SURFACE AREA AND VOLUME <IX>

1. Mohan built a cubical water tank with lid, with each outer edge 1.5m long. He gets outer surface of the tank excluding the base covered with square tiles of side 25cm. Find how much he would spend for the tiles, if the cost of tiles is Rs. 360 over dozen.

2. A cylindrical pillar is 50cm in diameter and 3.5m in height. Find the cost of painting the curved surface of the pillar at the rate of $12.50/m^2$.

3. The height of a cone is 16cm and its base radius is 12cm. Find TSA and CSA.

4. A corn cob shaped like a cone has the radius of its broadest end as 2.1cm and length as 20cm. If each $1cm^2$ of the surface of the cob contains an average of four grains find the number of grains on the cob.

5. A hemispherical dome of a building needs to be painted. If the circumference of the base dome is 17.6m. Find the cost of painting is Rs. 5 per $100cm^2$.

6. The capacity of a cuboidal tank is 50,000 liter. Find the breadth of the tank, if its length and depth are respectively 2.5m and 10m.

7. A river 3m deep and 40m wide is flowing at the rate of 2km/h. How much water will fall into the sea in a minute?

8. The capacity of a closed cylindrical vessel of height 1m is 15.4 liters. How many square meters of metal sheet should be needed to make it.

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

10. The diameter of a sphere is decreased by 25%. By what % does its curved surface area decrease.