2024
ANNUAL COMPETITION
CLASS-IX
Time Allowed: 2 (Two) hours

INSTRUCTIONS*:*
This booklet contains 60 questions. Each question comprises four possible answers. Select ONLY ONE answer which you consider the best and mark it on the answer sheet. All questions carry equal marks.

1. Synonym for the word CONTRABAND is
   (A) DISRUPT (B) CONTRAST
   (C) COUNTER (D) SMUGGLE
2. The antonym of the word VARIED is
   (A) UNITE (B) UNITY
   (C) UNIFORM (D) UNIT
3. Change the voice:
   Shall we help him?
   (A) She shall be helped (B) Shall she get help from us?
   (C) She will be helped by us. (D) Will she be helped by us?
4. Convert the following into a direct sentence:
   My mother asked whether poverty is not a curse.
   (A) My mother said to him, "Poverty is a curse?" (B) My mother said to him, "Is not poverty a curse?"
   (C) My mother said to him, "Poverty is not a curse." (D) My mother said to him, "Curse is poverty."

Fill up with appropriate prepositions (Q 5-Q6)

5. *The incident stands testimony* _____ *his kindness.*
   (A) to (B) for
   (C) upon (D) on
6. *This will put a slur* _____ *his name.*
   (A) upo (B) in

(C) on (D) at

7. *He retired _____ loneliness in his old age.*

(A) into (B) from

(C) upon (D) onto

8. Correct the following sentence:

I seldom or ever find them quarrelling.

(A) I seldom find them quarrelling. (B) I find them quarrelling most of the time.

(C) They always quarrel. (D) no change required

9. Complete the sentence:

The train to Delhi _____ at 8 p.m.

(A) will leave (B) leaves

(C) will be leaving (D) shall be leaving

10. Change the voice:

The shed was burnt to ashes.

(A) To ashes were the shed burnt. (B) To ashes was the shed burnt.

(C) Fire burnt the shed to ashes. (D) Fire made the shed burnt to ashes.

(Read the following passage and answer the questions 11 to 15)

Daylilies are a beautiful perennial flower that can brighten up any yard or landscape. They are tolerant of drought and flooding, immune to heat stress, and grow well in full sun or light shade. They are the perfect choice for just about any soil or climate condition. Different varieties of daylilies can be in bloom from late spring until autumn. Individual flowers last only one day, but each plant produces many buds, and many varieties have more than one flowering period. Daylilies grow best in soil that is slightly acidic, and they prefer either direct sunshine or light shade. The best time to plant them is in the early fall or early spring, but they are hardy enough to endure planting or transplanting at almost any time of year. They should be planted 18 to 24 inches apart, and the bulb should be no deeper than one inch below the soil's surface.

11. According to the passage, what soil is best for daylilies?

(A) slightly neutral (B) slightly acidic

(C) any soil (D) moist soil

12. You could conclude from this passage that these flowers are called daylilies because

(A) they only bloom in the daytime. (B) the blooms last for one day.

(C) they look like real lilies, but aren't. (D) Charles Day developed the hybrid.

13. How deep should daylilies be planted, according to the passage?

(A) 18 to 24 inches (B) one inch or more

(C) one inch or less (D) any depth is fine

14. The word *perennial*, as used in this passage, means

(A) it blooms rarely. (B) it blooms every year.

(C) it is red in colour. (D) it is part of the lily genus.

15. The word *immune* means:

(A) weak (B) allergic

(C) resistant (D) none of the above

16. Which of the following is a connective tissue?

(A) Ligament (B) Tendon

(C) Blod (D) All the above

17. *Dysentery* and *malaria* are caused by:

(A) bacteria. (B) virus

(C) protozoa (D) algae

18. The management and production of fish is called:

(A) Apiculture (B) Pisciculture

(C) Sericulture (D) Aquaculture

19. Which of the following tissues has dead cells?

(A) Parenchyma (B) Sclerenchyma

(C) Collenchyma (D) Epithelial tissues

20. Double membrane is absent in _____

(A) Mitochondria (B) Chloroplast

(C) Nucleus (D) Lysosome

21. A person sitting on a moving bus falls forward when the bus brakes suddenly. It is due to

(A) Inertia of rest
(B) Inertia of motion
(C) Inertia of direction
(D) None of the above

22. The rate of change of distance of a particle gives

(A) displacement
(B) acceleration
(C) velocity
(D) speed

23. The agent that can make change in the state of rest or motion of an object is called

(A) Weight
(B) Acceleration
(C) Force
(D) Velocity

24. When a stone is thrown vertically upwards, it falls down back to earth due to

(A) Inertia
(B) Mass
(C) Gravity
(D) None of the above

25. Sound travels faster in

(A) water
(B) air
(C) steel
(D) glass

26. The process in which solid is directly converted to vapours state is called known as

(A) vaporisation
(B) solidification
(C) condensation
(D) sublimation

27. What is true about homogeneous mixture?

(A) Homogeneous mixture is the mixture of two or more than two components.
(B) In homogeneous mixture the composition and properties are uniform throughout the mixture
(C) both A and B are true
(D) none of the above.

28. What is the value of Avogadro's number?

(A) 6.022×10^{-23}
(B) 6.022×10^{23}
(C) 6.022×10^{-22}
(D) 6.022×10^{22}

29. The only exceptional element where the nucleus contains only a single proton is

(A) oxygen (B) Helium

(C) Hydrogen (D) Cadmium

30. J.J. Thomson discovered

(A) Valency of an atom (B) proton

(C) neutron (D) electron

31. Simplified value of $(256)^{-\left(4^{-\frac{3}{2}}\right)}$ is

(A) 2 (B) $\frac{1}{2}$

(C) 4 (D) 8

32. If $\left(\frac{a}{b}\right)^{2-x} = \left(\frac{b}{a}\right)^{3x-4}$ then x is

(A) 0 (B) 2

(C) -1 (D) 1

33. If $a = 3 + 2\sqrt{2}$, then the value of $a^2 + \frac{1}{a^2}$ is

(A) 35 (B) 36

(C) 34 (D) 32

34. The integer 0 is

(A) a natural number (B) a positive number

(C) a negative number (D) neither positive nor negative

35. The rational number between $-\frac{2}{3}$ and $\frac{3}{2}$ is

(A) $\frac{12}{5}$ (B) $\frac{5}{12}$

(C) $-\frac{2}{5}$ (D) $\frac{5}{4}$

36. Which of the followings is true?

(A) Every whole number is a natural number (B) Every integer is a rational number

(C) Every rational number is an integer (D) Every integer is a whole number.

37. The co-efficient of x^2 in the polynomial $(3x^2 - 5)(4 + 4x^2)$ is

(A) 5 (B) 12

(C) -8 (D) 8

38. Which of the following is not true about zero of a polynomial?

(A) A zero of a polynomial need not be 0 (B) 0 may be a zero of a polynomial

(C) A polynomial has at least one zero (D) Constant polynomials have no zero

39. Zero of the polynomial $p(x) = ax; a \neq 0$ is

(A) 0 (B) a

(C) 1 (D) $\frac{1}{a}$

40. Common zero(s) of the polynomials $x^4 - 4x^2$, $x^4 + 2x^3 - 8x^2$ and $x^3 - 4x^2 + 4x$:

(A) 1,2 (B) 0

(C) 2 (D) 0,2

41. HCF of the polynomials $x^2 - 5x - 14$, $3x^2 + 5x - 2$ and $x^3 + 8$ is

(A) $x - 2$ (B) $x + 1$

(C) $x + 2$ (D) $x + 3$

42. The LCM of the polynomials $5(x - y)^2$, $10(x^2 - y^2)$ and $15(x + y)^2$ is

(A) $30(x^2 - y^2)^2$ (B) $(x + y)^2(x - y)^2$

(C) $45(x + y)^2(x - y)^2$ (D) $50(x^2 + y^2)^2$

43. Abscissa of a point is positive in

(A) I and II quadrant (B) I and IV quadrant

(C) I quadrant only (D) IV quadrant only

44. Mirror image of the point (3,9) on $x -$ axis is

(A) $(-3, 9)$ (B) (9,3)

(C) $(3, -9)$ (D) $(-9, 3)$

45. The number of straight lines determined by three collinear points is

(A) 1 (B) 2

(C) 3 (D) 4

46. The number of dimensions a surface has is

(A) 0 (B) 1

(C) 2 (D) 3

47. An angle θ is said to be reflex if

(A) $90^0 \leq \theta \leq 180^0$ (B) $180^0 < \theta < 360^0$

(C) $180^0 \leq \theta \leq 360^0$ (D) $90^0 < \theta < 180^0$

48. If the measure of an angle is twice the measure of its supplementary angle, then the measure of the angle is:

(A) 60^0 (B) 90^0

(C) 120^0 (D) 45^0

49. When two parallel lines are intersected by a transversal, then which of the following is false?

(A) corresponding angles are equal (B) alternate angles are equal

(C) interior angles on the same side are complementary (D) they make a triangle

50. Given the angles of a triangle are in the ratio 2: 5: 11. Two of these three angles are

(A) $50^0, 90^0$ (B) $110^0, 30^0$

(C) $20^0, 120^0$ (D) $110^0, 50^0$

51. Three friends walk away from a point in three different directions for the morning walk such that the path of each is equally inclined to those of the other two. The angles that their paths make with one another is

(A) 60^0 each (B) 120^0 each

(C) 180^0 each (D) 90^0 each

52. If each angle of a triangle is less than the sum of the other two, then the triangle is

(A) acute angled triangle (B) isosceles triangle

(C) scalene triangle (D) obtuse triangle

53. The difference of the squares of two consecutive natural numbers is equal to

(A) product of the two numbers (B) difference of the two numbers

(C) sum of the two numbers (D) LCM of the two numbers

54. A group of a boys in a class bought a football costing Rs.200. If each boy contributed as many 50 paise -coins as there were boys, then the number of boys is

(A) 40 (B) 25

(C) 22 (D) 20

55. The smallest number that must be subtracted from 9761 so that the difference is a perfect cube is

(A) 520 (B) 500

(C) 400 (D) 521

56. A two-digit number is such that the digit in the 10's place is 3 larger than in the unit's place. If x is in the 10's place, then the two-digit number is

(A) $11x - 3$ (B) $10x + 3$

(C) $12x - 3$ (D) $2x - 3$

57. The value of $8a^3 + b^3$ if $2a + b = 5$ and $ab = 4$ is

(A) 7 (B) 6

(C) 4 (D) 5

58. If $x = 2 + \sqrt{3}$, then the value of $x^2 - 4x + 5$ is

(A) 4 (B) 5

(C) 0 (D) $2\sqrt{3}$

59. A pair of shoes was sold for Rs. 704 after allowing discount of 12% on the marked price. The marked price is

(A) Rs.750 (B) Rs.800

(C) Rs.820 (D) Rs.810

60. Solve for x: $\frac{1}{1+\frac{1}{1-\frac{1}{x}}} = 4$

(A) $\frac{1}{2}$ (B) $\frac{3}{7}$

(C) $-\frac{3}{7}$ (D) $\frac{7}{3}$