QUARTERLY EXAMINATION - 2023

CLASS : 8 **MATHEMATICS** Reg. No. :

TIME : 2.30 Hrs. MAX. MARKS : 100

I. Choose the best answer. 15x1=15

1. $\frac{-5}{4}$ is a rational number which lies between .....

   a) 0 and $\frac{-5}{4}$ b) -1 and 0 c) -1 and -2 d) -4 and -5

2. The square of 43 ends with the digit .....

   a) 9 b) 6 c) 4 d) 3

3. $(-2)^{-3} \times (-2)^{-2}$ = ...

   a) $\frac{-1}{32}$ b) $\frac{1}{32}$ c) 32 d) -32

4. The Central angle of a semicircle is .....

   a) 90^0 b) 180^0 c) 360^0 d) 270^0

5. Area of a quadrilateral is .....

   a) $\frac{1}{2} \times d \times (h1+h2)$ sq. units b) $\frac{1}{2} \times (h1+h2)$ sq. units

   c) $\frac{1}{2} \times h \times (a+b)$ sq. units d) $\frac{1}{2} \times d1 \times d2$ sq. units

6. 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) $-6x^2y$

7. (-5, -4) lies in which quadrant?

   a) First quadrant b) Fourth quadrant c) Third quadrant d) Second quadrant

8. If 48% of 48=64% of x then x = ...

   a) 64 b) 56 c) 42 d) 36

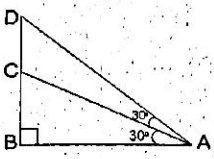
9. What is the marked price of a hat which is bought for Rs. 210 at 16% discount?

   a) Rs. 243 b) Rs. 176 c) Rs. 230 d)Rs. 250

10. The number of conversion periods in a year, if the interest on a principal is compounded every two months is .....

    a) 2 b) 4 c) 6 d) 12

11. In the figure, which of the following statements is true?



    a) AB = BD b) BD < CD c) AC = CD d) BC = CD

12. The hypotenuse of a right angled triangle of sides 12 am and 16 cm is .....

a) 28 cm b) 20 cm c) 24 cm d) 21 cm

13. How many outcomes can you get when you toss three coins once?

a) 6 b) 8 c) 3 d) 2

14. How many 2 digit numbers contain the number 7 ?

a) 10 b) 18 c) 19 d) 20

15. ..... measurements need to draw a quadrilateral.

a) 4 b) 6 c) 5 d) 7

II. Fill in the blanks 5x1=5

16. The rational number ..... does not have a reciprocal.
17. For $a \neq 0$, a^0 is .....
18. The longest chord of a circle is .....
19. Loss or gain percentage is always calculated on the .....
20. x-axis and y-axis intersect at .....

III. Match the following. 5x1=5

21. Square of 7 = πr^2 sq. units.
22. $a^m \times a^n$ = $-12y^3$
23. Area of circle = I quadrant
24. $4y^2 \times (-3y)$ = a^{m+n}
25. (5,7) = 49

IV. Say true or false. 5x1=5

26. The average of two rational numbers lies between them.
27. The square of 75 is 4925.
28. $x^m \div x^n = x^{m-n}$
29. In a right angled triangle, the hypotenuse is the greatest side.
30. (-3, 7) is lies in third quadrant.

V. Answer any ten questions. 10x2=20

31. Compare $\frac{3}{4}$ and $\frac{5}{6}$.
32. Add : $\frac{-6}{6}, \frac{8}{11}, \frac{-12}{11}$.
33. Find the square of 203.
34. Is 400 a perfect cube?
35. Evaluate : $(3^{-1} + 4^{-2} + 5^{-3})^0$

36. Find the area of the sectors whose length of the arc is 48m and the radius is 10.

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

38. 48 is 32% of which number?

39. Find the difference in compound interest and simple interest for principle amount is Rs. 5000 and rate of interest is 4%.

40. State Pythagoras theorem.

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

42. In which quadrant lies the points (-7,2) (+10,-2).

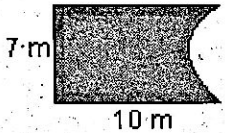
VI. Answer any 6 questions. 6x5=30

43. Arrange the following rational numbers in ascending order $\frac{-5}{12}, \frac{-11}{8}, \frac{-15}{24}, \frac{-7}{-9}, \frac{12}{36}$

44. Find the square root of 1764 by using long division method.

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

46. Find the perimeter and area of the following figure.

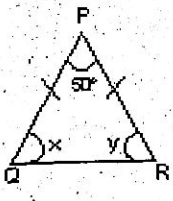


47. Divide: $(5y^3 - 25y^2 + 8y)$ by $5y$.

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

49. If a car is sold for Rs. 200000 from its original price of Rs. 300000, then find the percentage of decrease in the value of the car.

50. Find the unknowns in the following figure.



51. Can a right triangle have sides that measure 5 cm, 12 cm and 13 cm?

52. 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 an assistant leader.

VII. Answer any one of the following : 1x10=10

53. Construct a quadrilateral DEAR with DE=6 cm., EA=5 cm. AR =5.5 cm. RD=5.2 cm. and DA=10 cm . Also find its area.

(or)

Construct the following trapezium with the given measures and also find their area AIMS with , $\overline{AI} \parallel \overline{SM}$ AI = 6 cm, IM = 5 cm. AM = 9 cm and MS = 6.5 cm.

VIII. Answer any one of the following 1x10=10

54. Plot the following points in a graph sheet.

A (5,2), B (-7, -3), C (-2, 4), D (-1, -1), D (0,-5), F (2,0), G (7,-4), H (-4,0), I (2,3), J (8,-4).

(or)

Draw a straight line by joining the points A(-2,6) and B(4,-3) .
