ONE MARK TEST

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ENGLISH MEDIUM **LESSON – 7** **TEST - 3**

1 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

2 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

3 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

4 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

5 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

6 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

7 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

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8 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) $\frac{20}{3}\pi$

9 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

10 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

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