MENSURATION

SURFACE AREA OF CUBE, CUBOID AND CYLINDER

EXERCISE

- **Q.1** The outer surface of a cube of edge 5m is painted. if the cost of painting is *⊢*1 per 100 cm², find the total cost of painting the cube.
- Q.2 A cylindrical roller is used to level a rectangular playground. The length of the roller is 3.5 m and its diameter is 2.8 m. if the roller rolls over 200 times to completely cover the playground, find the area of the playground.
- **Q.3** A cylindrical pipe has an outer diameter of 1.4m and an inner diameter of 1.12m. Its length is 10m. It has to be painted on the outer and inner surfaces as well as on the rims at the top and bottom. If the rate of painting is 0.01 per cm², find the cost of painting the pipe.
- Q.4 The diameter of the driving wheel of a bus is 140 cm. How many revolutions per minute must the wheel make in order to keep a speed of 66 kmph?
- **Q.5** A wheel makes 1000 revolutions in covering a distance of 88 km. Find the radius of the wheel.
- **Q.6** The inner circumference of a circular race trak, 14 m wide, is 440 m. Find the radius of the outer circle.
- **Q.7** A sector of 120° , cut out from a circle, has an area of $9\frac{3}{7}$ sq. cm. Find the radius of the cirlce.
- Q.8 Find the ratio of the areas of the incircle and circumcircle of a square.

ANSWER KEY

- **2.** 6160 m²
- **3**. ⊢ 8030.88
- **4.** 250
- **5.** 14 m
- **6.** 84 m
- **7.** 3 cm
- **8.** 1:2