Surface Areas and Volumes : Worksheet -7

1. The area of the ring is _ _ _ _ _ _ _ _ _ _ _ _ _ ( )
   (a) $\pi(R^2 - r^2)$ (b) $\pi(R^3 - r^3)$ (c) $\pi(R - r)$ (d) $\pi(R^2 - r)$

2. Volume of the hemi hollow spherical vessel is _ _ _ _ _ _ _. ( )
   (a) $\frac{4}{3}\pi(R^3 - r^3)$ (b) $\frac{2}{3}\pi(R^3 - r^3)$ (c) $\frac{1}{3}\pi(R^3 - r^3)$ (d) $\pi(R^3 - r^3)$

3. The total surface area of the hemi spherical vessel is _ _ _ _ ( )
   (a) $3\pi R^2 - \pi r^2$ (b) $3(\pi R^2 - \pi r^2)$ (c) $\pi R^2 - 2\pi r^2$ (c) $\pi R^2 - \pi r^2$

4. If $4\pi r^2 = \frac{4}{3}\pi r^3$ (in its value), then r = _ _ _ _ _ _ _ _ ( )
   (a) 1 (b) 2 (c) 3 (d) 4

5. If r = 3 units, then S.A. of sphere is _ _ _ _ _ _ _ _ ( )
   (a) $113\frac{1}{7}$ cu. Units (b) $112\frac{1}{7}$ c.c.
   (c) $111\frac{1}{7}$ c.c. (d) $110\frac{1}{7}$

6. If r = 3 units then volume of the sphere is _ _ _ _ _ _ . ( )
   (a) $113\frac{1}{7}$ cu. Units (b) $112\frac{1}{7}$ c.c.
   (c) $111\frac{1}{7}$ c.c. (d) $110\frac{1}{7}$

7. If r = $\frac{1}{2}$ cm, then surface area of the sphere is _ _ _ _ _ _ _. ( )
   (a) π sq. cm. (b) 2π sq. cm.
   (c) 3π sq. cm. (d) 4π sq. cm.

8. If $r = 3\sqrt{\frac{3}{4}}$ = cm, then the volume of the sphere is _ _ _ _ _. ( )
   (a) π c.c. (b) 2π c.c. (c) 3 π c.c. (d) 4 π c.c.

9. If r = 1 cm, then the surface area of hemisphere is _ _ _ ( )
   (a) π sq. cm. (b) 2 π sq. cm. (c) 3 π sq. cm. (d) 4 π sq. cm.

10. If r = 1 cm, then the total surface area of hemisphere is _ _( )
    (a) π sq. cm. (b) 2π sq. cm. (c) 3π sq. cm. (d) 4π sq. cm.