NAME :

CLASS & SEC. :

7 MENSURATION

"Nature is an infinite sphere of which the centre is everywhere and the circumference nowhere". - *Blaise Pascal*

Multiple choice questions

1. The curved surface area of a right circular cone of height 15 cm and base diameter 16 cm is
   (A) 60π cm^2 (B) 68π cm^2 (C) 120π cm^2 (D) 136π cm^2
2. If two solid hemispheres of same base radius r units are joined together along their bases, then curved surface area of this new solid is
   (A) $4\pi r^2$ sq. units (B) $6\pi r^2$ sq. units (C) $3\pi r^2$ sq. units (D) $8\pi r^2$ sq. units
3. The height of a right circular cone whose radius is 5 cm and slant height is 13 cm will be
   (A) 12 cm (B) 10 cm (C) 13 cm (D) 5 cm
4. If the radius of the base of a right circular cylinder is halved keeping the same height, then the ratio of the volume of the cylinder thus obtained to the volume of original cylinder is
   (A) 1:2 (B) 1:4 (C) 1:6 (D) 1:8
5. The total surface area of a cylinder whose radius is $\frac{1}{3}$ of its height is
   (A) $\frac{9\pi h^2}{8}$ sq.units (B) $24\pi h^2$ sq.units (C) $\frac{8\pi h^2}{9}$ sq.units (D) $\frac{56\pi h^2}{9}$ sq.units
6. In a hollow cylinder, the sum of the external and internal radii is 14 cm and the width is 4 cm. If its height is 20 cm, the volume of the material in it is
   (A) 5600π cm^3 (B) 1120π cm^3 (C) 56π cm^3 (D) 3600π cm^3
7. If the radius of the base of a cone is tripled and the height is doubled then the volume is
   (A) made 6 times (B) made 18 times (C) made 12 times (D) unchanged
8. The total surface area of a hemi-sphere is how much times the square of its radius.
   (A) π (B) 4π (C) 3π (D) 2π
9. A solid sphere of radius x cm is melted and cast into a shape of a solid cone of same radius. The height of the cone is
   (A) $3x$ cm (B) x cm (C) $4x$ cm (D) $2x$ cm
10. A frustum of a right circular cone is of height 16cm with radii of its ends as 8cm and 20cm. Then, the volume of the frustum is
    (A) 3328π cm^3 (B) 3228π cm^3 (C) 3240π cm^3 (D) 3340π cm^3
11. A shuttle cock used for playing badminton has the shape of the combination of
    (A) a cylinder and a sphere (B) a hemisphere and a cone
    (C) a sphere and a cone (D) frustum of a cone and a hemisphere
12. A spherical ball of radius r_1 units is melted to make 8 new identical balls each of radius r_2 units. Then $r_1 : r_2$ is
    (A) 2:1 (B) 1:2 (C) 4:1 (D) 1:4
13. The volume (in cm^3) of the greatest sphere that can be cut off from a cylindrical log of wood of base radius 1 cm and height 5 cm is
    (A) $\frac{4}{3}\pi$ (B) $\frac{10}{3}\pi$ (C) 5π (D) $\frac{20}{3}\pi$
14. The height and radius of the cone of which the frustum is a part are h_1 units and r_1 units respectively. Height of the frustum is h_2 units and radius of the smaller base is r_2 units. If $h_2 : h_1 = 1:2$ then $r_2 : r_1$ is
    (A) 1 : 3 (B) 1 : 2 (C) 2 : 1 (D) 3 : 1
15. The ratio of the volumes of a cylinder, a cone and a sphere, if each has the same diameter and same height is
    (A) 1:2:3 (B) 2:1:3 (C) 1:3:2 (D) 3:1:2

P.LAKSHMANAN,
BT ASSISTANT,
GHSS., PAPPAPATTI,
MUSIRI TK, TRICHY DT.
9843954265.

LIVEWORKSHEETS