**Aarambh Classes**

Class X

**MATHS WORKSHEET**

**VOLUME AND SURFACE AREA**

1 mark question :

1. Curved surface area of a cylinder of height 5 cm is 94.2 cm2  .Radius of the cylinder is () ;
2. 2 cm (ii) 3 cm (iii) 2.9 cm (iv) 6 cm .

2 . The radius of a sphere (in cm ) whose volume is 12 cm3 ,is :

1. 3 (b) 3 (c ) 3 2/3  (d) 31/3

3 . Two cones have their heights in the ratio 1 : 3 and radii in the ratio 3:1 .What is the ratio of their volumes ?

4. A solid spherical ball fits exactly inside the cubical box of side 2a .The volume of the ball is :

1. (b) (C) (d)

5. A rectangular sheet of paper 40 cm x 22 cm ,is rolled to form a hollow cylinder of height 40 cm .The radius of the cylinder (in cm ) is :

(a)3.5 (b) 7 © (d) 5

2 Mark questions :

6 . A cone and a cylinder have the same radii but the height of the cone is 3 times that of the cylinder .Find the ratio of their volumes .

7. The curved surface area of a right circular cone is 12320 cm2 .If the radius of the base is 56 cm ,then find its height .

**3 marks questions :**

8 . A solid right circular cone of height 60cm and radius 30 cm is dropped in aright circular cylinder full of water of height 180 cm and radius 60 cm .Find the volume of water left in the cylinder ,in cubic metres .

9 . An empty cone of radius 3 cm and height 12 cm .Ice cream is filled in it so that lower part of the cone which is of the volume of the cone is unfilled but hemisphere is formed on the top .Find volume of the icecream .()

**4/5/6 marks questions :**

**10 .** Water is being pumped out through acircular pipe whose internal diameter is 8 cm .If the rate of flow of water is 80 cm/s , then how many litres of water is being pumped out through this pipe in one hour ?

11 . Due to heavy floods in a state ,thousands were rendered homeless .50 schools collectively decided to provide place and the canvas for 1500 tents and share the whole expenditure equally .the lower part of each tent is cylindrical with base radius 2.8 m and height 3.5 m and the upper part is conical with the same base radius but of height 2.1 m .If the canvas used to make the tents costs rs 120 per m2 ,find the amount shared by each school to set up the tents .