Class-X **Mathematics (Ch-13.Surface Areas and Volumes)**

Work Sheet (Module - 2/4)

1. A solid is in the form of a cylinder with hemispherical ends. The total height of the solid is 20 cm and the diameter of the cylinder is 7 cm. Find the volume of the solid. (Use $\pi = \frac{22}{7}$)

2. A model is made of a right circular cylinder and two right circular cones are attached at its two ends. The diameter of the model is 3.5 cm and its total length is 20 cm. If each cone has a height 5 cm. Find the volume of this model. (Use $\pi = \frac{22}{7}$)

3. A tent is in the shape of a cylinder surmounted by a conical top of same diameter. If the height and diameter of the cylindrical part are 2.1 m and 3 m respectively and the height of the conical part is 2 m, find the volume of air inside the tent. (Use $\pi = \frac{22}{7}$)

4. The top and bottom of a cubical block of side 7 cm is surmounted by hemispheres of diameter 7cm. Find the volume of the solid so formed. (Use $\pi = \frac{22}{7}$)

5. A solid is in the shape of a cone surmounted on a hemisphere, the radius of each of them is 3.5 cm. If the total height of the solid is 9.5 cm. Find the volume of the solid. (Use $\pi = \frac{22}{7}$)

6. A wooden article was made by scooping out a hemisphere from each end of the cylinder. If the height of the cylinder is 10 cm and its base diameter is 7 cm, find the volume the article. (Use $\pi = \frac{22}{7}$)

7. A solid toy is in the form of a cylinder with a hemisphere at one end and a cone on the other end. If the height of the cylinder is 6 cm and that of the cone is 4 cm and the diameter of cone, cylinder and hemisphere is 4 cm. Find the volume of the solid. (Use $\pi = 3.14$)

8. A solid is made by fixing hemispheres on each face of the cube of side 7 cm. If the the base diameter of each hemisphere is 7 cm, find the volume of the solid. (Use $\pi = \frac{22}{7}$)