

**Assignment****ABHYAS Academy,**Near Govt. College, Nishat Cinema Road,
Ambala Cantt., Haryana (India)

Phone: +91-171-2631595, +91-9416541198

e-Mail: anusethi1968@yahoo.com

www.abhyasonline.in

Date: __ / __ / __

Name: _____

Max Marks: 25

Section- A (Two Marks Each)

- 1 The diameters of the two circular ends of a bucket are 44 cm and 24 cm. the height of the bucket is 35 cm. what is the capacity of the bucket?
- 2 A cone of radius 4 cm is divided into two parts by drawing a plane through the midpoints of its axis and parallel to its base. What is the ratio of the volume of the two parts?
- 3 Rainwater from a roof of dimensions 22 m x20 m drains into a cylindrical vessel having diameter of base as 2 m and height as 3.5m. If the rainwater collected from the roof just fills the cylindrical vessel. Find the rainfall (in cm).
- 4 Water flows through a cylindrical pipe of inner radius 3.5 cm at the rate of $(192.50 \times 60 \times 1000)$ cm³ per hour. Find the rate of flow (in km/hr).

Section-B (Three Marks Each)

- 5 The inner radius of a cylindrical pipe is 1 cm. water flows through it at the rate of 90 cm per minute into an empty cylindrical tank of base radius 30 cm. What would be the rise in the water level of the tank in half an hour?
- 6 A milk container of height 16 cm is made of metal sheet in the form of a frustum of a cone with radii of its lower and upper ends as 8 cm and 20 cm. respectively. Find the cost of milk at the rate of Rs 42 per litre, which the container can hold.
- 7 Water flows at the rate of 10m minute through a cylindrical pipe of diameter 5 mm. How long would it take to fill a conical vessel of base diameter 40 cm and depth 24 cm?

Section-C (Four Marks Each)

- 8 The height of a cone is 30 cm. A small cone is cut off the top by a plane parallel to the base of the give cone. If the volume of the smaller cone is $\frac{1}{27}$ of the volume of the given cone, at what height above the base, has the section been made?
- 9 The slant height of a frustum of a cone is 4 cm and the circumferences of its circular ends are 18 cm and 6 cm. Find the curved surface area of the frustum.