**Aarambh Classes**

**Class IX**

**MATHS TEST**

**VOLUME AND SURFACE AREA**

Time ; 1hour M.Marks : 25

**3 marks each :**

1. What length of tarpaulin 3 m wide will be required to make conical tent of height 8 m and base radius 6 m ?Assume that the extra length of material that will be required for stitching margins and wastage in cutting is aproximately 20 cm .()

2. A joker’s cap is in the form of aright circular cone of base radius 7 cm and height 24 cm .Find the area of the sheet required to make 10 such caps .

3. The diameter of the moon is approximately one fourth of the diameter of the earth.Find the ratio of their surface areas .

4. A right circular cylinder just enclosesa sphere of radius r .Find (i)surface area of the sphere

(ii)curved surface area of the cylinder ,(iii) ratio of the areas obtained in (I)and (ii).

5. A right triangle ABC with sides 5 cm,12 cm and 13 cm is revolved about the side 12 cm .Find the volume of the solid so obtained .

6. Monica has a piece of canvas whose area is 551 m .She uses it to hve a conical ten made ,with a base radius of 7 m .Assuming that all the stitching margins and the wastage incurred while cutting ,amounts to approximately 1 m ,find the volume of the tent that can be made with it . **(4 marks )**

7. A shot-putt is a metallic sphere of radius 4.9 cm .If the density of the metal is 7.8 g/cm,find the mass of the shot –putt .

8. A hemispherical tank is made up of iron sheeet 1 cm thick .If the inner radius is 1 m ,then find the volume of the iron used to make the tank .