

Model Question Paper**Mensuration - Part II**

10th Standard

MathsReg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 01:00:00 Hrs

Total Marks : 40

5 x 1 = 5

Part-A

- 1) Radius and height of a right circular cone and that of a right circular cylinder are respectively, equal. If the volume of the cylinder is 120 cm^3 , then the volume of the cone is equal to
(a) 1200 cm^3 (b) 360 cm^3 (c) 40 cm^3 (d) 90 cm^3
- 2) If the diameter and height of a right circular cone are 12 cm and 8 cm respectively, then the slant height is
(a) 10cm (b) 20cm (c) 30cm (d) 96cm
- 3) If the circumference at the base of a right circular cone and the slant height are $120 \pi \text{ cm}$ and 10 cm respectively, then the curved surface area of the cone is equal to
(a) $1200 \pi \text{ cm}^2$ (b) $600 \pi \text{ cm}^2$ (c) $300 \pi \text{ cm}^2$ (d) 600 cm^2
- 4) If the volume and the base area of a right circular cone are $48 \pi \text{ cm}^3$ and $12 \pi \text{ cm}^2$ respectively, then the height of the cone is equal to
(a) 6cm (b) 8cm (c) 10cm (d) 12cm
- 5) If the height and the base area of a right circular cone are 5 cm and 48 sq. cm respectively, then the volume of the cone is equal to
(a) 240 cm^3 (b) 120 cm^3 (c) 80 cm^3 (d) 480 cm^3

Part-B

5 x 2 = 10

- 6) A solid right circular cylinder has radius of 14 cm and height of 8 cm. Find its curved surface area and total surface area.
- 7) The radii of two right circular cylinders are in the ratio of 3 : 2 and their heights are in the ratio 5:3. Find the ratio of their curved surface areas.
- 8) If the circumference of the base of a solid right circular cone is 236 cm and its slant height is 12cm, find its curved surface area.
- 9) If the curved surface area of solid a sphere is 98.56 cm^2 , then find the radius of the sphere..
- 10) If the curved surface area of a solid hemisphere is 2772 sq.cm, then find its total surface area.

Part-C

5 x 5 = 25

- 11) The total surface area of a solid right circular cylinder is 660 sq.cm. If its diameter of the base is 14 cm, find the height and curved surface area of the cylinder.
- 12) Curved surface area and circumference at the base of a solid right circular cylinder are 4400sq.cm and 110 cm respectively. Find its height and diameter
- 13) A mansion has 12 right cylindrical pillars each having radius 50 cm and height 3.5 m. Find the cost to paint the lateral surface of the pillars at Rs 20 per square metre.
- 14) The total surface area of a solid right circular cylinder is 231 cm^2 . Its curved surface area is two thirds of the total surface area. Find the radius and height of the cylinder
- 15) The total surface area of a solid right circular cylinder is 1540 cm^2 . If the height is four times the radius of the base, then find the height of the cylinder.`
