CLASS –IX
MATHEMATICS ,
BASIC WORKSHEET
CHAPTER: SURFACE AREA

Choose the correct option.

1.Lateral surface area of a cuboid with dimensions l, b, h is:
(a) 2(lb+bh+hl) (b) 2(lb+bh+lh)-2lb
(c) lbh (d)2(l+b) h

2. The surface area of the cube is 600 cm^2.Each side of the cube is:
(a) 8 cm (b) 6 cm
(c) 10 cm (d) 4 cm.

3. Dimensions of a room are 4m×12m×3m.How long an iron rod can be placed in the room?
(a) 12 m (b) 10m
(c) 13 m (d) 15 m

4.The curved surface area of a cylinder of height 14 cm is 88 sq.cm. The diameter of the cylinder is:
(a) 0.5 cm (b) 1 cm
(c) 1.5 cm (d) 2cm

5.The surface area of a cuboid is 1372 sq.cm. If its dimensions are in the ratio of 4:2:1, then its length is:
(a) 7 cm (b) 14 cm
(c) 21 cm (d) 28 cm

6. For a hollow cylinder of height=h, outer radius=R, inner radius=r, the total surface area is:
(a) 2πr(h+r) (b) 2π(R+r) (h+R-r)
(c)2πh(R+r) (d) $\pi h(R^2+r^2)$

7. Slant height of a cone is 34 cm. and radius of the base is 16 cm. The height of the cone is:
(a) 25cm (b) 32cm
(c) 28cm (d) 30cm

8. Area of the curved surface of a cone of radius 2r and slant height $\frac{l}{2}$is:
(a) πrl (b) 2πrl
(c)$\frac{l}{2}$πrl (d) πr(l+r)

9. Total surface of the hemisphere of radius 10 cm is:
(a) 842 cm^2 (b)942 cm^2
(c)742 cm^2 (d) 1042 cm^2

10. The radius of the sphere whose surface area is 154 cm^2, is:
(a)3.5 cm (b) 4.5 cm
(c) 2.5 cm (d) 5.5 cm

Fill in the blanks.

11. Surface area of the cuboid, whose dimensions are 3cm× 5cm×7cm, is --------.
12. Total surface area of a cube of each side '1' cm is ----------.
13.The curved surface area of cylinder of height 'h' and base radius 'r' is:------
14.The total surface area of cylinder of base radius 'r' and height 'h' is:--------
15. If the total surface area of the sphere is 3850 cm^2, then the diameter of the sphere is ----------.

Answer the following.

16. A room is 8m long, 5m wide and 3m high. Find the area of the four walls of the room.
17. If total surface area of a cube is 96cm^2, then find the length of the diagonal of the cube.
18. Find the surface area of the sphere of diameter 14 cm.
19. Curved surface area of a cone of slant height 14 cm is 308 cm^2.Find its radius.
20. The curved surface area of a right circular cylinder is 1100 cm^2 and circumference of the base is 220 cm. Find the radius and height of the cylinder.

Short Answer Type-I Questions

21.The diameter of the earth is four times (approximately) the diameter of the moon. Find the ratio of their surface areas.
22. The diameter of a garden roller is 1.4 m and it is 2m long. How much area will it cover in 5 revolutions?
23. Find the lateral surface area of a cube, if its diagonal is $\sqrt{6}$ cm.

Short answer Type-II Questions

24. A triangle with the sides 6cm, 8cm and 10cm is revolved about 8cm.Find the lateral surface area and total surface area of the solid formed.
25. The diameters of two cones are equal. If their slant heights are in the ratio 7:4, find the ratio of their curved surface areas.
26. The outer curved surface areas of hemisphere and sphere are in the ratio 2:9. Find the ratio of their radii.

Long answer Type Questions

27. The slant height and the diameter of the base of a conical tomb are 25m and 14 m respectively. Find the cost of white-washing of its curved surface area at the rate of Rs. 210 per 100m^2?
28. How many square meters of canvas is required for a conical tent whose height is 3.5 m and the radius of the base is 12m?
29. Three equal cubes are placed adjacent to each other in a row. Find the ratio of the total surface area of the resultingcuboid formed to the total surface area of the three cubes.
30. A metal pipe is 70 cm long. The outer and inner diameters are 12m and 10m respectively. Find the curved surface area of the hollow cylinder.

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