QL

QUARTERLY EXAMINATION - 2024

8 - Std

MATHS

Time : 2.30 Hrs.

MARKS : 100

PART - A

I **Choose and write the correct answer.** 10 X 1 = 10

1. The number which is subtracted from $\frac{-6}{11}$ to get $\frac{8}{9}$ is ..... .

   a) $\frac{34}{99}$ b) $\frac{-142}{99}$ c) $\frac{142}{99}$ d) $\frac{-34}{99}$

2. Which of these rational numbers which have additive inverse?

   a) 7 b) $\frac{-5}{7}$ c) 0 d) all of these

3. Closure property is not true for division of rational numbers because of the number.

   a) 1 b) -1 c) 0 d) $\frac{1}{2}$

4. $\sqrt{128}-\sqrt{98}+\sqrt{18}$ = ...

   a) $\sqrt{2}$ b) $\sqrt{8}$ c) $\sqrt{48}$ d) $\sqrt{32}$

5. By what number should $(-4)^{-1}$ be multiplied so that the product became 10^{-1}?

   a) $\frac{2}{3}$ b) $\frac{-2}{5}$ c) $\frac{5}{2}$ d) $\frac{-5}{2}$

6. The product of $7p^3$ and $(2p^2)^2$ is

   a) $14p^{12}$ b) $28p^7$ c) $9p^7$ d) $11p^{12}$

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. By selling a flower pot for Rs. 528, a woman gains 20%. At what price should she sell it to gain 25%?

   a) Rs. 500 b) Rs. 550 c) Rs. 553 d) Rs. 573

9. Two similar triangles will always have ..... angles.

   a) obtuse angles b) right angles c) acute angles d) matching angles

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 X 1 = 5

11. The decimal form of the rational number $\frac{15}{-4}$ is ..... .
12. The longest chord of a circle is ..... .
13. X axis and Y axis intersect at ..... .
14. Loss or gain percentage is always calculated on the ..... .
15. In any triangle ..... sides are opposite to equal angles.

III Say true? False? 5 X 1 = 5

16. The average of two rational numbers lies between them.
17. The square root of 225 is 15.
18. The standard form of 2×10^{-4} is 0.0002.
19. (-9,0) lies on the x axis.
20. The present value of a machine is Rs. 16800. It depreciates at 25% p.a. its worth after 2 years is Rs. 9450.

IV Match. 5 X 1 = 5

21.	Perimeter of a sector	-	$BC^2 = AB^2 + AC^2$
22.	$(a^m)^n$	-	l + 2r units
23.	Cuboid	-	A-P
24.	Compound interest	-	6 faces
25.	Phythagoras theorem	-	a^{mn}

PART - B

V Answer the following. (Any 12) 12 X 2 = 24

26. Subtract : $\frac{9}{17}$ from $\frac{-12}{17}$.

27. Evaluate : $\frac{-7}{27} X \frac{24}{-35}$.

28. Simplify : $\sqrt{12} X \sqrt{3}$

29. Find the cube root of 27000.

30. Simplify and write the answer in exponential form $(3^5 \div 3^8)^5 \times 3^{-5}$.

31. A circle of radius 120m is divided into 8 equal sectors. Find the length of the arc of each of the sectors.

32. Find the product of $2x^2y^2$, $3y^2z$ and $-z^2x^3$.

33. Simplify : $\frac{3m^2}{m} + \frac{2m^4}{m^3}$.

34. Find the quadrants without plotting the points. (5,7), (3, -4), (0,10), (2,0).

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

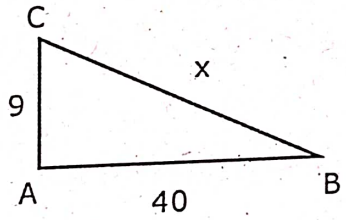
36. Find the C.I for principal Rs. 4000, r = 5%, n=2 years, interest compounded annually.

37. Find the difference in CI and SI for P-8000, r - 5% p.a.n = 3 years.

38. In class VIII, a math club has four members M, A, T and H Find the number of different ways, the club can elect i) a leader ii) a leader and assistant leader.

39. 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. Long is inclined to touch a wall?

40. Find the unknown side of the triangle.



PART - C

7 X 5 = 35

VI Answer the following. (Any 7)

41. Find atleast 5 rational number between $\frac{-3}{4}$ and $\frac{-2}{5}$.

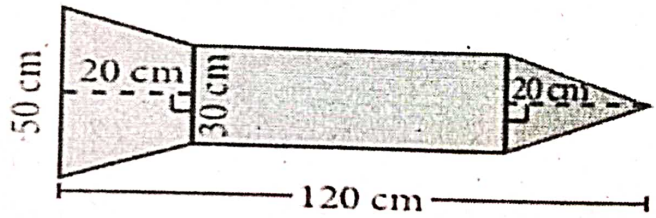
42. Combine the scientific notations :

i) $(7 \times 10^2)(5.2 \times 10^{-7})$ ii) $(3.7 \times 10^{-5})(\times 10^{-3})$.

43. Simplify : $\frac{9^2 X 7^3 X 2^5}{84^3}$.

44. Dhamu fixes a square tile of 30cm on the floor. The tile has a sector design on it as shown in the figure. Find the area of the sector. (π = 3.14)

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



46. Multiply (2x + 5y) and (3x - 4y).

47. A number is increased by 25% and then decreased by 20%. Find the percentage change in that number.

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

49. The product of two rational numbers is $\frac{-2}{3}$. If one number is $\frac{3}{7}$, then find the other.

50. A value of a motor cycle 2 years ago was Rs. 70000. It depreciates at the rate of 4% p.a. Find its present value.

PART - D

VII Answer all the questions. 2 X 8 = 16

51. Construct a quadrilateral PLAY with PL = 7cm, LA = 6 cm, AY = 6 cm, PA = 8 cm and LY = 7 cm. Also find its area. ***(OR)***
Construct a trapezium BOAT in which BO || TA, BO = 7cm, OA = 6 cm, BA =10 cm and TA = 6 cm. Also find its area.

52. Draw the graph of Y = 5X. ***(OR)***
Find the point of intersection of the line joining points (-3, 7) (2, -4) and (4, 6) (-5, -7). Also find the point of intersection of these lines and also their intersection with the axis.