ST. LAWRENCE HIGH SCHOOL

TOPIC –Area & Perimeter

Subject : Mathematics **Class-9** **F. M. 15**

WORKSHEET NO. - 3 **Second term** **Date: 26.06.21**

Q.1) Choose the correct option: **(1x15=15)**

i) The length of one side of a rhombus is 20 cm and length of one diagonal of rhombus is 24 cm. Then its area will be

a) 483 sq.cm b) 348 sq.cm c)843 sq.cm d)384 sq.cm

ii) In an equilateral triangle three perpendiculars are drawn on the sides from a point within the triangle. If the length of the perpendiculars are 8cm, 10cm and 12 cm, then the length of the side of the triangle is

a) $10\sqrt{3}$ cm b)$20\sqrt{3}$ cm c)$30\sqrt{3}$ cm d)$40\sqrt{3}$ cm

iii) The length of a diagonal of a rhombus is 6 cm. IF the area of the rhombus is 24 sq.cm, then the length of its side is

a)5 cm b)2 cm c)3 cm d)4 cm

iv) The perimeter of a rhombus is p and area is A and the sum of its two diagonals is m. The value of $\frac{p^2+16A}{m^2}$ is

a)16 b) 8 c) 2 d) 4

v)The perimeter of a rhombus is 40 m, and length of its one diagonal is 16 m. The area of the rhombus is

a)160 sq.m b)96 sq.m c)192 sq.m d)80 sq.m

vi) The length of a rectangular field is 3 m greater than its breadth. If the area of the field is numerically equal to its perimeter, then its area will be

a)15 sq.m b)18 sq.m c) 21 sq.m d) 24 sq.m

vii)The height of an equilateral triangle of side 4 cm is

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

viii)The area of an equilateral triangle of side "2a" is

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

ix) The area of a rhombus is 96 sq.cm and length of its one diagonal is 12 cm. Then the length of the other diagonal is

a)8 cm b) 6 cm c) 16 cm d) 12 cm

x)If the side of a square is equal to the side of an equilateral triangle, then the ratio of their areas is

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

xi)The height of an equilateral triangle of side 4 cm is

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

xii) The area of a rhombus is 96 sq. cm. If the length of its one diagonal is 12 cm then the length of the other diagonal is

a)8 cm b) 6 cm c) 16 cm d) 12 cm

xiii) If the area of right angled isosceles triangle is 8 sq. cm, then its length of the hypotenuse is _____

a)$\sqrt{26}$ cm b) $\sqrt{28}$cm c)$\sqrt{30}$cm d)$\sqrt{32}$cm

xiv) If the perimeter of an equilateral triangle is 60m, then its area will be _____

a)$50\sqrt{3}$ sq.m b) $100\sqrt{3}$ sq.m c) $75\sqrt{2}$sq.m d)$100\sqrt{2}$sq.m

xv)If the area of an equilateral triangle is $9\sqrt{3}$sq. cm, then length of its each side is _____

a) 6 cm b)3 cm c)9 cm d)12 cm

-ChaitaliRoy