Worksheet 1

Class: 9th   **Maximum Marks: 40**
Ch: Surface Area and Volume   **Duration: 1hr30min**

1. A cuboidal container open at the top has length 50cm, breadth 40 cm and height 30cm. It is made from a sheet of tin. Find the cost of tin required for making 10 such containers if the cost of tin sheet is 20 rupees per square metres.

2. A cylindrical pillar us 60 cm in diameter and has height of 4.9 m. Find the cost of painting the curved surface of the pillar at the rate of Rs 8.20 per square metres.

3. A conical tent is made of tarpaulin 1.5 m wide. Vertical height of the conical tent is 4m and the base diameter is 6m. Find the length of tarpaulin used, assuming that 10% extra material is required for stitching margins and wastage in cutting.

4. A right circular cylinder just encloses a sphere. If the height of the cylinder is 21cm, then find the surface area of the cylinder.

5. The capacity of a cuboidal water reservoir is 450000 litres of water. Find the length of reservoir if it's breadth and height are respectively 5m and 3m.

6. The area of base of a right circular metallic cylinder of height 20cm is 307cm². Find the weight of cylinder in kg if 2cm³of metal weights 5grams.

7. The volume of space inside a right circular conical tent is 22 m³ and it's vertical height is 300cm. Find the curved surface area of the conical tent.

8. A spherical tent is made up of a metallic sheet 0.01m thick. If the inner radius is 99cm, find the volume of metal sheet used.

9. Twenty seven iron spheres each of radius "r" & surface area S are melted to form a sphere with surface area S'. Find the
   (a) Radius "r" if the new sphere.
   (b) Ratio of S and S' .

10. A village having a population of 4000 requires 150 litres of water per head per day. It has a tank measuring 20m x 15m x6m. For how many days will the water of this tank last?