V8M

Virudhunagar District

Common Quarterly Examination - September 2025

Standard 8

MATHS

Time: 2.30 Hrs. Marks: 100

I. Choose the correct answer: **10×1=10**

1) $\frac{3}{4}\times\left(\frac{5}{8}+\frac{1}{2}\right)=$ _____.
   a) $\frac{5}{8}$ b) $\frac{2}{3}$ c) $\frac{15}{32}$ d) $\frac{15}{16}$
2) _____ is added to 24^2 to get 25^2.
   a) 4^2 b) 5^2 c) 6^2 d) 7^2
3) If $\frac{10^x}{10^{-3}}=10^9$, then x is _____.
   a) 4 b) 5 c) 6 d) 7
4) A cube has _____ faces.
   a) 5 b) 6 c) 8 d) 12
5) If the area of a square is $36x^4y^2$ then its side is _____.
   a) $6x^4y^2$ b) $8x^2y^2$ c) $6x^2y$ d) $-6x^2y$
6) $27y^3 \div 3y =$ _____.
   a) $9y^2$ b) $81y^4$ c) $9y^3$ d) $30y^4$
7) When 60 is subtracted from 60% of a number to give 60, the number is
   a) 60 b) 100 c) 150 d) 200
8) What is the marked price of a hat which is bought for ₹ 210 at 16% discount?
   a) ₹ 243 b) ₹ 176 c) ₹ 230 d) ₹ 250
9) The hypotenuse of a right angled triangle of sides 12 cm and 16 cm is _____.
   a) 28 cm b) 20 cm c) 24 cm d) 21 cm
10) How many outcomes can you get when you toss three coins once?
   a) 6 b) 8 c) 3 d) 2

II. Fill in the blanks: **5×1=5**

11) The chemical form of the rational number $\frac{15}{-4}$ is _____.
12) A part of circumference of a circle is called as _____.
13) (−5, 0) point lies on _____ axis.
14) Corresponding sides of similar triangles are _____.
15) 0.5252 is _____%

III. Say True or False: **5×1=5**

16) The additive inverse of $\frac{-11}{-17}$ is $\frac{11}{17}$.
17) The square root of 225 is 15.
18) The co-ordinates of the origin are (1, 1).
19) In a right angled triangle, the hypotenuse is the greatest side.
20) Depreciation value is calculated by the formula, $P\left(1-\frac{r}{100}\right)^n$.

IV. Match the following: **4×1=4**

21) Area of a circle - $\frac{\theta}{360^o}\times\pi r^2$ sq.units
22) Area of the sector of a circle - $\frac{1}{2}d(h_1+h_2)$ sq.units
23) Area of the quadrilateral - bh sq.units
24) Area of the parallelogram - πr^2 sq.units

V. Answer any 10 questions: **10×2=20**

25) Find the sum: $\left(-4\frac{2}{3}\right)+\left(7\frac{5}{12}\right)$
26) The area of a square field is 3136m². Find its side.

27) Solve: $\frac{2^{2x-1}}{2^{x+2}} = 4$

28) Length of the arc 48m and radius 10m, find the area of the sectors.

29) Find the product of $(2x+3)(2x-4)$.

30) Vertices 6 edges 14 using Euler's formula, find the value of faces of cube.

31) (5, −7), (3, 6), (6, 0), (−1, −2) find the quadrants without plotting the points on a graph sheet.

32) If x% of 600 is 450, then find the value of x.

33) If the selling price of 10 rulers is the same as the cost price of 15 rulers, then find the profit percentage.

34) ₹ 5,000, 4% per annum n = 2 years, find the difference in compound interest and simple interest.

35) Find the unknowns value ∠Q = x, ∠R = y find x, y.

36) A 20 feet ladder leans against a wall at height of 16 feet from the ground. How far is the base of the ladder from the wall?

37) Shanthi has 5 chudithar sets and 4 frocks. In how many possible ways can she wear either a chudithar or a frock?

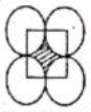
VI. Answer any 8 questions: **8×5=40**

38) Arrange the following rational numbers in ascending and descending order:
$\frac{-17}{10}, \frac{-7}{5}, 0, \frac{-2}{4}, \frac{-19}{20}$

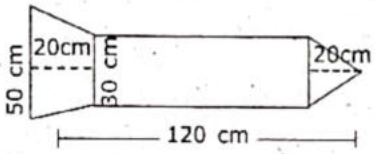
39) Simplify: $\left(\frac{-4}{3} - \left(\frac{-3}{2}\right)\right) + \left(\frac{-5}{3} \div \frac{30}{12}\right) + \left(\frac{-12}{9} \times \frac{-27}{16}\right)$

40) Find the cube root of $24 \times 36 \times 80 \times 25$.

41) Four identical medals, each of diameter 7 cm are placed as shown in. Find the area of the shaded region between the medals. ($\pi = 22/7$)



42) A rocket drawing has the measures as given in the figure. Find its area.



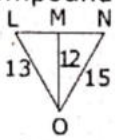
43) Multiply $3x^2$ and $(2x^3y^3 - 5x^2y + 9xy)$.

44) Identify the errors and correct them.
(i) $7y^2 - y^3 + 3y^2 = 10y^2$. (ii) $6xy + 3xy = 9x^2y^2$ (iii) $m(4m-3) = 4m^2 - 3$

45) If a car is sold for ₹ 2,00,000 from its original price of ₹ 3,00,000, then find the percentage of decrease in the value of the car.

46) ₹ 4,000, r = 5% p.a., n = 2 years. Find the compound interest.

47) Find LM, MN, LN and also the area of ΔLON.



48) An examination paper has 3 sections, each with five questions and students are instructed to answer one question from each section. In how many different ways of can the questions be answered.

VII. Answer the following: **2×8=16**

49) a) Construct a quadrilateral ABCD with AB = 5 cm, BC = 4.5 cm, CD = 3.8 cm, DA = 4.4 cm and AC = 6.2 cm. Also find its area. **(OR)**

b) $\overline{BO}$ is parallel to $\overline{TA}$, BO = 7 cm, OA = 6 cm, BA = 10 cm and TA = 6 cm. Also find its area.

50) a) Plot the following points in a graph sheet.
(5, 2), (2, 0), (−7, 2), (−3, −5), (0, 7), (8, −4) **(OR)**

b) Draw the graph of y = 6.
