

FIRST MID TERM TEST - 2024

Standard VIII

Reg.No.

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MATHEMATICS

Time : 1.30 hrs

Part - A

Marks : 50

5 x 1 = 5

I. Choose the correct answer:

1. $\frac{-5}{4}$ is a rational number which lies between _____.

- a) 0 and $\frac{-5}{4}$ b) -1 and 0 c) -1 and -2 d) -4 and -5

2. $\sqrt{128} - \sqrt{98} + \sqrt{18} =$ _____.

- a) $\sqrt{2}$ b) $\sqrt{8}$ c) $\sqrt{48}$ d) $\sqrt{32}$

3. If the cube of a squared number is 729, the square root of that number is _____.

- a) 3 b) 9 c) $\sqrt{3}$ d) 81

4. If $\frac{10^x}{10^{-3}} = 10^9$, then x is _____.

- a) 4 b) 5 c) 6 d) 7

5. The central angle of a quadrant of a circle is _____.

- a) 45° b) 60° c) 90° d) 180°

II. Fill in the blanks.

5 x 1 = 5

6. The next rational number in the sequence $\frac{-15}{24}, \frac{20}{-32}, \frac{-25}{40}$ is _____.

7. The value of $\sqrt{180}$ lies between integers _____ and _____.

8. $(3^{-1} + 4^{-2} + 5^{-3})^0 =$ _____.

9. The ratio between the circumference and diameter of any circle is _____.

10. A cube has _____ faces.

III. Match the following.

5 x 1 = 5

11. $a^m \times a^n$ - πr^2 sq. units

12. Area of a quadrilateral - a^{m+n}

13. $\sqrt[3]{x}$ - Q

14. Rational number - $\frac{1}{2}d[h_1 + h_2]$

15. Area of a circle - $x^{\frac{1}{3}}$

2
Part - B

VIII Maths**IV. Answer any 6 questions.****6 x 2 = 12**

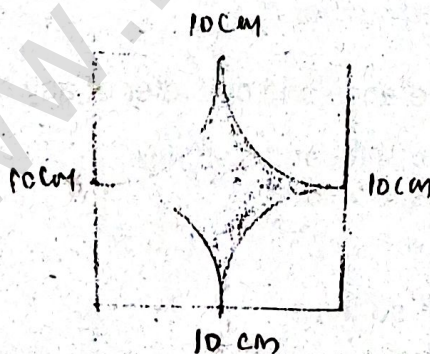
16. Draw a number line and represent the rational number $-\frac{8}{3}$ on it.
17. Write the decimal form of the rational number $\frac{1}{3}$
18. Compare $\frac{5}{17}$ and $\frac{-10}{19}$
19. Divide : $\left(\frac{-3}{13}\right) \div (-3)$
20. Find the square root of 324 by Prime factorisation.
21. Write the numbers in scientific notation :
Earth's volume is about 1,083,000,000,000 cubic kilometers.
22. The radius of a sector is 21 cm and its central angle is 120° . Find the area of the sector.
23. Define : Sector.
24. Verify Euler's formula for the given details : Faces 4, Vertices 4, Edges 6

Part - C**V. Answer any 3 questions.****3 x 5 = 15**

25. Arrange the following rational numbers in ascending order.

$$\frac{-17}{10}, \frac{-7}{5}, 0, \frac{-2}{4}, \frac{-19}{20}$$

26. The area of a square field is 3136 m^2 . Find its perimeter.
27. Find the square root by long division method : 6889
28. Expand using exponents :
i) 6054.321 ii) 897.14
29. Find the area of the shaded part in the following figure. ($\pi = 3.14$)

**Part - D****VI. Answer anyone of the question.****1 x 8 = 8**

30. Construct a quadrilateral ABCD with $AB = 5 \text{ cm}$, $BC = 4.5 \text{ cm}$, $CD = 3.8 \text{ cm}$, $DA = 4.4 \text{ cm}$ and $AC = 6.2 \text{ cm}$. Also find its area.
31. Construct a trapezium BOAT in which \overline{BO} is parallel to \overline{TA} , $BO = 7 \text{ cm}$, $OA = 6 \text{ cm}$, $BA = 10 \text{ cm}$ and $TA = 6 \text{ cm}$. Also find its area
