान योग के कारण और भी आगे बढ़ गया है। इस प्रकार अपने पूर्वजों की तुलना में वह भक्ति के मार्ग पर चलने की आवश्यकता को अधिक तेजी से महसूस करेगा। यह कर्म और ज्ञान योग का उज्ज्वल पक्ष है। यानी ये दोनों योग भक्ति मार्ग को और मजबूत करेंगे।

127. 'इस दौर के लोग सबसे बुद्धिमान थे।' वाक्य के रेखांकित अंश में किस दौर के लोगों की चर्चा की गई है?
(1) मानव इतिहास में नाम दर्ज करवाने वाले लोगों की।
(2) बौद्धिक दृष्टिकोण खोजने वाले धनी लोगों की।
(3) नौ-दस हजार वर्ष पूर्व के लोगों की।
(4) मानव इतिहास में लक्ष्य प्राप्त करने वाले लोगों की।

128. भक्ति योग का महत्त्व है :
(1) ज्ञान योग की प्रगति में (2) वास्तविक प्रगति की प्राप्ति में
(3) सापेक्ष दुनिया की प्राप्ति में (4) कर्म योग की प्रगति में

129. .... एवं .... योग भक्ति मार्ग को सशक्त करेंगे।
(1) कर्म योग, भक्ति योग (2) भक्ति योग, ज्ञान योग
(3) ज्ञान योग, राज योग (4) कर्म योग, ज्ञान योग

130. गद्यांश के आधार पर कहा जा सकता है कि मानव जीवन में ...... का महत्त्व सर्वाधिक है।
(1) ज्ञान योग (2) कर्म योग
(3) आध्यात्मिकता (4) बौद्धिक दृष्टिकोण

131. मानव जीवन के लिए एकमात्र मार्ग है :
(1) ज्ञान का (2) भक्ति का
(3) राज का (4) कर्म का

132. मनुष्य के पूर्वजों ने किस चीज की आवश्यकता को नहीं समझा था ?
(1) भक्ति मार्ग की (2) ज्ञान मार्ग की
(3) कर्म मार्ग की (4) मानसिक विकास की

133. विशेषण-विशेष्य का उदाहरण है :
(1) उज्ज्वल पक्ष (2) सबसे बुद्धिमान
(3) मानव इतिहास (4) अधिक तेजी

134. 'सापेक्ष' का विलोम शब्द है :
(1) असापेक्ष (2) निरापेक्ष
(3) निरपेक्ष (4) अनापेक्ष

135. समूह से भिन्न शब्द है :
(1) मदद (2) साल
(3) तेजी (4) कर्म

निर्देश : नीचे दिए गए प्रश्नों के लिए सही/सबसे उपयुक्त विकल्प चुनिए।

136. निम्नलिखित कथनों को पढ़िए तथा सही विकल्प का चयन कीजिए:
अभिकथन (A) : पठन और लेखन कौशल प्राथमिक स्तर पर समालोचनात्मक चिंतन में मदद करते हैं।
तर्क (R) : समालोचनात्मक चिंतन, पठन और लेखन का उप-कौशल है।
(1) (A) और (R) दोनों सही हैं, परन्तु (R), (A) की सही व्याख्या है।
(2) (A) और (R) दोनों सही हैं तथा (R), (A) की सही व्याख्या नहीं है।
(3) (A) गलत है, परन्तु (R) सही है।
(4) (A) सही है, परन्तु (R) गलत है।

137. भाषायी कौशल सीखने का सर्वाधिक उपयुक्त तरीका है :
(1) एक समय पर एक ही कौशल पर ध्यान केन्द्रित करके
(2) चुनौतीपूर्ण और यान्त्रिक भाषा ड्रिलों की मदद से
(3) समावेशित युक्तियों के माध्यम से
(4) केवल लिखित परीक्षा और प्रदत्त कार्यों द्वारा

138. विद्यार्थियों ने वर्णनात्मक कौशल का प्रयोग करना सीखा है या नहीं, इस बात का आकलन करने के लिए अध्यापक को विद्यार्थियों को क्या करने के लिए कहना चाहिए?
(1) पाठ्य-वस्तु में आए क्रिया और विशेषण शब्दों पर गोल घेरा लगाओ
(2) एक ऐसी घटना साझा करो जब उन्हें बहुत अचंभा हुआ हो।
(3) वर्णन करने वाले शब्दों के प्रयोग में हुई गलतियों को सही करो।
(4) कहानी पढ़ो और बोध आधारित प्रश्नों के उत्तर दो।

139. कक्षा VII की अध्यापिका निर्धारित पाठ्य-पुस्तकों के अलावा अन्य पुस्तकों के पठन को सुलभ कर रही है। वह किस तरह के पठन को समुन्नत कर रही है?
(1) साझा पठन
(2) गहन (इंटेंसिव) पठन
(3) विस्तृत (एक्सटेंसिव) पठन
(4) निर्देशित पठन

140. प्रधान अध्यापिका ने भाषा अध्यापक को नए सत्र के लिए पाठ्य-पुस्तकों तथा अन्य संसाधनों का चयन करने के लिए कहा। इनका चयन करते समय, निम्नलिखित में से एक प्रासंगिक नहीं है :
(1) बच्चों की अधिगम आवश्यकताएँ और उन्हें आने वाली भाषाएँ
(2) पुस्तकों और संसाधनों की अनुकूलनता
(3) विद्यार्थियों का स्तर
(4) सामग्री की अवधारणात्मक जटिलता और गहनता

141. अध्यापक ने शिक्षार्थियों द्वारा भाषा सामग्री के प्रयोग का निरीक्षण करने के लिए मानदण्ड निर्धारित किए। सामग्री के प्रयोग का निरीक्षण करने के लिए कौन-सा मानदण्ड सर्वाधिक रूप से महत्त्वपूर्ण और सहायक है?
(1) उपयोग, दोहराव और अभिव्यक्ति
(2) सामग्री की उपलब्धता, तैयारी और अभ्यास
(3) अवलोकन, पृष्ठपोषण सत्र और लिखित रिपोर्ट
(4) चैक लिस्ट, पूर्वानुमान और अधिगम प्रतिफल

142. एक अध्यापक ने कक्षा VI के शिक्षार्थियों को कैप्शन (शीर्षकों) के साथ एक फिल्म दिखायी। यह फिल्म पाठ्य-पुस्तक के एक अध्याय पर आधारित थी। कैप्शन के साथ दिखायी जा रही फिल्म किस बात के लिए प्रोत्साहित करेगी ?
(1) सक्रिय रूप से देखना और सुनना।
(2) श्रवण युक्तियाँ, सक्रिय रूप से देखना और विद्यार्थियों को भाषा की प्रामाणिक सामग्री का प्रयोग करने के लिए प्रोत्साहित करना।
(3) इस तरह की और फिल्में देखने के लिए विद्यार्थियों को प्रोत्साहित करना।
(4) मौखिक संकेतों द्वारा श्रवण युक्तियाँ, पात्रों के अभिनय की सराहना और समीक्षा लिखना।

143. निम्नलिखित कथनों को पढ़िए तथा सही विकल्प का चयन कीजिए:
अभिकथन (A) : अपने प्रारंभिक बाल्यावस्था में एक बच्चा संज्ञा की अपेक्षा क्रियाओं (वर्ब) का अधिक प्रयोग करता है और व्याकरणिक नियमों की अनदेखी करता है।
तर्क (R) : उनकी शब्द संपदा बहुत सीमित होती है।
(1) (A) और (R) दोनों सही हैं, परन्तु (R), (A) की सही व्याख्या नहीं है।
(2) (A) सही है, परन्तु (R) गलत है।
(3) (A) गलत है, परन्तु (R) सही है।
(4) (A) और (R) दोनों सही हैं तथा (R), (A) की सही व्याख्या है।

144. एक बालिका अपनी भाषा कक्षा का अनुभव माँ के साथ साझा करती है और कहती है कि कभी-कभी हम अपनी आँखें बंद करते हैं और हमें अध्यापिका अपने बस्ते में से कोई भी वस्तु निकालने के लिए कहती हैं। फिर हमें उस वस्तु के बारे में बताना होता है। यह सीखने का बहुत अच्छा तरीका है।
बच्चे की यह टिप्पणी अधिगम के बारे में बच्चे की प्राथमिकता की ओर संकेत करती है। उसकी प्राथमिकता की पहचान कीजिए :
(1) मैं जब सुनती हूँ तो भाषा प्रयोग अच्छी तरह से याद कर लेती हूँ।
(2) जब मैं कुछ करती हूँ तो भाषा प्रयोग अच्छी तरह से याद कर लेती हूँ।
(3) जब मैं देख कर नकल करती हूँ तो भाषा प्रयोग अधिक अच्छी तरह से याद कर लेती हूँ।
(4) मैं जब देखती हूँ तो भाषा प्रयोग अच्छी तरह से याद कर लेती हूँ।

145. शिक्षार्थी क्या करती है, उस उदाहरण को पढ़ें और उदाहरण से मेल खाती हुई युक्ति का चयन कीजिए :
'यदि मुझे किसी का अर्थ समझ में नहीं आता तो मैं देखने का प्रयास करती हूँ।'
(1) अभ्यास के लिए अवसरों का प्रयोग करना।
(2) संदर्भ सामग्री की मदद लेना।
(3) मस्तिष्क की भ्रमित स्थिति।
(4) विन्यास पर ध्यान देना।

146. नैदानिक परीक्षणों का प्रयोग किसके आकलन के लिए किया जाता है?
(1) शिक्षार्थी की अपनी भाषा संबंधी गलतियों को स्वयं पहचानने की योग्यता।
(2) पाठ्य-वस्तु के मुख्य बिन्दुओं का सारांशीकरण करने की योग्यता।
(3) शिक्षार्थियों को उपलब्धियों के क्रम में श्रेणीबद्ध करना।
(4) शिक्षार्थी के भाषा के मजबूत और कमजोर बिन्दु।

147. निपुणता परीक्षण सदैव किसका आकलन करते हैं?
(1) विद्यार्थियों को पढ़ायी गयी भाषा।
(2) भाषा का वह स्तर जहाँ तक विद्यार्थियों की पहुँच बन गयी है।
(3) बहुसंवेदी अधिगम अनुभव।
(4) दैनिक वार्तालाप की भाषा।

148. एक अध्यापक ने विद्यार्थियों को समूहों में विभाजित किया और हाथियों पर कहानी पढ़ने से पहले उनके बारे में आयोजित प्रश्नोत्तरी में भाग लेने के लिए कहा। यहाँ पर अध्यापक का क्या मन्तव्य है?
(1) सहपाठी पृष्ठपोषण।
(2) टॉपिक के प्रति रुचि पैदा करना।
(3) पाठ्य-वस्तु की समीक्षा लिखना।
(4) उनकी स्मृति का परीक्षण करना।

149. भाषा की कक्षा में एक विद्यार्थी अवरोध पैदा कर रहा है। इस विद्यार्थी के साथ किस तरह का व्यवहार किया जाना चाहिए ?
(1) उद्यमी विद्यार्थियों पर ध्यान देना चाहिए।
(2) बच्चों को समाधान खोजने के लिए कहना चाहिए।
(3) समाधान खोजने के लिए अभिभावकों पर निर्भर रहना चाहिए।
(4) विद्यालय प्रशासन को इस विद्यार्थी के बारे में बताना चाहिए।

150. विद्यार्थी किसी विचार बिन्दु पर मानस-मंथन करते हैं, संयोजन करते हैं, प्रारूपण करते हैं, संपादन करते हैं और अन्तत: अपने कार्य की पुनरावृत्ति भी करते हैं।
इस प्रक्रिया द्वारा कौन-सा कौशल प्रतिबिम्बित होता है?
(1) वाचन कौशल
(2) पठन कौशल
(3) लेखन कौशल
(4) श्रवण कौशल

ANSWER KEY

Child Development and Pedagogy

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

Mathematics and Science

31. (3)	**32.** (4)	**33.** (2)	**34.** (4)	**35.** (2)
36. (4)	**37.** (3)	**38.** (4)	**39.** (4)	**40.** (1)

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

Language: English

91. (2)	**92.** (2)	**93.** (4)	**94.** (3)	**95.** (1)

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

Language: Hindi

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

Child Development & Pedagogy

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

Explanation: A conducive classroom environment for middleclass learning is centered around cooperative learning. Cooperative learning encourages students to work collaboratively in groups. It promotes engagement, social interaction and problem-solving skills. Other options as fear-based approaches, competitiveness, and conditioning are less effective and can hinder positive learning outcomes.

Co-operative learning's emphasis on teamwork, critical thinking, and mutual respect.

It creates an optimal setting for holistic development and effective learning.

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

Explanation: The teacher can encourage Aman to brainstorm and generate ideas which will foster critical thinking and creativity. This method will promote active engagement and will help Aman to explore various ways to solve problems.

Brainstorming promotes resilience and a growth mindset, as a student learns through trial and error. While the other options hinder the development by discouraging persistence, experimentation, and independent thinking, respectively. Guiding a student to think critically and explore diverse solutions is needed in cultivating wholesome problem-solving abilities.

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

Explanation: The essence of 'understanding-based teaching' lies in the notion that learners can actively construct knowledge when given the right environment. This helps Learners to construct knowledge when provided with a facilitative environment to do so. Instead of being passive recipients, students thrive when they engage in a facilitative setting that encourages exploration and critical thinking. The teacher plays a role as a guide, nurturing this process of knowledge construction. This stands in contrast to options (1) and (4), which involve one-sided knowledge transmission, and option (2), which overlooks the depth of individualized instruction.

'Understanding-based teaching' nurtures proactive learning. It allows students to delve deeper into comprehension and problem-solving abilities.

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

Explanation: Dyslexic students can effectively learn to read through structured phonological training. It emphasizes developing phonemic awareness, sound-letter connections, and decoding skills. Dyslexia poses challenges in these areas, and targeted training can address these issues. By tailoring instruction to enhance phonological skills, educators can empower dyslexic students to sur-mount reading hurdles and foster crucial reading abilities.

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

Explanation: Relationships with peers and siblings are similar in many ways, but there are some important differences. First, while children and adolescents can, at least to some extent, choose their peers, siblings come as a given. Second, in sibling relationships there is competition for parents' attention and love.

Siblings form a child's first peer group, and children learn social skills from interactions with brothers and sisters, especially in managing conflict.

Hence, Sibling relationships are different than relationships with parents and peers and plays a important role in socialization throughout childhood.

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

Explanation: As stated in Assertion (A) that there are significant variations in developmental rates among children. Reason (R) provides the correct explanation, attributing these differences to the complex interplay of genetic and experiential factors, where Genetic makeup and life experiences contribute to the unique developmental trajectories observed among children. Concluding, both statements are accurate, and Reason (R) clarifies why developmental variations are present, establishing a cause-and-effect relationship.

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

Explanation: "Children who are deprived of a conducive environment for learning language in their early years have some difficulty in picking language later in life" illustrates the sensitive period of language development principle. This principle states that there is a critical period in early childhood during which children are most receptive to learning language. If children do not have the opportunity to learn language during this period, they may have difficulty learning it later in life.

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

Explanation: Question: Which can be the best way to save water and why? promotes critical and creative thinking because it requires the child to think about the different ways to save water and to justify their choice. The child will need to consider the different factors involved in water conservation, such as the availability of water, the cost of water, and the environmental impact of water use. They will also need to think about the different ways to implement their chosen solution.

NOTE: We can ask questions which should be start with 'why', 'how' to students to think critically in different directions.

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

Explanation: Inclusive education is an approach to education that ensures that all students, regardless of their abilities, are able to learn and participate in the same educational setting. This means that students with disabilities are not separated from their peers in special schools or classrooms, but instead learn alongside them in regular classrooms. To make this possible, inclusive education requires a number of things, including: Flexible and adaptable curriculum, well-trained teachers and supportive environment.

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

Explanation: Evidence is essential to critical thinking. It is the basis on which we make decisions and form judgments. Without evidence, we are left to rely on our own biases and opinions, which can often be inaccurate or misleading. When evaluating evidence, it is important to be systematic and logical.

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

Explanation: Jean Piaget and Lev Vygotsky certainly have different perspectives approximately how language affects children's thinking. Piaget thinks that cognitive development takes place before language mastering, at the same time Vygotsky believed that language and social interactions help children grow mentally. The reason is not the correct explanation because discovery learning is not the only way that language can influence cognitive development. Children can also learn

language through social interactions, such as conversations with adults and peers.

12. **Option (3) is correct.**
Explanation: In a progressive classroom, students are encouraged to ask questions because it is a way of learning and understanding. Asking questions helps students to think critically, make connections between different ideas, and become more engaged in their learning. Students are encouraged to ask questions to the teacher, to each other, and to themselves. Teachers can encourage students to ask questions by modeling, creating a safe space, using wait time, praising students for asking questions, and encouraging students to ask questions to each other. By encouraging students to ask questions, teachers can help them to become better learners and thinkers.

13. **Option (2) is correct.**
Explanation: Gender roles are expectations associated with being male or female.

These roles are learned from a variety of sources, including parents, peers, teachers, and the media. They can be learned during childhood and adolescence, and they can continue to be learned and reinforced through-out adulthood. Gender roles can have a significant impact on how people behave and interact with others. They can also be harmful, limiting people's opportunities and choices, and leading to discrimination and oppression. We should challenge gender roles and work towards a more equitable society where everyone is free to be themselves, regardless of their gender.

14. **Option (4) is correct.**
Explanation: The view of intelligence as multidimensional and changing over time recognizes that there are many different ways to be intelligent and that intelligence is not fixed. This means that all learners, regardless of their background or abilities, have the potential to learn and grow. This view of intelligence is more respectful of diversity because it does not label learners as "smart" or "not smart." Instead, it focuses on helping all learners reach their full potential. This can be done by providing different learning opportunities for different students, or by helping students to develop their strengths.
NOTE: Howard Gardner was the propounder of the 'Multidimensional Intelligence Theory'.

15. **Option (1) is correct.**
Explanation: The person who criticized the idea of 'general (common)' intelligence and came up with a different theory is Howard Gardner. He proposed the theory of multiple intelligences. Gardner argues that intelligence is not just one thing; It takes many forms such as logical thinking, language skills, creativity, and more. So instead of one 'cleverness', he believed people had different strengths in different areas. Jean Piaget and Lev Vygotsky are known for their work in child development, and Charles Spearman is associated with the concept of a general (common) intelligence factor.

16. **Option (2) is correct**
Explanation: Carol Gilligan criticized Lawrence Kohlberg's theory of moral development for ignoring gender differences in moral reasoning. According to Gilligan it did not take into account enough how men and women can think about behaviour differently. Carol Gilligan believed that Lawrence Kohlberg's stages of moral development focused too much on the male perspective and may not be applicable to girls' moral reasoning.

17. **Option (3) is correct.**
Explanation: When it comes to teaching, a good approach according to general learning principles is first introduces the concept overall and then moves on to the intricacies of it, which means a teacher should give students a big picture of the concept before diving into the details. This method helps students understand the overall idea first, building a solid foundation. Once they get the main concepts, they can understand the finer points well.

18. **Option (1) is correct.**
Explanation: The most effective strategy to help students develop metacognitive skills is to encourage them to reflect on their own learning and evaluate their progress. This strategy helps students to become aware of their own thinking and learning processes, and to identify what they are doing well and where they need to improve. It also helps students to develop self-monitoring skills, so that they can track their own progress and make adjustments as needed.

19. **Option (4) is correct.**
Explanation: Both (A) and (R) are true statements. However, (R) is not the correct explanation of (A). Thinking of examples does help to strengthen the concept, but it is not the only reason why teachers should ask students to identify their own examples and non-examples. Non-examples can also be helpful in strengthening the concept by helping students to distinguish between what is an example of the concept and what is not. For example, if a teacher is teaching a concept about shapes, they might ask students to identify examples and non-examples of triangles. By identifying examples of triangles, students will learn what the properties of triangles are. By identifying non-examples of triangles, students will learn what the properties of triangles are not. This will help students to strengthen their understanding of the concept of triangles.

Therefore, the correct option for the question is (1) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

20. **Option (4) is correct.**
Explanation: Critical self-reflection is the process of examining our own beliefs and biases, and challenging them when necessary. This is essential for breaking down stereotypes, because stereotypes are often based on unconscious beliefs and biases. By engaging in critical self-reflection, we can become more aware of our own stereotypes and challenge them. Therefore, teachers should work hard to break down students' stereotypes by enabling them to engage in critical self-reflection. This can be done by providing opportunities for students to learn about different cultures and ethnic groups, and by encouraging them to think critically about their own beliefs and biases.

21. **Option (1) is correct.**
Explanation: Mastery goals are focused on improving one's own skills and understanding of a task. Students with mastery goals are motivated to learn and master the material, even if it means making mistakes along the way. They are also more likely to persist in the face of challenges. Performance goals are focused on achieving a high grade or receiving external rewards. Students with performance goals are motivated to do well in comparison to others, and they may be more likely to give up or cheat if they are not doing well.

22. **Option (1) is correct.**
Explanation: Intrinsic motivation is the motivation to do something for its own sake, without any external rewards or punishments. Playing a musical instrument for personal enjoyment is an example of intrinsic motivation because the person is motivated by the pleasure of playing the instrument, not by any external rewards, such as praise or money.

23. **Option (4) is correct.**
Explanation: Piaget's four stages of cognitive development are a universal sequence that all children go through, regardless of their culture or environment. The stages are:

- **Sensorimotor stage (birth to 2 years):** Children learn about the world through their senses and motor actions.
- **Preoperational stage (2 to 7 years):** Children begin to use language and symbols to represent the word.
- **Concrete operational stage (7 to 11 years):** Children can think logically about concrete objects and events.

● **Formal operational stage (11 years and up):** Children can think abstractly and hypothetically.

24. Option (4) is correct.

Explanation: Vygotsky believed that cognitive development is a social process that takes place through interaction with others. He argued that children learn by interacting with more knowledgeable people, such as parents, teachers, and peers. This interaction helps children to develop their cognitive abilities and to learn new skills. Vygotsky's theory is based on the idea that learning is mediated by culture. This means that children learn through the use of cultural tools, such as language, writing, and mathematics. These tools allow children to think and communicate in more complex ways.

25. Option (4) is correct.

Explanation: Piaget's theory of cognitive development is based on the idea that children's development is universal and follows a fixed sequence. However, this has been challenged by research that has shown that children's cognitive development is influenced by their culture. For example, children from different cultures develop different concepts of time and space. This suggests that children's cognitive development is not simply a matter of maturation, but is also influenced by the cultural context in which they are raised.

26. Option (2) is correct.

Explanation: From Assertion (A), the teacher to trying to understand to her student the gender stereotype by presenting the example as a female mathematics professor and a male nurse while,

From Reason (R), This is completely wrong because Gender roles or stereotypes are usually initiated by the society and girl or boy usually discouraged by the society for participating the opposite gender career fields.

27. Option (2) is correct.

Explanation: Hearing impairment can make it difficult for children to hear and understand speech. This can lead to problems with language development, as well as difficulty in following directions and participating in class discussions. Children with hearing impairment may also have difficulty understanding the emotions of others, which can make it difficult to form relationships. There are a number of things that can be done to help children with hearing impairment communicate effectively. These include using clear and simple language, facing the child when speaking, speaking slowly and deliberately, using gestures and facial expressions, providing visual aids, and encouraging children to ask questions if they do not understand

something. With the right support, children with hearing impairment can learn to communicate effectively and participate fully in school and other activities.

28. Option (4) is correct

Explanation: Gifted students usually stand out from their classmates in two main ways: they have a deeper understanding of things (A), and they tend to learn faster (B). This means they can get a handle on complex ideas quickly and really dive into subjects. The other options (1, 2, and 3) include characteristics that don't normally define gifted students, like relying on others for understanding (C) or experiencing rapid physical development (D).

29. Option (4) is correct.

Explanation: Accommodation and modification are two terms used in education to describe changes that can be made to the curriculum or teaching methods to make it easier or possible for students with disabilities to learn.

Accommodation is a change that makes it easier for a student to learn. For example, a student with dyslexia may be given extra time to complete tests or allowed to use a computer for taking notes.

Modification is a change that makes it possible for a student to learn. For example, a student with a physical disability may be given a different way to access the curriculum, such as through audio recordings or Braille.

The main difference between accommodation and modification is that accommodation makes learning easier, while modification makes learning possible.

30. Option (3) is correct.

Explanation: The constructivist view of knowledge is a theory of learning that states that learners construct knowledge by actively engaging with the world around them.

This means that learners must make sense of new information and experiences in terms of their own prior knowledge and understanding. The social and cultural context in which learners live plays an important role in the construction of knowledge, as learners are constantly interacting with others and these interactions shape their understanding of the world.

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31. Option (3) is correct.

Explanation: Conjecture is the statement or opinion which seems to be true but yet has not been proved.

Given: Case (1), $(6n - 1)$ are always prime numbers. When $n = 1$,
$(6 \times 1 - 1) = 6 - 1 = 5$
5 is a prime number.
Similarly, when $n = 2, 3, 4, 5, 7, 8, 9$ prime numbers are obtained.

But when n is 6, the obtained number is a composite number.

Case (2) $(6n + 1)$ are always prime numbers. When $n = 1$,
$(6 \times 1 + 1) = 6 + 1 = 7$
7 is a prime number.
Similarly, when $n = 2, 3, 5, 6, 7$ prime numbers are obtained.

But when the value of n is 4, 8 and 9, composite numbers are obtained.

By keeping different values of n, we conclude that sometimes the given statement is correct and sometimes it is false.

32. Option (4) is correct.

Explanation: A and B are daily life problems based on unitary methods.

In (A), calculation for payment of house rent is asked which is based on a unitary method. This is an example of a daily life problem.

Similarly, in (B), the cost of 3 dozen bananas is given and it is asked to calculate the number of bananas which can be brought in ₹ 45. This problem is based on the unitary method. This example is also a daily life problem.

33. Option (2) is correct.

Explanation: By giving such examples, the teacher is trying to discuss the transversal line and parallel lines.

● **Transversal:** It is defined as a line that passes through two or more lines in the same plane at two or more distinct points.

● **Parallel lines:** The lines which are in the same plane and do not intersect each other as far as they are extended, called parallel lines.

34. Option (4) is correct.

Explanation: Motivating the learners is an important aspect of teaching. It develops self confidence and a positive outlook for an approach within learners. They become more focused and explore new concepts by using their existing capabilities and previous knowledge.

35. Option (2) is correct.

Explanation: CCE follows three types of assessment - diagnostic, formative and summative. The diagnostic assessment is a pre-test based on previous knowledge of learners to check their strengths, weaknesses and knowledge about the topic. Formative assessment is an evaluation pattern used by teachers to find gaps in learning, involvement of students while teaching-learning process, to check how much they have understood the concept and to find remedial methods of teaching if requires. Summative assessment is conducted at the end of the unit or academic year to check students' performance, proficiency and

knowledge. It gives feedback on their overall learning.

36. **Option (4) is correct.**
Explanation: A concept map is a figure which shows the relationship between concepts and information. It can use circle, box, oval, flowchart, tables, venn diagrams etc. to show how two topics are related. Since, it is a visual representation of information students understand this easily.

37. **Option (3) is correct.**
Explanation: Mathematics is based on both inductive and deductive reasoning. Inductive reasoning is a way to find a solution by combining all information, rules and relationships related to the topic. In this method specific observations or patterns are used to make a general conclusion. Deductive reasoning is a method of finding a solution based on facts, logic and information. In this approach, general ideas are combined to derive a specific conclusion. It enables students to think logically. In mathematics, we use both types of reasoning.

38. **Option (4) is correct.**
Explanation: Argumentation in a mathematics classroom is a way of discussion among students to get more information about the given topic. Students have freedom to inquire about the problem, give their opinions and justify the solution or answer. It is more useful for higher grade students.

39. **Option (4) is correct.**
Explanation: Conjecture is a proposition or conclusion that is assumed to be true on a tentative basis without proof. Although it is true for many cases but not necessarily true for all cases.

40. **Option (1) is correct.**
Explanation: A mathematics textbook should not have only solved examples as it hinders the thinking and reasoning abilities of the students. Examples in a mathematics textbook should be related to the daily life of the students so that they can understand the concept easily. A textbook should not be heavy and thick. A mathematics textbook should have varied exercises to give practice to students so that they can learn and explore how a concept is used to solve different types of problems. It develops their critical thinking, reasoning abilities and problem-solving skills.

41. **Option (1) is correct.**
Explanation: Given,
$$x = \sqrt{198} \times \sqrt{550}$$
and $$y = \sqrt[3]{99} \times \sqrt[3]{363}$$
Now, $$x = \sqrt{198} \times \sqrt{550}$$

Or, $$x = 14.071 \times 23.452$$
$$x = 329.99$$
Similarly, $$y = \sqrt[3]{99} \times \sqrt[3]{363}$$
Or, $$y = 4.626 \times 7.133$$
So, $$y = 32.997$$
According to question,
$$\frac{1}{x} + \frac{1}{y} = \frac{1}{329.99} + \frac{1}{32.997}$$

Or, $$\frac{1}{x} + \frac{1}{y} = 0.00303 + 0.03030$$

So, $$\frac{1}{x} + \frac{1}{y} = 0.03333$$

The value of $\frac{1}{x} + \frac{1}{y} = 0.0\overline{3}$.

42. **Option (2) is correct.**
Explanation:
Given, $$p = (12.34 \times 10^{10})$$
$$- (5.67 \times 10^9)$$
Or, $$p = 10^9 (123.4 - 5.67)$$
Or, $$p = 117.73 \times 10^9$$
So, $$p = 1.1773 \times 10^{11}$$
So, p is expressed in standard form as 1.1773×10^{11}.

43. **Option (1) is correct.**
Explanation:
Given,
$$313632 = p^2 \times q^5 \times r^4$$
To find, $(p + q - 2r)$
Now,
$$313632 = 11^2 \times 2^5 \times 3^4$$
According to question,
$$(p + q - 2r) = 11 + 2 - 2 \times 3$$
$$(p + q - 2r) = 13 - 6$$
$$(p + q - 2r) = 7$$

44. **Option (2) is correct.**
Explanation: Let the number which should be multiplied be x.
According to question,
$$\left(\frac{-1}{4}\right)^{-1} \times x = \left(\frac{-7}{4}\right)$$

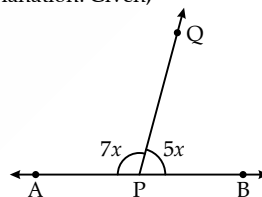Or, $$(-4) \times x = \left(\frac{-7}{4}\right)$$

Or, $$x = \frac{(-7)}{4 \times (-4)}$$

So, $$x = \frac{7}{16}$$

The number which should be multiplied is $\frac{7}{16}$.

45. **Option (1) is correct.**
Explanation: Given,

$$\angle QPA = 7x$$
$$\angle QPB = 5x$$
Concept: A line always makes an angle of 180°.

So, $$\angle QPA + \angle QPB = 180°$$
$$7x + 5x = 180°$$
Or, $$12x = 180°$$
Or, $$x = \frac{180°}{12}$$
So, $$x = 15°$$
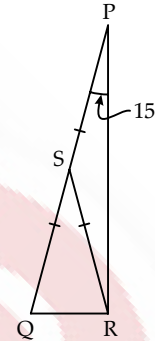To find, $(8x - 10°)$
Putting value of x in $(8x - 10°)$
$$= (8 \times 15° - 10°)$$
$$= 120° - 10°$$
$$= 110°$$
So, the value of $(8x - 10°)$ is 110°.

46. **Option (1) is correct.**
Explanation:

Given, In Δ PQR,
$$RS = PS = QS$$
$$\angle QPR = 15°$$
$$\angle PRS = 15°$$
              (Since, PS = RS)
in ΔPRS,
$$\angle QPR + \angle PRS + \angle RSP = 180°$$
(Sum of all the angles in a triangle is 180°.)
Or,
$$15° + 15° + \angle RSP = 180°$$
Or, $$\angle RSP = 180° - 30°$$
So, $$\angle RSP = 150°$$
Now, In ΔQRS,
$$QR = RS \quad \text{(given)}$$
So, $$\angle SQR = \angle QRS$$
$$\angle RSP = \angle SQR$$
$$\qquad\qquad + \angle QRS$$
(Exterior angle of a triangle is equal to the sum of the opposite two interior angles)
Or, $$150° = 2\angle SQR$$
Or, $$\angle SQR = \frac{150°}{2}$$
So, $$\angle SQR = 75°$$
and $$\angle QRS = 75°$$
Again, in Δ QRS,
$$\angle QRS + \angle SQR + \angle QSR = 180°$$
(Sum of all the three angles in a triangle is 180°)
Or,
$$75° + 75° + \angle QSR = 180°$$
Or, $$150° + \angle QSR = 180°$$
Or, $$\angle QSR = 180° - 150°$$
So, $$\angle QSR = 30°$$
To find, value of $2\angle PQR - \angle PRQ$
$$2\angle PQR - \angle PRQ = 2 \times 75° - 90°$$
$$= 150° - 90°$$
$$= 60°$$
The value of $(2\angle PQR - \angle PRQ)$ is 60°.

47. **Option (2) is correct.**
Explanation: Given,
Case-1
Selling price of item $= ₹ 384$
Loss$\% = 20\%$
Cost price $= ?$
Using formula,

$$CP = \frac{SP \times 100}{100 - loss\%}$$

$$= \frac{384 \times 100}{100 - 20}$$

$$= \frac{38400}{80}$$

$$= ₹480$$

Case-2
Selling price of item $= ₹400$
Profit $\% = 25\%$
Cost price $= ?$
Using formula,

$$CP = \frac{SP \times 100}{100 + profit\%}$$

$$= \frac{400 \times 100}{100 + 25}$$

$$= \frac{40000}{125}$$

$$= ₹320$$

Now, Total cost price of both items
$= CP1 + CP2$
$= ₹480 + ₹320$
$= ₹800$
According to question,
Selling price of both items
$= ₹852$
Cost price of both items
$= ₹ 800$
Since, selling price is more than the cost price of both items profit will be there.

$$Profit = SP - CP$$
$$= 852 - 800$$
$$= ₹52$$

Using formula,

$$Profit \% = \left(\frac{Profit}{CP}\right) \times 100$$

$$= \left(\frac{52}{800}\right) \times 100$$

$$= 0.065 \times 100$$

$$= 6.5\%$$

So, The shopkeeper gets profit of 6.5% by selling both items at ₹852.

48. **Option (2) is correct.**
Explanation:
Principal (P) $= ₹12,000$
Amount (A) $= ₹15,972$
Rate $= R\%$
Time $= 1\frac{1}{2}$ years

Case-I: Compounded half-yearly
So, $n = 3$

$$\therefore \quad A = P\left(1 + \frac{R}{200}\right)^2$$

$$15,472 = 12000\left[1 + \frac{R}{200}\right]^3$$

$$\frac{15972}{12000} = \left[1 + \frac{R}{200}\right]^3$$

$$\Rightarrow \quad (1.331) = \left[1 + \frac{R}{200}\right]^2$$

$$\Rightarrow \quad 1 + \frac{R}{200} = 1.1$$

$$\Rightarrow \quad \frac{R}{200} = 0.1$$

$$\Rightarrow \quad R = 20\%$$

Case-II:

$$A = 12000\left[1 + \frac{20}{100}\right]\left[1 + \frac{20}{200}\right]$$

$$= 12000 \times \frac{120}{100} \times \frac{110}{100}$$

$$= ₹15,840$$

49. **Option (3) is correct.**
Explanation:
$$5x^2 - 8y - 20x + 2xy$$
$$= (x + a)(bx + 2y)$$
Or, $5x^2 - 20x - 8y + 2xy$
$$= (x + a)(bx + 2y)$$
Or, $5x(x - 4) - 2y(4 - x)$
$$= (x + a)(bx + 2y)$$
Or, $5x(x - 4) + 2y(x - 4)$
$$= (x + a)(bx + 2y)$$
Or, $(x - 4)(5x + 2y)$
$$= (x + a)(bx + 2y)$$
Comparing the similar terms,
$$a = -4$$
$$b = 5$$
Now, putting the value of a and b in expression
$$(a - b) = (-4 - 5)$$
$$= -9.$$
The value of $(a - b)$ is -9.

50. **Option (4) is correct.**
Explanation:
Given, $A = x^2(1 - 3y^2)$
$B = x(xy^2 - 2x)$
$C = 3y(y - 4x^2y)$
$A + B - C = px^2 + qx^2y^2 + ry^2$
To find: $(5p + q - r)$
Solution:
$A + B - C = px^2 + qx^2y^2 + ry^2$
$x^2(1 - 3y^2) + x(xy^2 - 2x) - 3y(y - 4x^2y)$
$= px^2 + qx^2y^2 + ry^2$
Or, $x^2 - 3x^2y^2 + x^2y^2 - 2x^2 - 3y^2 + 12x^2y^2$
$= px^2 + qx^2y^2 + ry^2$
Or, $x^2 - 2x^2 - 3x^2y^2 + x^2y^2 + 12x^2y^2 - 3y^2$
$= px^2 + qx^2y^2 + ry^2$
Or, $-x^2 + 10x^2y^2 - 3y^2$
$= px^2 + qx^2y^2 + ry^2$
Comparing the similar terms to find value of p, q and r
$$p = -1$$
$$q = 10$$
$$r = -3$$
Putting the value of p, q and r in expression,
$(5p + q - r) = 5 \times (-1) + 10 - (-3)$
$$= -5 + 10 + 3$$
$$= -5 + 13$$
$$= 8$$
So, the value of $(5p + q - r)$ is 8.

51. **Option (3) is correct.**
Explanation: Divisibility rule of 2- When the last digit of the number is 0,2,4,6 and 8, the number is divisible by 2.
Divisibility rule of 3, When the sum of all digits in a number is divisible by 3, the number is divisible by 3.
Divisibility rule of 11, When the difference of the sum of digits at odd places and sum of digits at even places is either 0 or divisible by 11, the number is divisible by 11.
8448 and 9636 are divisible by 2,3 and 11 as they follow the divisibility rule.

52. **Option (3) is correct.**
Explanation:

$$\frac{(x + 1) - (2x + 4)}{3 - 5x} = \frac{1}{23}$$

Or, $$\frac{x + 1 - 2x - 4}{3 - 5x} = \frac{1}{23}$$

Or, $$\frac{-x - 3}{3 - 5x} = \frac{1}{23}$$

Or, $23(-x - 3) = 3 - 5x$
Or, $-23x - 69 = 3 - 5x$
Or, $-23x + 5x = 3 + 69$
Or, $-18x = 72$

Or, $$x = \frac{-72}{18}$$

So, $x = -4$
Now, putting the value of x in option (3)
$$3(2x + 3) = 5(x + 1)$$
$$6x + 9 = 5x + 5$$
$$6 \times (-4) + 9 = 5 \times (-4) + 5$$
$$-24 + 9 = -20 + 5$$
$$-15 = -15$$
$$LHS = RHS$$
So, this option is correct.

53. **Option (3) is correct.**
Explanation:
Formula used:
Sector angle

$$= \frac{\text{value of the component}}{\begin{array}{c}\text{sum of all the values}\\ \text{of components}\end{array}} \times 360°$$

Sum of all marks obtained in different subjects
$$= 72 + 84 + 96 + 80 + 68$$
$$= 400$$
Total angle of a pie diagram
$$= 360°$$
Marks obtained in Mathematics
$$= 96$$
Using formula,
Angle of sector

$$= \frac{\begin{array}{c}\text{Marks obtained in}\\ \text{Mathematics}\end{array}}{\begin{array}{c}\text{Sum of all marks obtained}\\ \text{in different subjects}\end{array}} \times 360°$$

$$= \frac{96}{400} \times 360°$$

$$= 0.24 \times 360°$$

$$= 86.4°$$

Angle of the sector representing marks obtained by Sunita in Mathematics is 86.4°.

54. Option (2) is correct.
Explanation:
Given,
Volume of right circular cylinder
$$= 4620 \text{cm}^3$$
$$\text{Height} = 1.2 \text{ m}$$
$$= 1.2 \times 100.$$
(Since, 1m = 100 cm)
$$= 120.0$$
$$= 120 \text{ cm}$$
Using formula,
Volume of right circular cylinder
$$= \pi r^2 h$$
$$4620 = \frac{22}{7} \times r^2 \times 120$$
Or, $$r^2 = \frac{4620 \times 7}{22 \times 120}$$
Or, $$r^2 = \frac{32340}{2640}$$
Or, $$r^2 = 12.25$$
Or, $$r = \sqrt{12.25}$$
So, $$r = 3.5 \text{ cm}$$
Now, curved surface area of right circular cylinder
$$= 2\pi rh$$
$$= 2 \times \frac{22}{7} \times 3.5 \times 120$$
$$= 2 \times 22 \times 0.5 \times 120$$
$$= 2640$$
$$= 2640 \text{ cm}^3$$
So, the curved surface area of the right circular cylinder = 2640 cm³.

55. Option (1) is correct.
Explanation: In a triangular prism,
Number of faces = 5
Number of vertices = 6
Number of Edges = 9
Putting the value of F, V and E in option (1)
$$2F + 3V - 2E = 10$$
$$2 \times 5 + 3 \times 6 - 2 \times 9 = 10$$
$$10 + 18 - 18 = 10$$
$$10 = 10$$
Since, LHS = RHS option (1) is correct.

56. Option (2) is correct.
Explanation: Arranging the data in ascending order
7, 8, 9, 10, 11, 11, 13, 14, 15, 16, 17, 23
To find, Mean of median, mode and range.
Median—Median is the mid value of the data when it is arranged in either ascending or descending order.
Here, number of observation (n) = 12
Using formula,
Median for even n
$$= \left\{ \left(\frac{n}{2} \right)^{th} \text{term} + \frac{\left(\frac{n}{2} + 1 \right)^{th}}{2} \text{term} \right\}$$
Median
$$= \left\{ \left(\frac{12}{2} \right)^{th} \text{term} + \frac{\left(\frac{12}{2} + 1 \right)^{th}}{2} \right\} \text{term}$$
Or, Median

$$= \frac{\text{6th term} + \text{7th term}}{2}$$
Or, Median $$= \frac{11 + 13}{2}$$
Or, Median $$= \frac{24}{2}$$
So, Median = 12
Hence, the median is 12.
Mode—The most repeated value in the data is mode.
Here, 11 is repeated twice. So, mode is 11.
Range—It is the difference of highest value and lowest value in a data.
$$\text{Range} = 23 - 7 = 16$$
Now, Mean $$= \frac{12 + 11 + 16}{3}$$
Mean $$= \frac{39}{3}$$
Mean = 13
Mean of median, mode and range is 13.

57. Option (1) is correct.
Explanation:
Given, Dimensions of solid cuboid
$$= 40 \text{ cm} \times 36 \text{ cm} \times x \text{ cm}$$
The cost of painting is
₹ 20 per 100 cm² = ₹1032
Length of solid cuboid = 40 cm
Breadth of solid cuboid = 36 cm
Height of solid cuboid = x cm
Using formula,
Total surface area of the solid cuboid
$$= 2(lb + bh + lh)$$
$$= 2(40 \times 36 + 36x + 40x)$$
$$= 2(1440 + 76x)$$
$$= 2880 + 152x$$
Now, cost of painting solid cuboid per 100 cm² = ₹20
So, cost of painting solid cuboid per cm²
$$= ₹\frac{20}{100}$$
$$= ₹\frac{1}{5}$$
So, cost of painting solid cuboid per $(2880 + 152x)$ cm²
$$= \frac{1}{5}(2880 + 152x)$$
According to question,
$$\frac{1}{5}(2880 + 152x) = 1032$$
Or, $$2880 + 152x = 1032 \times 5$$
Or, $$2880 + 152x = 5160$$
Or, $$152x = 5160 - 2880$$
Or, $$152x = 2280$$
Or, $$x = \frac{2280}{152}$$
So, $$x = 15$$
Hence, the value of x is 15 cm.

58. Option (1) is correct.
Explanation:
Given,
Length of rectangle = 176 cm

Breadth of rectangle = 56 cm
Formula used:
Area of rectangle = length × breadth
Area of circle = πr^2
Circumference of circle = $2\pi r$
According to question,
Area of rectangle = Area of circle
length × breadth = πr^2
$$176 \times 56 = \frac{22}{7} \times r^2$$
Or, $$r^2 = \frac{176 \times 56 \times 7}{22}$$
Or, $$r^2 = 3136$$
Or, $$r = \sqrt{3136}$$
So, $$r = 56$$
radius of the circle = 56 cm.
Now,
circumference of the circle
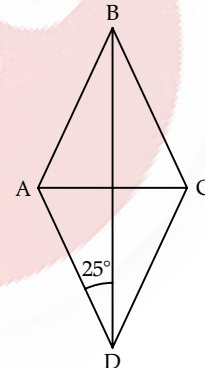$$= 2\pi r$$
$$= 2 \times \frac{22}{7} \times 56$$
$$= 2 \times 22 \times 8$$
$$= 352 \text{ cm}.$$
So, the circumference of the circle is 352 cm.

59. Option (3) is correct.
Explanation:

Given, ABCD is a rhombus.
$$\angle ADB = 25°$$
To find: 2∠BAD − ∠ABC
Solution:
In a rhombus, all sides are equal.
So, AB = BC = CD = AD
Since, AD = AB
$$\angle ADB = \angle ABD = 25°$$
Now, in ΔABD,
$$\angle BAD + \angle ADB + \angle ABD = 180°$$
(angle sum property of triangle)
Or $$\angle BAD + 25° + 25° = 180°$$
Or, $$\angle BAD = 180° - 50°$$
So, $$\angle BAD = 130°$$
Since, $$\angle ADB = \angle DBC$$
(Alternate angles)
$$\angle DBC = 25°$$
Next, $$\angle ABC = \angle ADB + \angle DBC$$
$$\angle ABC = 25° + 25°$$
$$\angle ABC = 50°$$
Now, Putting the values in given expression,
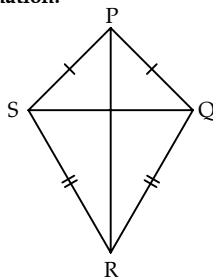$$(2\angle BAD - \angle ABC) = 2 \times 130° - 50°$$
$$= 260° - 50°$$
$$= 210°$$
So, the value of (2∠BAD − ∠ABC) is 210°.

60. Option (1) is correct.
Explanation:

Given, PQ = PS and RQ = RS
Here, adjacent sides of quadrilateral PQRS are equal. So, quadrilateral PQRS is a kite.
In a kite, its diagonals are perpendicular to each other.

61. Option (2) is correct.
Explanation: Clayey soil is more fertile than loamy soil. Water retention capacity of clayey soil is better than that of loamy soil. Since, the particle size of clayey soil is much smaller than that of loamy soil the clayey soil is less aerated than loamy soil.

62. Option (2) is correct.
Explanation: The rubbing surface of the matchbox contains glass powder and red phosphorus. Glass powder makes the surface rough and gives rise to friction and heat. Because of this, red phosphorus gets converted into white phosphorus. White phosphorus is volatile in nature and catches fire.

63. Option (1) is correct.
Explanation: Pituitary gland is known as master gland. Thyroid gland secretes thyroxine hormone and adrenal gland secretes adrenaline hormone when they receive order from pituitary gland.

64. Option (1) is correct.
Explanation: The image formed by a pinhole camera is real. It offers a suitable explanation for the fact that the light travels in a straight line. This is known as rectilinear light theory. If the light doesn't travel in a straight line, the image can not be real as it can't be formed on screen.

65. Option (1) is correct.
Explanation: When both male and female reproductive organs are present in the same flower, the flower is called bisexual flower.
Mustard, Rose and Petunia are examples of bisexual flowers. On the other hand, corn, cucumber and Papaya are examples of unisexual flowers.

66. Option (4) is correct.
Explanation: Stomach produces hydrochloric acid that helps in breaking down food. It also kills harmful microorganisms. Digestive juices need an acidic medium to act. Hydrochloric acid converts inactive pepsinogen into active pepsin. Pepsin is an enzyme which helps in digestion of proteins in the stomach.

67. Option (4) is correct.
Explanation: Nitrogen fixation means conversion of atmospheric nitrogen to a more usable form for living organisms. It is a biological process where atmospheric nitrogen gets converted into ammonia by natural phenomenon or certain bacteria like Rhizobium, Azotobacter etc.

68. Option (3) is correct.
Explanation: Cold-blooded animals: Animals that can't maintain a constant body temperature are cold-blooded animals. They can change their body temperature with the change in temperature of the environment.
Examples—Snake, Frog and Cockroach.
Warm-blooded animals—Animals that can maintain a constant body temperature are called warm-blooded animals.
Examples - Human, Dolphin, Whale

69. Option (2) is correct.
Explanation: A spring has the least potential energy when the spring is neither compressed nor pulled out and is lying on the ground.
Potential energy of the spring

$$= \frac{1}{2}kx^2$$

where, k = spring constant
x = compression or exten- sion of the spring
Potential energy is dependent on compression and extension of the spring. When the spring will be at its natural position i.e. neither compressed nor extended, the potential energy will be minimum.

70. Option (1) is correct.
Explanation: kg m²/s² and Ws are derived units of work.
kg m²/s² is the derived unit of energy and work while Nm is the SI unit of work.
kg m/s² is the derived unit of force while Ws is the derived unit of work.
kg m²/s² is the derived unit of energy while Js is the SI unit of angular momentum.

71. Option (2) is correct.
Explanation: A feather of mass 15 g is dropped from a height and is found to fall with constant velocity. There is no acceleration.
Formula used - Force = mass × acceleration
Since, acceleration is zero the net force acting on the feather is zero.

72. Option (1) is correct.
Explanation:

Column A		Column B	
(a)	Plastic bottles	(v)	Several years
(b)	Silk scarf	(iv)	4 years
(c)	Cotton shirt	(i)	2-5 months
(d)	Banana peel	(ii)	1-2 weeks
(e)	Paper	(iii)	10-30 days

73. Option (2) is correct.
Explanation: All cells have cell membranes. All cells are not microscopic. Some cells like egg cells can be seen with unaided eyes. Cell walls are absent in animal cells. Nuclear membrane bound structures are absent in prokaryotes.

74. Option (4) is correct.
Explanation: An ion X^{3+} is obtained from an element X whose atomic number is 13 and atomic mass 27 respectively.
Atomic number refers to the number of protons present in the nucleus of an element.
Number of protons in given element = 13
In an element, number of protons = number of electrons. An ion X^{3+} is obtained from the element means it has donated 3 electrons. So, the number of electrons = 13 – 3 = 10.
Number of neutrons = Atomic mass – atomic number
Number of neutrons = 27 – 13 = 14
So,
number of protons in given ion =13,
number of electrons =10
and number of neutrons = 14.

75. Option (3) is correct.
Explanation: Electric current is a vector quantity. This is a false statement as it doesn't follow the vector law of addition. So, electric current is a scalar quantity.
Electric current is a quantity having magnitude as well as direction. This is a true statement.
So, the assertion is false and the reason is true.

76. Option (2) is correct.
Explanation: As density of liquid A is least, so if an object floats in A, it will surely float in other three liquids as their density is more.
But if an object floats in heavier liquid, it may or may not float in liquid with less density.

77. Option (3) is correct.
Explanation: Plastids, Mitochondria and Nucleus are cell organelles containing their own DNA. DNA is the molecule which carries genetic information from one generation to another generation of the organism.

78. Option (1) is correct.
Explanation: During fertilisation, the sperm cell from the father and the egg cell from the mother fuse to form zygote which divides repeatedly to give rise to a ball of cells. The cells begin to develop into different organs and tissues. This developing structure is called embryo that gets embedded in the wall of uterus. The stage of embryo in which all body parts can be identified is called foetus.

79. **Option (4) is correct.**
Explanation: Distance-time graph of a body at rest and velocity-time graph of a body at rest are straight lines.

80. **Option (3) is correct.**
Explanation: $Zn + CaSO_4 \longrightarrow$ This reaction is not feasible. Zinc can't replace Calcium from its salt because Zinc is less reactive than Calcium.

81. **Option (1) is correct.**
Explanation: The activities suggested as part of 'Extended learning' in textbooks do not form an important basis of students' evaluation. Activity based learning helps in improving concentration in students. Here, they learn by doing things themselves. So, it also improves their memory. It keeps them engaged and motivates them to explore new things and ideas.

82. **Option (1) is correct.**
Explanation: Content must be upto date and accurate. It must not be trivialised in any case.

83. **Option (1) is correct.**
Explanation: The teacher is emphasising in estimating skill in this case. Estimation is a cognitive skill. In this process skill, data or information is given. Students have to analyse the information to derive conclusions. It requires skills like good observation, critical and logical thinking.

84. **Option (3) is correct.**
Explanation: Those questions which cannot have a fixed answer or can't be answered in 'yes' or 'no' are called open ended questions. Such questions can be answered in many ways. Learners can explain, elaborate and justify their answers by giving examples.

85. **Option (3) is correct.**
Explanation: A valid reason for including socio-scientific issue (such as GM food) in the school science curricula is helpful in cultivating understanding about the nature of science. It develops scientific argumentation. It is also helpful in appreciating science as a definitive discipline. But it never develops the capacity to engage in evidence - based learning.

86. **Option (2) is correct.**
Explanation: According to curricular practice which is currently being followed in schools:
(i) Physics, Chemistry and Biology are being taught integratedly as 'Science' in secondary classes.
(ii) Science and Social science are being taught integratedly as 'EVS' in primary classes.

87. **Option (3) is correct.**
Explanation: The boiling point of pure water is 100°C. Tap water consists of impurities and minerals. So, the boiling point of ordinary tap water is more than 100° C.

88. **Option (1) is correct.**
Explanation: Students are asked to play with shiny, steel spoons and observe their images in it. Shiny, steel spoons are good examples of spherical mirrors. There are two types of spherical mirror - Concave mirror and Convex mirror. The front side of the shiny, steel spoon is a concave mirror as it is projected inwards. The backside of a shiny, steel spoon is a convex mirror as it is bulged outwards.

89. **Option (4) is correct.**
Explanation: Science classroom practices should be developmentally appropriate. This is not implied by the statement " Good science education is true to the child, true to life and his/ her environment. The aim of developmentally appropriate practice is to focus on every child's optimal development towards educational and developmental goals.

90. **Option (1) is correct.**
Explanation: The most suitable rationale for team teaching is it benefits the students with diverse expertise. It enables them to learn team management. Their active participation leads to development of interpersonal skills.

Language: English

91. **Option (2) is correct.**
Explanation: The poem mentions that roses are red and delicious, whereas lilies are white and lovely. The quality that is not attributed to Lily is the colour, which is red.

92. **Option (2) is correct.**
Explanation: In the context of the extract, the assertion that poets did not declare the lily as the queen of flowers is true, as the passage mentions that the lily and the rose were rivals for that high honor, and the poem's tone is one of competition rather than declaration. The reason given, that the lily was pale colored, is not the only reason for this rivalry, as the passage also discusses the dispute between the two flowers based on their beauty and other attributes, making the rivalry multifaceted. Therefore, option (2) is the correct choice.

93. **Option (4) is correct.**
Explanation: There is a contest between the rose and the lily for becoming queen of the flowers. Thus, the garden was echoed by the sound of their supporters.

94. **Option (3) is correct.**
Explanation: The correct rhyming scheme is "abba".

95. **Option (1) is correct.**
Explanation: The poetic device used in the first line is personification. Personification is attributing human quality to non-living entities. Example: She sat down at the tired, overworked desk. And the poetic device used in the line 10 is simile. Simile is a figure of speech involving the comparison of one thing with another thing of a different kind with the help of words: like, as, etc., used to make a description more emphatic or vivid (e.g. as brave as a lion).

96. **Option (2) is correct.**
Explanation: The relationship between "delicious" and "inviting" is that something that is delicious often attracts or invites people because of its appealing taste. Similarly, "strife" often leads to "conflict" because strife implies disagreements, disputes, or conflicts among individuals or groups.

97. **Option (1) is correct.**
Explanation: The statement "A" is incorrect because the passage asserts that determined people are always successful, whereas the statement says they occasionally get success. The statement "B" is also incorrect because the passage asserts that a majority of people think their dream job is hard to achieve, but the statement suggests few people believe the same. The statement "C" is correct as per the passage.

98. **Option (3) is correct.**
Explanation: From the paragraph 2, we can easily understand that the needs of employer and economy is changing at fast pace thus it is difficult to predict the needs of a society.

99. **Option (4) is correct.**
Explanation: A job seeker who likes challenges should keep his head down. This means he should confront challenging situations. The passage suggests that keeping one's head down and going for it, even when facing challenging situations, is the way to succeed.

100. **Option (2) is correct.**
Explanation: The passage suggests that a job seeker should not feel downhearted by rejection. This statement is just the opposite of the statement made in option (2). Thus, the author has not suggested that the job seekers be dejected by their rejection.

101. **Option (2) is correct.**
Explanation: In the given sentence, "majority" is the subject of the given sentence. Hence, it is a noun. Adjectives describe or modify—that is, they limit or restrict the meaning of—nouns and pronouns. They may name qualities of all kinds: huge, red, angry, etc. In the given sentence, the word "hard" gives additional information about 'job'. Thus, 'hard' is an adjective.

102. **Option (1) is correct.**
Explanation: 'Feel limited' is a correct and usable phrase in written English. It is typically used to express the feeling of being confined by certain conditions or circumstances. Hence, the correct answer is to feel constrained.

103. **Option (3) is correct.**
Explanation: As per the passage, the assertion is incorrect, and the reason is correct.

104. Option (2) is correct.
Explanation: Learning to trade from the bottom up means going from the lowest level to the highest level.

105. Option (4) is correct.
Explanation: Analogy is drawing similarity. Expected and unexpected are antonyms. Similarly, rejection is the opposite of selection.

106. Option (4) is correct.
Explanation: Critical thinking is the ability to think clearly and rationally, understanding the logical connection between ideas. It involves the ability to analyze information, evaluate arguments, and make sound judgments.
Reading and writing skills are essential for critical thinking, but critical thinking is not a sub-skill of reading and writing. Reading and writing skills help us to develop critical thinking skills by exposing us to new ideas, helping us to identify the main ideas of a text, and requiring us to organize our thoughts and communicate them clearly.

107. Option (3) is correct.
Explanation: Immersion is arguably the most effective way to learn a language. You should surround yourself with the language and listen to it as much as you can. Thus, the best way to learn a language is to learn it in an integrated manner.

108. Option (2) is correct.
Explanation: A narrative skill is the ability to tell or comprehend stories in an organised and engaging way. It is a complex and important part of communication, academic success, and healthy relationships. To assess a student's narrative skill, a teacher will check whether a student is able to narrate a story or incident or not. Thus, it can be assessed by asking the student about the incident when they were surprised.

109. Option (3) is correct.
Explanation: Shared reading is an instructional approach in which the teacher explicitly models the strategies and skills of proficient readers. Guided reading is an instructional approach that involves a teacher working with a small group of students who demonstrate similar reading behaviours and can all read similar levels of texts. Intensive reading involves learners reading in detail with specific learning aims and tasks. It can be compared with extensive reading, which involves learners reading texts for enjoyment and to develop general reading skills. Since the teacher is promoting books other than prescribed books, she is promoting extensive reading.

110. Option (4) is correct.
Explanation: Conceptual complexity and density of material, is not relevant to the language teacher when selecting textbooks and other resources for the new session. Conceptual complexity and density of material is a factor that is more relevant to selecting textbooks and other resources for academic subjects such as science and mathematics.

111. Option (3) is correct.
Explanation: The quality of material can be monitored by observing its usage and repetition.

112. Option (2) is correct.
Explanation: The activity of watching a movie will encourage a student's listening strategy along with active viewing. It will also increase the student's understanding of a particular language.

113. Option (1) is correct.
Explanation: It is true that children in their early childhood stage use more verbs than nouns and ignore grammar rules. This is because verbs are more action-oriented and easier for young children to understand and produce. Additionally, children are still developing their language skills and have not yet fully mastered grammar rules.
However, the reason for this is not simply that children lack a wide vocabulary range. It is also due to the fact that children are still learning about the world around them and developing their cognitive skills. Verbs are a good way for children to communicate their thoughts and experiences, even if they do not have a large vocabulary of nouns.

114. Option (2) is correct.
Explanation: The correct answer is I remember language well when I move.
The child's comment shows that she enjoys learning by doing. The activity of covering her eyes and picking an object out of a bag to describe it is a kinesthetic learning activity. Kinesthetic learning is a type of learning that involves the use of movement to learn. It is a very effective way to learn, especially for young children.

115. Option (2) is correct.
Explanation: If one doesn't know anything about something and looks for it, one is referring to the reference material.

116. Option (4) is correct.
Explanation: A diagnostic test is a form of pre-assessment that allows a teacher to determine students' individual strengths, weaknesses, knowledge, and skills prior to instruction.

117. Option (2) is correct.
Explanation: A proficiency test is a method used to measure an individual's abilities and skills in a domain or subject. It is used to assess how well someone has learned, understood, and internalized the related concepts and principles. For example, a language proficiency test may assess a student's skills in reading, writing, listening, speaking, or vocabulary.

118. Option (2) is correct.
Explanation: Since the teacher asked students to take a quiz before reading the story, she probably wants to create interest among students related to the topic.

119. Option (2) is correct.
Explanation: If a student in the language class is talking and disrupting the studies of the other students, the first step a teacher should take is to talk to the children and offer remedies. If the situation is not controlled after this as well, then only a teacher should approach the principal and then the parents.

120. Option (3) is correct.
Explanation: Students need to brainstorm ideas, organise, draft, edit, and revise their work, which is a process' that reflects writing skills.

Language: Hindi

121. विकल्प (2) उचित है।
व्याख्या—दिए गए पद्यांश के अनुसार अपने स्वप्नों को पूर्ण करने के लिए निष्ठा और इच्छाशक्ति का होना आवश्यक है। व्यक्ति में यदि अपने लक्ष्य के प्रति समर्पण न हो और अपने सपनों को पूरा करने की असीम चाह नहीं हो तो स्थितियाँ कितनी भी अनुकूल क्यों न हों वह अपने लक्ष्य को नहीं पा सकता।

122. विकल्प (3) उचित है।
व्याख्या—दिए गए पद्यांश के अनुसार जीवन में सुख-दु:ख और आशा-निराशा की स्थिति सदैव बनी रहती है। लेकिन जिस तरह काली अँधेरी रात के बाद एक उजली सुबह का आना निश्चित होता है उसी तरह सुख-दु:ख और आशा-निराशा पहिये के समान घूमते हुए एक दूसरे के बाद आते ही रहते हैं। जीवन के आशा निराशा की स्थिति मनुष्य को विषम परिस्थिति में सशक्त बनाती है।

123. विकल्प (2) उचित है।
व्याख्या—सहर अरबी भाषा का शब्द है जिसका अर्थ है सुबह। सूरज के निकलने के समय को सहर कहते हैं।

124. विकल्प (3) उचित है।
व्याख्या—जब व्यक्ति बाधाओं से घबराकर हारने लगता है और परिस्थितियों के सामने घुटने टेकने लगता है तब उसे निराशा के अंधेरे से निकलने के लिए आशा की एक किरण की तलाश होती है। अँधेरी रात के बाद उजली सुबह की आशा व्यक्ति का मनोबल बढ़ाती है।

125. विकल्प (1) उचित है।
व्याख्या—'सागर में उतर' वाक्यांश से कवि ने बार बार कश्ती उठा कर सागर में उतरने की बात पर बल दिया है। यह व्यक्ति को अपने लक्ष्य के प्रति समर्पित रहने का संदेश देता है, यही इस कविता का मुख्य स्वर है।

126. विकल्प (3) उचित है।
व्याख्या—फिक्र अरबी भाषा का शब्द है जिसका अर्थ है किसी बात की चिंता।

127. विकल्प (2) उचित है।
व्याख्या—गद्यांश में वर्णित इस दौर के लोग से नौ-दस हजार पूर्व के लोगों की बात जरूर की

गई है लेकिन प्रश्न का सटीक सन्दर्भ उस दौर के लोगों की बुद्धिमत्ता से है। विकल्प 3 उस दौर के बौद्धिक दृष्टिकोण खोजने की नहीं आएगा। वाले धनी लोगों की बात करने के कारण बिलकुल सटीक उत्तर है।

128. विकल्प (2) उचित है।
व्याख्या—वास्तव में भक्ति योग के मार्ग को मजबूत करने में कर्मयोग और ज्ञानयोग का बहुत बड़ा योगदान है लेकिन मनुष्य का लक्ष्य सापेक्ष दुनिया में जाकर वास्तविक प्रगति को पाना है जिसका एकमात्र मार्ग भक्ति योग है।
जब मनुष्य ने यह महसूस किया कि कर्म योग और ज्ञान योग से उसे वास्तविक प्रगति नहीं प्राप्त हो सकती तो उसने भक्ति योग को अपनाया।

129. विकल्प (4) उचित है।
व्याख्या—अतीत में जब मनुष्य ने यह महसूस किया कि कर्म योग और ज्ञान योग से उसे वास्तविक प्रगति नहीं प्राप्त हो सकती तो उसने भक्ति योग को अपनाया। लेकिन वर्तमान में कर्म और ज्ञान के सहारे ही वह विकसित हो पाया है। इसलिए कर्म और ज्ञान योग ही भक्ति योग के मार्ग को सशक्त करने में सहायक हैं।

130. विकल्प (3) उचित है।
व्याख्या—मनुष्य पुरातन काल से ही आध्यात्मिकता की खोज में भटक रहा है। इसे प्राप्त करना उसके जीवन का सर्वोपरि लक्ष्य रहा है इसकी खोज में ही उसने अतीत में भी भक्ति योग को कर्म और ज्ञान योग के ऊपर स्थान दिया था।

131. विकल्प (2) उचित है।
व्याख्या—मानव जीवन के लिए एकमात्र मार्ग भक्ति का है जिससे संसार के निरपेक्ष के साथ साथ सापेक्ष पहलू को भी समझा जा सकता है।

132. विकल्प (4) उचित है।
व्याख्या—मनुष्य हमेशा से आध्यात्मिकता की खोज में भटकता रहा है। जिसे पाने के लिए उसने कभी ज्ञान मार्ग को, कभी कर्म मार्ग को या कभी भक्ति मार्ग को अपनाया। लेकिन मानसिक विकास की आवश्यकता का उल्लेख गद्यांश में नहीं किये जाने से यह सटीक विकल्प है।

133. विकल्प (1) उचित है।
व्याख्या—उज्ज्वल पक्ष में उज्ज्वल शब्द को पक्ष की विशेषता बताने के लिए प्रयोग में लाया गया है। पक्ष कैसा है ? उत्तर है उज्ज्वल। इसलिए उज्ज्वल विशेषण है और पक्ष विशेष्य।

134. विकल्प (3) उचित है।
व्याख्या—सापेक्ष के लिए मानक विलोम शब्द के रूप में निरपेक्ष शब्द का प्रयोग किया जाता है।

135. विकल्प (2) उचित है।
व्याख्या—दिए गए चारों विकल्पों में विकल्प 2 अर्थात् साल शब्द संज्ञा है जबकि मदद, तेजी, कर्म शब्द क्रियासूचक शब्द हैं।

136. विकल्प (3) उचित है।
व्याख्या—पठन और लेखन कौशल शिक्षार्थी को समालोचनात्मक चिंतन में सहायक होते हैं लेकिन प्राथमिक स्तर पर समालोचनात्मक चिंतन संभव

नहीं है। इसलिए अभिकथन गलत है। लेकिन तर्क कथन सही है क्योंकि समालोचनात्मक चिंतन पठन और लेखन का उप कौशल है।

137. विकल्प (3) उचित है।
व्याख्या—भाषायी कौशल का अर्थ है भाषा में ठीक तरह से काम करने की योग्यता हासिल करना। समावेशी युक्तियाँ कक्षा में भाषा समृद्ध वातावरण तैयार करती हैं जिसमें प्रत्येक शिक्षार्थी स्वयं को समावेशित और महत्त्वपूर्ण महसूस करता है। इससे भाषा अधिगम की गति में सुधार आता है।

138. विकल्प (2) उचित है।
व्याख्या—वर्णनात्मक कौशल में तर्क और बौद्धिक स्तर से अलग होकर किसी घटना या दृश्य का वर्णन करने के लिए कल्पना का सहारा लेना पड़ता है। अध्यापक विकल्प 2 की मदद से ही विद्यार्थियों के वर्णनात्मक कौशल का सटीक आकलन कर सकता है।

139. विकल्प (3) उचित है।
व्याख्या—विस्तृत पठन के माध्यम से छात्र अपनी रुचि के विषय को स्वतंत्र रूप से पढ़ता है। इस पठन के लिए वह शब्दकोश या शिक्षक पर निर्भर नहीं करता। यह पठन छात्र में पढ़ने की गति और प्रवाह को बढ़ाने में सहायक होता है।

140. विकल्प (4) उचित है।
व्याख्या—नए सत्र के संसाधनों का चयन करते समय सामग्री की जटिलता और गहनता पर ध्यान देना प्रासंगिक नहीं है। पाठ्य पुस्तक के चयन के लिए विकल्प 1, 2, 3 को मापदंड बनाया जाना अत्यावश्यक है।

141. विकल्प (2) उचित है।
व्याख्या—भाषा सामग्री के प्रयोग का निरीक्षण करने के लिए दिए गए विकल्पों में से सर्वाधिक महत्त्वपूर्ण सहायक मानदंड भाषा सामग्री की उपलब्धता, तैयारी और माध्यम है। ये भाषा सामग्री के प्रयोग की आधारभूत आवश्यकताएँ हैं जिनके अभाव में भाषा सामग्री का प्रयोग नहीं किया जा सकता।

142. विकल्प (2) उचित है।
व्याख्या—फिल्में शिक्षण अधिगम में एक सशक्त श्रव्य दृश्य माध्यम हैं। पाठ्य पुस्तक के एक अध्याय को कैप्शन के साथ दिखाई जा रही फिल्म के माध्यम से देखने के क्रम में शिक्षार्थियों में सक्रिय रूप से देखने के कौशल के साथ श्रवण युक्तियों का विकास होगा। साथ ही इनसे सीखकर शिक्षार्थी भाषा की प्रमाणिक सामग्री का एक नए माध्यम में प्रयोग करने के लिए प्रोत्साहन भी पा सकेगा।

143. विकल्प (4) उचित है।
व्याख्या—इस प्रश्न में अभिकथन सही है और उसे सिद्ध करने के लिए दिया गया तर्क भी सही है। चूँकि प्रारंभिक बाल्यावस्था में बच्चे की शब्द सम्पदा बहुत सीमित होती है और साथ ही वह व्याकरणिक नियमों से अनभिज्ञ होता है इसलिए वह संज्ञा की अपेक्षा क्रियाओं का प्रयोग अधिक

करता है और व्याकरणिक नियमों का पालन भी नहीं करता है।

144. विकल्प (4) उचित है।
व्याख्या—बालिका की भाषा कक्षा का अनुभव कार्य शिक्षा पर आधारित है जिसमें कर के सीखने पर बल दिया जाता है। जब शिक्षण अधिगम प्रक्रिया में शिक्षार्थी सक्रिय रूप से भाग लेता है तो सीखने की प्रक्रिया ज्यादा प्रभावी हो जाती है। यहाँ शिक्षार्थी स्थिति, घटना या वस्तु का प्रत्यक्ष अवलोकन कर सीखने की गति को बढ़ाता है।

145. विकल्प (2) उचित है।
व्याख्या—यदि शिक्षार्थी को किसी विषयवस्तु का अर्थ समझ में नहीं आता तो वह उससे सम्बंधित सन्दर्भ सामग्री की मदद लेती है। सन्दर्भ सामग्री में सूचना को विशेष तौर पर अधिक सुविधाजनक रूप में तैयार किया जाता है जिससे पाठ को समझने में सहायता मिलती है।

146. विकल्प (1) उचित है।
व्याख्या—नैदानिक परीक्षण उपचारात्मक शिक्षण की प्रक्रिया है जिसमें शिक्षार्थी में अपनी भाषा संबंधी गलतियों को स्वयं पहचानने की योग्यता विकसित होती है। इससे छात्रों की उपलब्धि के स्तर में सुधार होता है जो शिक्षण अधिगम प्रक्रिया का लक्ष्य है।

147. विकल्प (2) उचित है।
व्याख्या—निपुणता परीक्षण का उद्देश्य शिक्षार्थी द्वारा ग्रहण किये गए ज्ञान या किसी कौशल में उसकी योग्यता की जाँच करना है। भाषा कक्षा में इस परीक्षण से विद्यार्थी द्वारा अधिग्रहण की गई भाषा के स्तर के विषय में जानने में सहायता मिलती है।

148. विकल्प (2) उचित है।
व्याख्या—पाठ शिक्षण की प्रक्रिया को आरम्भ करने से पहले पाठ के विषयवस्तु से संबंधित प्रश्नोत्तरी जैसी गतिविधियाँ आयोजित करने से शिक्षार्थियों में टॉपिक के प्रति उत्सुकता तथा रुचि उत्पन्न होती है जो शिक्षण अधिगम प्रक्रिया में प्रभावी होती हैं। इससे सीखने की गति बढ़ती है।

149. विकल्प (2) उचित है।
व्याख्या—भाषा कक्षा में अवरोध पैदा करने वाले शिक्षार्थी को समस्या का समाधान खोजने वाली गतिविधि में भाग लेने के लिए कहने से शिक्षार्थी की अतिरिक्त ऊर्जा एक सकारात्मक कार्य में व्यय होगी और उसके मानसिक स्तर में वृद्धि होगी जिससे वह अवरोध उत्पन्न नहीं कर सकेगा।

150. विकल्प (3) उचित है।
व्याख्या—लेखन कौशल विचारों तथा भावों की लिखित अभिव्यक्ति का माध्यम है जिसका उद्देश्य विचारों को तार्किक क्रम में प्रस्तुत करना है। अपने विचारों को रचनात्मक रूप से अभिव्यक्त करने के क्रम में शिक्षार्थी किसी विचार बिंदु का मानस मंथन करता है,उसके लिए शब्दों का चयन करता है फिर उसे एक प्रारूप में ढालता तथा व्याकरण के नियमों को ध्यान में रखते हुए कार्य की प्रस्तुति करता है। वह अपने लिखित कार्य की पुनरावृति भी कर सकता है।