IX Class

MENSURATION

EXERCISE - 1 & 2

I. ONE mark questions :

1. The side of a square is 28 cm. Find its area.
2. The perimeter of a square is increased by 25%. Find the percentage of increase in its area.
3. The length and breadth of a rectangle are 18 cm and 12 cm. Find its area.
4. The length and breadth of a rectangle are 25 cm, 20 cm. Find its area.
5. The area of triangle is 56 cm^2 and its height is 8 cm. Find its base.
6. In a right angled triangle whose sides are 6 cm and 8 cm. Find the maximum area of a rectangle to be constructed in it.
7. Write the formula for area of scalene triangle, explain each letter.
8. The lengths of the perpendicular sides of a right angled triangle are 30cm, 16cm. Find its area.
9. The side of an equilateral triangle is 18 cm. Find its area.
10. The hypotenuse of an isosceles right angled triangle is 10 cm. Find its area.
11. The height of an equilateral triangle is 'x' cm. Find its area in terms of '*x*'.

II. Choose the correct answer :

12. The angles of a triangle are 50^0 , 50^0, 80^0 then it is _____ triangle. [ ]

    a) Equilateral b) Scalene c) Isosceles d) Right angled.

13. Which of the following are the angles of right angled triangle? [ ]

    a) 30^0, 60^0, 90^0 b) 50^0, 40^0, 90^0 c) 108^0, 52^0, 50^0 d) None

14. The side of an equilateral triangle is 'a', then its height [ ]

    a) $\frac{\sqrt{3}}{4}a^2$ b) $\frac{\sqrt{3}}{2}a$ c) $\frac{3}{2}a$ d) $\frac{1}{2}a^2$

15. In a right angled triangle, the sum of other two angles other than right angle [ ]

a) 30^0 b) 60^0 c) 90^0 d) 45^0

16. The angles of a triangle are in the ratio 1 : 2 : 3 then the ratio of sides [ ]

a) $1 : 1 : \sqrt{2}$ b) 1 : 2 : 3 c) 1 : 1 : 1 d) $1 : \sqrt{3} : 2$

17. The difference between any two sides of a triangle is [ ]

a) less than the third side b) greater than the third side

c) equal to the third side d) None

18. One of the angles opposite to equal sides of an isosceles triangle is $37^{0,}$ then the angle opposite to other side is [ ]

a) 53^0 b) 60^0 c) 37^0 d) 106^0

19. The diagonal of a square is $2\sqrt{2}$ cm, then its area [ ]

a) 8 cm^2 b)16 cm^2 c) 4 cm^2 d) None

20. The length and breadth of a rectangle are $x/2$ cm, $x/8$ cm then its area is [ ]

a) x^2 b) $16\,x^2$ c) $\frac{x^2}{8}$ d) $\frac{x^2}{16}$

21. The length and breadth of a rectangle are 12 cm, 5 cm then its diagonal is [ ]

a) 15 cm b) 13 cm c) 17 cm d) 9 cm

III. Fill in the blanks :

22. The angles of a triangle are in the ratio 1 : 1 : 2 then the ratio of sides is _____

23. The area of triangle is 15 cm^2, corresponding height is 5 cm then its base is _____ .

24. The height of an equilateral triangle is _____ times to its side.

25. The area of an isosceles right angled triangle whose hypotenuse 'd' is _____ .

26. The height of an equilateral triangle is $2\sqrt{3}$ cm, then its side is _____ .

27. The sides of a triangle are 5 cm, 8cm, 10 cm then it is _____ triangle.

28. The angle between a diagonal and a side of a square is _____ .

29. The diagonal of a square divides the square into two _____ triangles.

30. The length and breadth of a rectangle are 5 cm and 2 cm, if length and breadth are increased by 1cm, then percentage of increase in its area is _____ .

31. The length and breadth of a rectangle are 30 cm, 20 cm then its semi perimeter is _____ .

IV. Match the following :

	Group – A		**Group – B**
32.	Area of an equilateral triangle whose side 'a'	[ ]	A) $\frac{d^2}{4}$
33.	Area of scalene triangle whose sides are a, b and c	[ ]	B) $(l + b)$
34.	Area of isosceles right angled triangle whose hypotenuse is d	[ ]	C) $\frac{\sqrt{3}}{4}a^2$
35.	The area of a square whose diagonal is d	[ ]	D) $\frac{l+b}{2}$
36.	Semi perimeter of a rectangle	[ ]	E) $\frac{d^2}{2}$
			F) $\frac{a+b+c}{2}$
			G) $\sqrt{s(s-a)(s-b)(s-c)}$