

QUARTERLY EXAMINATION - 2023

MATHS

8 - STD

	8	2	4	1
--	---	---	---	---

Time : 3.00Hrs

Marks : 100

Part - A

I Choose the best answer.

10 X 1 = 10

1. Which of the following rational number is the greatest?
 a) $\frac{17}{24}$ b) $\frac{-13}{16}$ c) $\frac{7}{-8}$ d) $\frac{-31}{32}$
2. Closure property is not true for division of rational numbers because of the number
 a) 1 b) -1 c) 0 d) $\frac{1}{2}$
3. The square of 43 ends with the digit
 a) 9 b) 6 c) 4 d) 3
4. $\sqrt{48}$ is approximately equal to
 a) 5 b) 6 c) 7 d) 8
5. If $\frac{10^x}{10^{-3}} = 10^0$, then x is
 a) 4 b) 5 c) 6 d) 7
6. If the area of a rectangle is $48m^2n^3$ and whose length is $8mn^2$ then, its breadth is
 a) $6mn$ b) $8m^2n$ c) $7m^2n^2$ d) $6m^2n^2$
7. Two similar triangles will always have angles.
 a) acute b) obtuse c) right d) Matching
8. How many outcomes can you get when you toss three coins once?
 a) 6 b) 8 c) 3 d) 2
9. If the area of a rectangular land is $(a^2 - b^2)$ sq units whose breadth is $(a-b)$ then, its length is
 a) $a - b$ b) $a + b$ c) $a^2 - b$ d) $(a + b)^2$
10. The sum of the digits of the denominator in the simplest form of $\frac{112}{528}$ is
 a) 4 b) 5 c) 6 d) 7

II Fill in the blanks.

5 X 1 = 5

11. The decimal form of the rational number $\frac{15}{4}$ is 3.75.
12. The value of $\left(\frac{-3}{6}\right) \times \left(\frac{18}{-9}\right)$ is 1.
13. The number perfect square numbers between 300 and 500 is 5.
14. A part of circumference of a circle is called as Circular arc.
15. x - axis and y - axis intersect at Origin (0, 0).

III True or false.

4 X 1 = 4

16. The average of two rational numbers line between them. T
17. The additive inverse of $\frac{-11}{-17}$ is $\frac{11}{17}$. F
18. $7ab^3 \div 14ab = ab^2$. F
19. The in centre is equidistant from all the vertices of a triangle. F

IV Match the following.

5 X 1 = 5

- | | | |
|-----------------------------------|---|-----------------------------------|
| 20. Area of a circle | - | a) $\frac{1}{4}pr^2$ 5 |
| 21. Circumference of a circle | - | b) $(p+2)r^4$ |
| 22. Area of the sector of circle | - | c) pr^2 1 |
| 23. Circumference of a semicircle | - | d) $2pr^2$ |
| 24. Area of a quadrant of circle | - | e) $\frac{90}{360} \times pr^2$ 3 |

8 Maths Page-1

Part - B

10 X 2 = 20

V Answer any ten of the following.

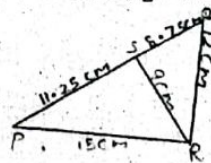
25. Add : $\frac{-6}{11}, \frac{8}{11}, \frac{-12}{11}$.
26. Evaluate : $\frac{9}{132} \times \frac{-11}{3}$.
27. Is 108 a perfect square number?
28. Find the square of 203?
29. Find x if $5\frac{x}{5} \times 3\frac{3}{4} = 21$.
30. i) A spinner of radius 7.5cm is divided into 6 equal sectors. Find the area each of the sectors. ii) $3x^2y, -3xy^3, x^2y^2$.
31. Simplify : $\frac{14p^5q^3}{2p^2q} - \frac{12p^3q^4}{3q^2}$.
32. Pythagoram theorem.
33. Sum of $\frac{7}{5} + \frac{5}{7}$.
34. Find the value of $\sqrt{256}$.
35. Find the value of 4^{-3} .
36. i) Length of the arc, $l =$ ii) Area of the sector, $A =$
37. Expand $-2p(5p^2 - 3p + 7)$.

Part - C

VI Answer any eight of the following.

8 X 5 = 40

38. Find a rational number between $\frac{1}{3}$ and $\frac{5}{9}$.
39. The product of two rational number is $-\frac{2}{3}$. If one number is $\frac{3}{7}$, then find the other.
40. Find the square root of 324 by prime factorisation.
41. Solve for x i) $\frac{2^{2x-1}}{2^{x+2}} = 4$, ii) $\frac{5^5 \times 5^{-4} \times 5^x}{5^{12}} = 5^{-5}$.
42. The radius of a sector is 21cm and its central angle is 120° .
Find i) the length of the arc. ii) area of the sector. iii) Perimeter of sector ($p = \frac{22}{7}$).
43. Nishanth has a key - chain which is the form of an equilateral triangle and a semicircle attached to a square of side 5cm as shown in the fig. 2.24. Find its area ($p = 3.14$, $\sqrt{3} = 1.732$).
44. Divide : $(5y^3 - 2y^2 + 8y)$ by $5y$.
45. Prove that $\Delta PQR \sim \Delta PRS$.
46. Find the cube root of 27000.
47. Shanthy has 5 chudithar sets and 4 frocks. In how many possible ways, can she wear either a chudithar on a frock?



VII Answer the following questions.

2 X 8 = 16

48. a) Construct a quadrilateral DEAR with $DE = 6\text{cm}$, $EA = 5\text{cm}$, $AR = 5.5\text{cm}$, $RD = 5.2\text{cm}$ and $DA = 10\text{cm}$. Also find its area. (OR)
- b) PLAY, $PL = 7\text{cm}$, $LA = 6\text{cm}$; $AY = 6\text{cm}$, $PA = 8\text{cm}$ and $LY = 7\text{cm}$.
49. a) Consider the following points $M(4,3)$, $N(-4,5)$, $P(-3,-6)$, $Q(5,-2)$, $R(6,0)$, $S(0,-5)$
(OR) b) Find the quadrants without plotting the points on a graph sheet
 $(3,-4)$, $(5,7)$, $(2,0)$, $(-3,-5)$, $(4,-3)$, $(-7,2)$, $(-8,0)$, $(0,10)$, $(-9,50)$.

8 Maths Page-2