Mensuration: Worksheet -8

1. The area of the curved surface of a right circular cone of diameter 14 cm is 550 cm^2. The height of the cone is: _ _ _ _ _ _ _ _ [ ]
   a) 25 cm b) 22 cm c) 23 cm d) 24 cm

2. If a solid right circular cylinder made of iron is heated to increase its radius and height by 1% each then the volume of the solid is increased by [ ]
   a) 1.01 % b) 3.03 % c) 2.01 % d) 1.2 %

3. Two cones A and B have their base radii in the ratio of 4 :3 and their heights in the ratio 3 : 4. The ratio of volumes of cone A to that of cone B is : [ ]
   a) 4 : 3 b) 3 : 4 c) 2 : 3 d) 1 : 2

4. The volume of a right circular cone of height 10 cm and radius of base 6 cm is _ _ _ _ _ _ _ _.

5. The ratio of the radii of two cylinders is 1 : $\sqrt{3}$ and their heights are in the ratio 2 : 3. The ratio of their volumes is _ _ _ _ _ _ _ _ [ ]
   a) 1 : 9 b) 2 : 9 c) 4 : 9 d) 5 : 9

6. A metal pipe has a external diameter of 4 cm and internal diameter of 3 cm and is 20 cm long then the volume of the metal used:_ [ ]
   a) 22 cm^3 b) 110 cm^3 c) 220 cm^3 d) 440 cm^3

7. From a right circular cylinder of radius 10 cm and height 21 cm a right circular cone of same base radius is removed. If the volume of the remaining portion is 4,400 cm^3, then the height of the cone removed is : _ [ ]
   a) 15 cm b) 18 cm c) 21 cm d) 24 cm

8. If the radius and slant height of a right circular cone are 4 cm and 7 cm respectively then its curved surface area will be [ ]
   a) 78 cm^2 b) 87 cm^2 c) 88 cm^2 d) 74 cm^2

9. The radius and height of a cone are each increased by 20%, then the volume of the cone is increased by _ _ _ _ _ _ _ _ _ [ ]

a) 20% b) 40% c) 60% d) 72.8 %

10. A conical container of base radius 'r' and height 'h' is full of water which is poured into a cylindrical container of radius r, then it will occupy a height equal to _ _ _ _ _ _ _ _ _ [ ]

a) 3 h b) $\frac{h}{3}$ c) $\frac{rh}{3}$ d) $\frac{3h}{r}$