

Revision

Post-Mid Term

Date: 02/12/25

Surface Area & Volume

- ① A cone is 8.4 cm high and the radius of its base is 2.1 cm. It is melted and recast into a sphere. Find the radius of the sphere.
- ② There are two cones. The curved surface area of one is twice that of other. The slant height of the latter is twice that of the former. Find the ratio of their radii.
- ③ The diameters of the internal and external surfaces of a hollow hemispherical shell are 6 cm and 10 cm respectively. If it is melted and recast into a solid cone of diameter 14 cm, find the height of the cone.
- ④ The total surface area of a cone whose radius is $\frac{r}{2}$ units and slant height is $2l$ units is —
- (a) $2\pi rl$ sq. units
- (b) $\pi r(l+r)$ sq. units
- (c) $\pi r(l+\frac{r}{4})$ sq. units
- (d) $2\pi r(l+r)$ sq. units