G. N. National Public School, Gorakhnath, GKP.

Class - IX MATHS Chapter - 13

Surface Areas and Volumes

Assignment Part-3

Q.1- The external diameter of an iron pipe is 25cm and its length is 20 cm. If the thickness of the pipe is 1 cm, find the total surface area of the pipe.

Q.2- The sum of radius of the base and height of a cylinder is 37 m. If the total surface area of the cylinder is 1628 m^2, find the curved surface area.

Q.3 How much cardboard is required to make 35 penholders in the shape of cylinders, each of radius 3cm and height 10.5cm?

Q.4 The radii of two cylinders are in the ratio 2:3 and their heights are in the ratio 5:3. Calculate the ratio of their ~~volumes~~ base and the ratio of their curved surfaces.

Q.5- 30 circular plates, each of radius 14 cm and thickness 3cm, are placed one above the other to form a ~~cylinder~~ cylindrical solid. Find the total surface area.

Q.6- There are 20 cylindrical pillars in a building, each having a diameter of 50 cm and height 4m. Find the cost of cleaning them at Rs 14 per m^2.

Q.7- The curved surface area of a cylinder is 4400 cm^2 and the circumference of its base is 110cm. Find the height and radius of the cylinder.

Q.8- The total surface area of a cylinder is 462 cm^2. Its curved surface area is one third of its total surface area. Find radius and height of the cylinder.

Q.9- A rectangular sheet of paper 30 cm × 18 cm can be transformed into the curved surface of a right circular cylinder in two ways namely, either by rolling the paper along its length or by ~~rolling~~ rolling it along its breadth. Find the ratio of the curved surface area of the two cylinders, thus formed.

Q.10- It costs Rs 3300 to paint the inner curved surface of a cylindrical vessel 10m deep at the rate of Rs 30 per m^2. Find the

(i) inner curved surface area of the vessel.

(ii) inner radius of the base.