1 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

2 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

3 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

4 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) $3 : 1$

5 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

6 The curved surface area of a right circular cone of height 15 cm and base diameter 16 cm is

   (A) 60π cm²   (B) 68π cm²   (C) 120π cm²   (D) 136π cm²

7 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

8 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

9 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

10 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