CHAPTER-12 | SURFACE AREAS AND VOLUMES

QUIZ PART-05

1. A solid pole has two cylinders. The mass of the pole is:
   A. 892.26 kg
   B. 800 kg
   C. 850 kg
   D. 900 kg (A)

Explanation : Volume = 111532.8 cm^3, mass = volume × 8 g.

2. A cone and hemisphere are in a cylinder. Volume of water left is:
   A. 10000 cm^3
   B. 15000 cm^3
   C. 20000 cm^3
   D. 25000 cm^3 (B)

Explanation: Subtract volumes of cone and hemisphere from cylinder volume.

3. A spherical glass vessel with a cylindrical neck has volume:
   A. 346.51 cm^3 B. 321.39 cm^3
   C. 250.12 cm^3 D. 360.25 cm^3 (A)

Explanation: Volume = Volume of sphere + cylinder = 346.51 cm^3.

4. Volume of cone (height 14 cm, radius 7 cm):
   A. 200 cm^3
   B. 300 cm^3
   C. 400 cm^3
   D. 500 cm^3 (B)

Explanation: Volume = 1/3 $\pi r^2 h$ = 300 cm^3.

5. Volume of cylinder (radius 10 cm, height 20 cm):
   A. 3140 cm^3
   B. 314 cm^3
   C. 500 cm^3
   D. 1000 cm^3 (A)

Explanation : Volume = $\pi r^2 h$ = 3140 cm^3.

6. Volume of hemisphere (radius 7 cm):
   A. 180 cm^3
   B. 220 cm^3
   C. 240 cm^3
   D. 250 cm^3 (B)

Explanation : Volume = 2/3 πr^3 = 220 cm^3.

7. Surface area of sphere (radius 5 cm):
   A. 100π cm^2
   B. 120π cm^2
   C. 150π cm^2
   D. 200π cm^2 (A)

Explanation : Surface area = $4\pi r^2$ = 100π cm^2.

8. Slant height of cone (radius 6 cm, height 8 cm):
   A. 10 cm
   B. 12 cm
   C. 14 cm
   D. 16 cm (A)

Explanation : Slant height l = $\sqrt{(8^2 + 6^2)}$ = 10 cm.

9. Volume of sphere (radius 5 cm):
   A. 523.33 cm^3
   B. 522.3 cm^3
   C. 500 cm^3
   D. 400 cm^3 (A)

Explanation : Volume = 4/3 πr^3 = 523.33 cm^3.

10. Volume of cone (height 15 cm, radius 10 cm):
    A. 1570 cm^3
    B. 1500 cm^3
    C. 1800 cm^3
    D. 1900 cm^3 (B)

Explanation : Volume = 1/3 $\pi r^2 h$ = 1500 cm^3.