SANGHAMITRA SCHOOL

Class : IX **Revision paper – Surface Areas & Volumes**

Subject : Math

1. **I n a cylinder, the radius is doubled, and the height is halved; What will be the change in curved surface area.**
2. **The volume and surface area of a certain solid hemisphere are numerically equal.What is the diameter of the hemisphere?**
3. **How many spheres 12cm in diameter can be made from a metallic cylinder of diameter 8cm and a height of 90cm?**
4. **The surface area of a sphere of radius 5 cm is five times the area of the curved surface area of a cone of radius 4cm. Find the height of the cone.**

5 . The internal and external diameters of hollow hemispherical vessel are 24 cm and 25 cm respectively. If the cost of painting 1cm2 surface area is Rs. 1.5, findthe total cost of painting the vessel all over.

6 Que 3. The diameter of a sphere is decreased by 25%. By what per cent does its curved surface area decrease?

The radius and height of a cone are in the ratio 4 : 3. The area of the base is $154cm^2$. Find the area of the curved surface.

A sphere, cylinder and cone are of the same radius and same height. Find the ratio of their curved surfaces.

A hemispherical bowl of internal diameter 36cm contains a liquid. This liquid is to be filled in cylindrical bottles of radius 3cm and height 6cm. How many bottles are required to empty the bowl?

A hemisphere of lead of radius 8cm is cast into a right circular cone of base radius 6cm. Determine the height of the cone.

10. The radius of a hemisphere is r. What is its volume?

11. If the radius of a sphere is 2 r, then what is its volume?

12. If the radius of a sphere is doubled then what is the ratio of their volumes?

13. The volume of the largest right circular cone that can be fitted in a cube whose edge is 2r equals to the volume of a hemisphere radius r.

14 . A right triangle with sides 6 cm, 8 cm and 10 cm is revolved about the side 8 cm. Find the volume and the curved surface of the solid so formed.

15 . The volume of two hemispheres are in the ratio 8 : 27. Find the ratio of their radii.