INTERNATIONAL INDIAN SCHOOL BURAIDAH
Annual Examination   March 2023-2024
MATHEMATICS-Sample Question Paper

Class: VII   **Total:80M**

Date: 20-02-2024   **Time :3 hrs.**

SECTION A

Choose the correct option from the brackets: **(1 × 9 = 9M)**

1. Percentages are numerators of fractions with denominator.
   a) 25   b) 50   c) 75   d) 100
2. There are ------------rational numbers between any two rational numbers.
   a) 1   b) finite   c) infinite   d) 0
3. The ------- is the numerical factor in the term.
   a) Coefficient   b) variable   c) Both a) and b)   d) none of these
4. The area of the parallelogram of base 5cm and height 3.2cm is
   a) 8cm^2 b) 12cm^2 c) 16cm^2 d) 20cm^2
5. The line of symmetry of an equilateral triangle is -------
   a) 1   b) 2   c) 3   d) 4
6. 20% of 800 is -----
   a) 160   b) 200   c) 400   d) None of these
7. A rational number is not equivalent to$\frac{-7}{9}$
   a) $\frac{-14}{18}$ b) $\frac{21}{-27}$ c) $\frac{35}{45}$ d$\frac{28}{-3}$
8. The exponential form of 512 is ------
   a) 2^9 b) 2^8 c) 2^7 d) 2^6
9. A ------joins the vertex of a triangle to the mid-point of the opposite side
   a) Altitude   b) median   c) angle bisector   d) hypotenuse

SECTION B

Fill in the blanks: **(1× 6 = 6 M)**

10. The angle of rotation of a rectangle is ---------
11. The simplest form of the ratio 26: 91= -------
12. In a right-angled triangle the longest side is called ---------
13. The circumference of a circular disc of radius 28cm is -----
14. (-1)^5 × (-1)^3 × (-1)^1 = ---------
15. The value of the expression 2x + 5 when x = 0 is ------

SECTION C

Answer the following Questions: -   **(2 × 11 = 22 M)**

16. 40% of a number is 800 then find the number?
17. Find four rational numbers between $\frac{-1}{2}$ and $\frac{2}{3}$
18. Find the value of a, if $9x^2 - 7x + a$ is equal to 6 for x = 1
19. Find the value of $2^4 \times 3^3$
20. Check whether 8.7cm, 5.6cm, 4.9 cm can be the sides of a triangle.
21. A shopkeeper bought a suitcase for 480 and sold it for 540. Find his gain percentage.
22. Area of a circle is 154 cm^2, find its circumference (take $\pi = \frac{22}{7}$)
23. Draw a number line and represent $\frac{3}{4}$ and $\frac{-5}{4}$ on it.
24. PQR is a triangle right-angled at P. If PQ = 10 cm and PR = 24cm. Find QR?
25. Write the standard form and expanded form of 156.
26. Subtract $11x^2 + 16xy - 19y^2$ from $15x^2 - 6xy + 3y^2$

SECTION D

Answer the following Questions: **(3 × 9 =27M)**

27. a) The cost of a flower vase is ₹120. If the shopkeeper sells it at a loss of 10%, find the price at which it is sold.

    OR

    b) An item was sold for ₹540 at a loss of 5%. What was its cost price?
28. Write in exponential form   44× 242.
29. The area of a rectangular field of breadth 48m is the same as the area of a square field of side 60m. Find the perimeter of the rectangular field?
30. a) In the parallelogram ABCD, AB = 12cm, AD = 8cm, and the altitude from the vertex C is 6.2cm. Find
    1) The area of the parallelogram
    2) Find the altitude from the vertex B

    OR

    b) A circular flower bed is surrounded by a path 4m wide. The diameter of the flower bed is 66m. What is the area of the path (take π = 3.14)
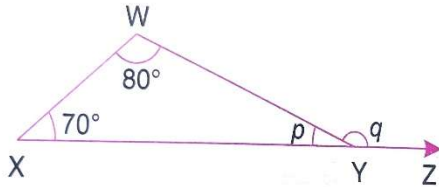31. a) What should be subtracted from 5a + 8b + 12 to get 3a + 7b + 16?

    OR

    b) Simplify and find the value if x = 3

       4(2x -1) + 3x + 11
32. Write the centre of rotation, order of rotation and angle of rotation of
    a) Square   b) circle
33. Anil deposited ₹25,000 in a bank which pays 11.5% interest per annum. Find the amount he will get after 5 years.

34. Write following rational numbers in ascending order:

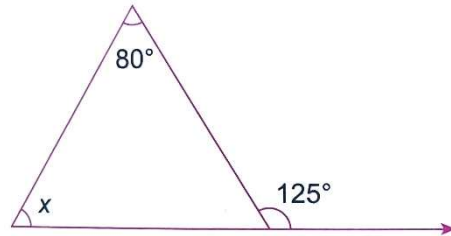a) $\frac{1}{2}, \frac{2}{3}, \frac{-1}{3}, \frac{-5}{6}$ b) $\frac{5}{6}, \frac{-7}{12}, \frac{-1}{2}, \frac{1}{3}$

35. Find the unknown angles in the following:
   a)   b)

SECTION E

Answer the following Questions: (4 × 4 = 16M)

36. a) Simplify $\frac{27^2 \times 8^2 \times 10^4}{5^3 \times 3^6 \times 2^6}$

   OR

   b) Simplify using laws of exponents.
      1) $3^2 \times 3^3 \times 3^1$
      2) $(5^2)^3$
      3) $2^5 \times 5^5$

37. a) From the sum of 2x² + 3xy - 5 and 7 + 2xy - x² subtract 3xy + x² - 2

   OR

   b) Aliya took ₹ (7x -50) with her bag for shopping. She spent ₹ (2x + 15) for groceries and ₹ (3x- 20) to buy fruits and vegetables. Find how much money was left with her.

38. Solve
   a) $\frac{3}{7} + \frac{2}{5}$
   b) $\frac{8}{9} - 1\frac{2}{7}$
   c) $\frac{12}{15} \div \frac{4}{5}$

39. Find the area and perimeter of the rectangle whose length is 60cm and a diagonal is 61cm.

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