VILLUPURAM DIST.

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COMMON QUARTERLY EXAMINATION - 2024-25

Time Allowed	;	2.30	H	ours
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MATHEMATICS

[Max. Marks: 100

1.	Choose	the	correct	Answer.
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10x1=10

C)

- Closure property is not true for division of rational numbers because of the number
 - is added to get 252

- 6²
- 72

- (-2) -3 x (-2) -2 = -----5.

4.

- b)
- 32
- d) -32

- Area of a Circle -----6.
 - a) πr²
- b) $2\pi r$
- c) $\frac{1}{4} \pi r^2$
- $2\pi r^2$

- The product of 7P3 and (2P2)2 is -----7.

- 11P12

- $(a+b)(a^3-b^3)$ 8.
 - a) $a^2 ab + b^2$
- b) $a^2 + ab + b^2$
- $a^2 + 2ab + b^2$ c)
- (b) $a^2 - 2ab + b^2$
- Two similar triangles will always have ----- angles. 9.
- Obtuse b)
- Right c)
- d) Matching
- The number of conversion periods in a year, if the interest on a principal is compounded every two month is ----
 - a) 2

- b)
- d)

- 11. Fill in the Blanks. The Multiplicative inverse of -1 is ----11.
- The one digits in the square of 77 is 12.
- The longest chord of a circle is --13.
- The cube has ----- faces. 14.
- The symbol ~ is used to represent ----- triangles. 15.
- III. Say true of false.
- 0 is the smallest rational number ()
- 17. The square root of 225 is 15. ()
- 18. $27y^3 \div 3y = 9y^2$

16.

- The co-ordinates of the origin are (1, 1). () 19.
- Loss or gain percentage is always calculated on the selling price. () 20.

5x1=5

5x1=5

5x1=5

- IV. Match the following. 21.
- 1/4 TT2
- Area of a circle 22. Circumference of a circle
 - $(\pi + 2)$ r
- 23.
- $\pi \Gamma^2$ Area of the sector of a circle $2\pi r$ Circumference of a semi circle -24.
- Area of a quadrant of a circle
- $\frac{\theta^{\circ}}{360^{\circ}} \times \pi r^2$

10x2=20

- Answer any 10 of the following. (Q.No.40 Compulsory) ٧.
- Find a rational number between $\frac{1}{3}$ and $\frac{5}{9}$

V/8/Mat/1

- Evaluate: i) $\frac{9}{132} \times \frac{-11}{3}$ ii) $\frac{-7}{27} \times \frac{24}{-35}$ 27.
- Find the value or \$\overline{256}\$. 28.
- Simplify (35 ÷ 38)5 x 3-5 29.

By how much does $(\frac{1}{10/11})$ exceed $\frac{(1/10)}{11}$? 30.

- A circular shaped Gymnasium ring of radius 35cm is divided into 5 equal arcs shaded with different 31. colours. Find the length of each of the arcs.
- A circle of radius 70 cm is divided into 5 equal sectors. Find the area of the sectors. 32.
- Find the product of 2x2 y2, 3y2z and -z2x3 33.
- 3m² , 2m⁴ 34.
- Find the value of (3a + 4c)2 by using (a+b)2 Identify. 35.
- What is 25% of 30% of 400? 36.
- If x% of 600 is 450 Then find the value of x. 37.
- The value of motor cycle 2 years ago was ₹. 70,000. It depreciates at the rate of 4% p.a. Find its present 38.
- Can a right triangle have sides that measure 5 cm, 12 cm and 13 cm? 39.
- Is 108 a perfect square number? 40.

PART - III

Answer any Seven questions. (Q.No.50 Compulsory.) VI.

7x5 = 35

Arrange the following rational numbers in ascending and decending order. 41. <u>-5</u> <u>-11</u> <u>-15</u> <u>-7</u> <u>12</u> <u>36</u>

- Simplify: $\left[\frac{4}{3} \left(\frac{-3}{2}\right)\right] + \left[\frac{-5}{3} \div \frac{30}{12}\right] + \left[\frac{12}{9} \times \frac{-27}{16}\right]$ 42.
- What is the square root of Cube root of 46656? 43.
- If P + 2q = 18 and Pq = 40, Find $\frac{2}{5} + \frac{1}{5}$
- Find the least numbers by which 1800 should be multiplied so that it becomes a perfect square number. Also find the square root of the perfect square thus, obtained.
- Find the Area of the given figure. 46.

Radius r = 3.5 cm.



- Multiply: (2x+5y) and (3x-4y). 47.
- Find the quadrats without plotting the points on a graph (-3, 4), (2, 0) (-7, -3), (5, 2). 48.
- Find the C.I for the data Principal = Rs 4000, r = 5% p.a, n = 2 years. 49.
- Divide: (5y3 25y2 + 8y) by 5y 50.

PART - IV

Answer the following. VII.

- Construct a quadrilateral DEAR, with DE = 6 cm, EA = 5 cm, AR = 5.5 cm RD = 5.2 cm and DA = 10 cm. 51. Also Find its area. (OR)
 - Construct a quadrilateral NICE with NI = 4.5 cm, IC = 4.3 cm, NE = 3.5 cm, NC = 5.5 cm and IE = 5 cm. b) Also find its area.
- Draw a straight line by joining the points A (-2, 6) and B (4, -3) 52. a)
 - If the points P(5,3), Q(-3,3), R(-3,-4) and 'S' from a rectangle, then find the co-ordinate of S.