**Self-Assignment \_ 1**

**Topic: Mesuration**

**Class: 10th Max.Marks: 25**

**Answer all questions. Each question carries ½ mark. 10 × ½ = 5M**

1. The surface area of a sphere is 616cm2. Find its radius?
2. The radius and height of a conical vessel are 7cm and 25 cm respectively. Find its slant height?
3. Find the ratio of L.S.A and T.S.A of a cube?
4. A cone is made from a sector of radius 5cm. What is the slant height of the cone?
5. A cone and a hemisphere have equal bases and equal volumes, then find the ratio of their heights?
6. The length of the diagonal of a cube is 14√3cm. Find its edge?
7. A shuttle cock is a combination of \_\_\_\_\_\_\_\_\_.
8. What the shape of vertical cross section of a cone?
9. Find the total surface area of a hemi sphere of radius 10cm? (Use π =3.14)
10. John says, “The T.S.A of sphere is 4πr2. So T.S.A of hemi sphere is 2πr2” . Do you agree with him? Justify.

**Answer all questions. Each question parties 1 mark. 4 × 1 = 4M**

1. The height of a cone is 15cm. If it’s volume is 1570cc, then find radius of its base?
2. The radii of two cylinders are in the ratio 3 : 5. If their heights are in the ratio 2: 3, find the ratio of their curved surface areas?
3. A match box measure 4cm × 2.5cm × 1.5cm. Find the volume of packet containing 12 such boxes?
4. Two solid hemi spheres of same base radius ‘r’ are joined together along their bases. Find the C.S.A of new solid?

**Answer all questions. Each question carries 2 marks. 4 × 2 = 8M**

1. A solid metallic spherical ball of diameter 6cm is melted and recast into a cone with diameter of the base 12cm. Find the height of the cone?
2. A cuboidal water tank is 6m long, 5m wide and 4.5m deep. How many litre of water can it hold?
3. The volume of a cylinder is 49896cu.cm. and it’s C.S.A is 4752 sq.cm. then calculate it’s radius?
4. Find total surface area of hemisphere of radius 10cm? (Use π = 3.14)
5. Two cubes of volume 64cm3 are joined end to end together. Find the total surface area of resulting cuboid?

**Answer all questions. Each question carries 4 marks. 2 × 4 = 8 M**

1. A medicine capsule is in the shape of cylinder with two yemi spheres stuck to each of its ends. The length of the capsule is 14mm and the width is 5mm. Find its surface area?

Or

A hemi sphere is cut out from one face of cubical wooden block such that the diameter of the hemi sphere is equal to the length of cube. Determine the surface area of remaining solid?

1. A spherical marbles of diameter 1.4 cm are dropped into a cylindrical beaker of diameter 7cm, which contains some water. Find the number of marbles that should be dropped in to the beaker, so that water level rises by 5.6cm?

Or

How many silver coins , 1.75cm in diameter and thickness 2mm, need to be melted to form a cuboid of dimensions 5.5cm × 10cm × 3.5cm?