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THOOTHUKUDI - DISTRICT FIRST MID TERM TEST - 2024

Standard - VIII

Reg No

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MATHEMATICS

Marks: 50

Time: 1.30 hrs.

I. Choose the best option:**7 × 1 = 7**

1. Which of the following rational numbers is the greatest?

A) $\frac{-7}{24}$

B) $\frac{-13}{16}$

C) $\frac{7}{-8}$

D) $\frac{-31}{32}$

2. The standard form of the sum $\frac{3}{4} + \frac{5}{6} + \left(\frac{-7}{12}\right)$ is _____.

A) 1

B) $\frac{-1}{2}$

C) $\frac{1}{12}$

D) $\frac{1}{22}$

3. $\frac{3}{4} \times \left(\frac{1}{2} - \frac{1}{4}\right) = \frac{3}{4} \times \frac{1}{2} - \frac{3}{4} \times \frac{1}{4}$ illustrates that multiplication is distributive over _____.

A) addition

B) subtraction

C) multiplication

D) division

4. _____ is added to 24^2 to get 25^2 .

A) 4^2

B) 5^2

C) 6^2

D) 7^2

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

A) 4

B) 5

C) 6

D) 7

6. Area of a circle _____.

A) $\frac{1}{4} \pi r^2$

B) $(\pi + 2) r$

C) πr^2

D) $2\pi r$

7. A cube has _____ faces.

A) 6

B) 5

C) 4

D) 8

II. Answer any 5 : (Q.No.14 is compulsory)**5 × 2 = 10**8. Compare $\frac{3}{4}$ and $\frac{5}{6}$ 9. Find the sum : $\frac{7}{5} + \frac{5}{7}$ 10. Evaluate : $\frac{9}{132} \times \frac{-11}{3}$

11. Examine if 190 is a perfect square.

12. Is 400 a perfect cube? Examine.

13. Find the value of $\frac{3^2}{3-2}$

14. A circle of radius 70cm is divided into 5 equal sectors. Find the area of each of the sectors.

III. Answer any 5 : (Q.No.21 is compulsory)

5 × 5 = 25

15. Arrange the following rational numbers in ascending and descending order.

$$\frac{-5}{12}, \frac{-11}{8}, \frac{-15}{24}, \frac{-7}{-9}, \frac{12}{36}$$

16. Find $(a + b) \div (a - b)$ if $a = \frac{1}{2}$, $b = \frac{2}{3}$

17. Verify the commutative property for addition and multiplication for the

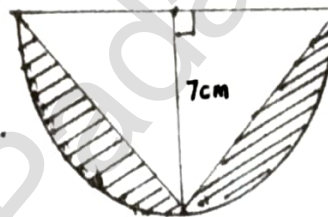
rational numbers $\frac{-10}{11}$ and $\frac{-8}{33}$

18. Find the square root of 459684 by long division method.

19. Evaluate : $\left(\frac{2}{5}\right)^4 \times \left(\frac{5}{2}\right)^{-2}$

20. For a sector, central angle 45° , $r = 16\text{cm}$, find the length of the arc, area and perimeter. ($\pi = 3.14$)

21. Find the area of the shaded part.



IV. (Geometry question) Answer any one:

1 × 8 = 8

22. a) 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.
- b) Construct a trapezium AIMS with $\overline{AI} \parallel \overline{SM}$, $AI = 6\text{cm}$, $IM = 5\text{cm}$, $AM = 9\text{cm}$ and $MS = 6.5\text{cm}$. Also find its area.
