

SECOND MID TERM TEST - 2024

9 - STD

MATHS

--	--	--	--	--	--

Time : 1.30 Hrs

Marks : 50

PART - I

I. Answer all the questions.

6 X 1 = 6

1. Which of the following is linear equation.

a) $x + \frac{1}{x} = 2$

b) $x(x-1) = 2$

c) $3x+5 = \frac{2}{3}$

d) $x^3 - x = 5$

2. (f (2,3) is a solution of linear equation of the equation $2x + 3y = K$, then find the value of 'K'

a) 12

b) 6

c) 0

d) 13

3. If $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ where $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ then the given pair of linear equation has solution (s)

a) no solution

b) two solution

c) unique

d) infinite

4. A chord is at a distance of 15 cm from the centre of the circle of radius 25 cm. The length of the chord is

a) 25 cm

b) 20 cm

c) 40 cm

d) 18 cm

5. The points (-5, 2) and (2, -5) lie in the

a) same quadrant

b) II, III quadrant

c) II, IV quadrant

d) IV and II quadrant

6. The distance between the two points (2,3) and (1,4) is

a) 2

b) $\sqrt{56}$

c) $\sqrt{10}$

d) $\sqrt{2}$

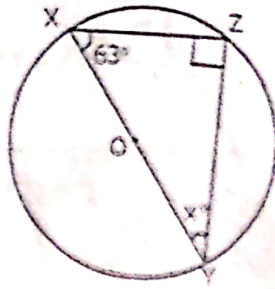
PART - II

II Answer any 4 questions. 12th question is compulsory.

4 X 2 = 8

7. Solve by substitution method. $x + 3y = 16$, $2x - y = 4$ 8. Solve : $2x - y = 3$, $3x + y = 7$

9. The angles of a quadrilateral are in the ratio 2 : 4 : 5 : 7 Find all the angles.



10. Find the value of x°

11. Find the distance between the points $(-4, 3)$, $(2, -3)$

12. Find the mid point of the following points $(8, -2)$, $(-8, 0)$

PART - III

- III Answer any 4 questions. 18th question is compulsory. $4 \times 5 = 20$

13. Check whether $(5, -1)$ is a solution of the simultaneous equations $x - 2y = 7$ and $2x + 3y = 7$
14. Solve by elimination method: $4a + 3b = 65$, $a + 2b = 35$
15. The chord of length 30 cm is drawn at the distance of 8 cm from the centre of the circle. Find the radius of the circle.
16. Determine whether the given the points are collinear or not $(7, -2)$, $(5, 1)$, $(3, 4)$
17. Find the points which divide the line segment joining $A(-11, 4)$ and $B(9, 8)$ into four equal parts.
18. Solve by cross - multiplication : $8x - 3y = 12$, $5x = 2y + 7$

PART - IV

- IV Answer all the question.

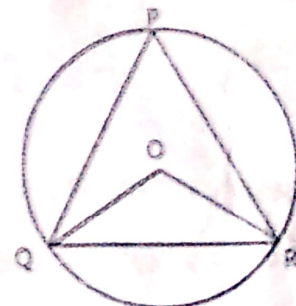
$2 \times 8 = 16$

19. Draw the graph for $y = 4x - 1$, (OR) $y = \left(\frac{2}{3}\right)x + 5$

20. In the given figure, O is the centre of the circle,

If the measure of $\angle OQR = 48^\circ$

What is the measure of $\angle P$. (OR)



Show that the point $(11, 2)$ is the centre of the circle passing through the points $(1, 2)$, $(3, -4)$ and $(5, -6)$.

9 - கணிதம் page - 2