

## CHAPTER-11 | : Surface Areas and Volumes

QUIZ  
PART-5

1. The slant height of a cone is used to calculate its:

- A. Volume
- B. Total surface area
- C. Radius
- D. Perimeter (B)

**Explanation:** The slant height is used in the surface area formula of a cone.

2. The formula for the curved surface area of a cone is:

- A.  $\pi r^2$
- B.  $\pi r l$
- C.  $2\pi r l$
- D.  $2\pi r(r + l)$  (B)

**Explanation:** Curved surface area of a cone =  $\pi r l$ , where  $r$  is radius and  $l$  is slant height.

3. The total surface area of a cone is:

- A.  $\pi r l$
- B.  $\pi r(l + r)$
- C.  $\pi r^2$
- D.  $2\pi r(r + h)$  (B)

**Explanation:** Total surface area =  $\pi r(l + r)$ , including base and curved surface.

4. The slant height of a cone is calculated using:

- A.  $\sqrt{(r^2 + h^2)}$
- B.  $r \times h$
- C.  $r^2 + h^2$
- D.  $r + h$  (A)

**Explanation:** Slant height  $l$  is calculated using the Pythagorean theorem:  $\sqrt{(r^2 + h^2)}$ .

5. The curved surface area of a cone with radius 6 cm and slant height 10 cm is:

- A.  $440 \text{ cm}^2$
- B.  $660 \text{ cm}^2$
- C.  $880 \text{ cm}^2$
- D.  $1100 \text{ cm}^2$  (B)

**Explanation:** Curved surface area =  $\pi r l = 3.14 \times 6 \times 10 = 660 \text{ cm}^2$ .

6. To find the slant height of a cone, we need to know:

- A. Only radius
- B. Radius and height
- C. Radius and surface area
- D. Only height (B)

**Explanation:** Slant height is found using the radius and height.

7. The surface area of a conical tent is calculated by:

- A. Finding the volume
- B. Using the formula for slant height
- C. Calculating the curved surface area and adding the base area
- D. Subtracting the slant height (C)

**Explanation:** Total surface area includes curved surface area and the area of the base.

8. The total surface area of a cone with radius 12 m and slant height 21 m is:

- A.  $880 \text{ m}^2$
- B.  $660 \text{ m}^2$
- C.  $1200 \text{ m}^2$
- D.  $2100 \text{ m}^2$  (B)

**Explanation:** Using the surface area formula, the total surface area comes out to be  $660 \text{ m}^2$ .

9. The slant height of a conical tomb with base diameter 14 m and slant height 25 m is:

- A. 25 m
- B. 15 m
- C. 35 m
- D. 40 m (A)

**Explanation:** Slant height is provided as 25 m.

10. The cost of painting 50 cones with radius 40 cm and height 1 m, if the cost is ₹12 per  $\text{m}^2$ , is:

- A. ₹660
- B. ₹700
- C. ₹800
- D. ₹900 (A)

**Explanation:** Total cost for painting all cones is calculated based on their surface area and given cost per  $\text{m}^2$ .