EduSahara™ Worksheet

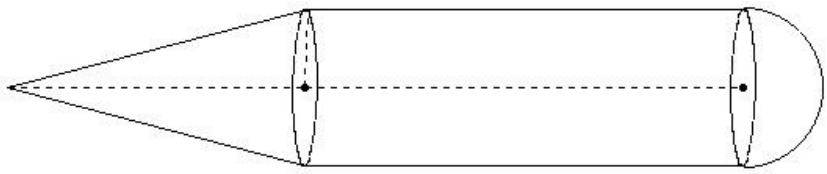
Name : Chapter Based Worksheet

Chapter : Surface areas and Volumes

Grade : SSC Grade IX

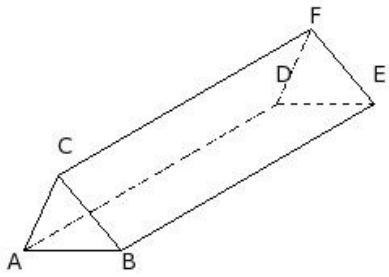


1. A solid consists of a right circular cylinder with a hemisphere on one end and a cone on the other . The radius and height of the cylindrical part are 5.00 cm and 28.00 cm respectively. The radii of the hemispherical and conical parts are the same as that of the cylindrical part. Calculate the volume of the solid, if the height of the conical part is 19.00 cm



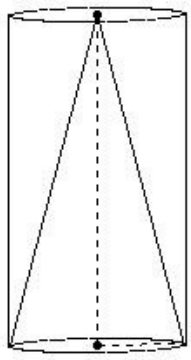
(i) 3089.52 cu.cm (ii) 2889.52 cu.cm (iii) 3079.52 cu.cm (iv) 2819.52 cu.cm (v) 2959.52 cu.cm

2. If the L.S.A of a triangular prism is 612.00 sq.cm, base area is 13.64 sq.cm and base perimeter is 17.00 cm, its volume is



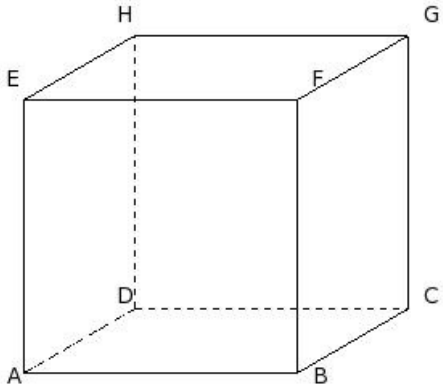

(i) 491.04 cu.cm (ii) 498.04 cu.cm (iii) 477.04 cu.cm (iv) 504.04 cu.cm (v) 489.04 cu.cm

3. From a circular cylinder of diameter 10.00 cm and height 19.00 cm, a conical cavity of the same base radius and of the same height is hollowed out. Find the total surface area of the remaining solid.



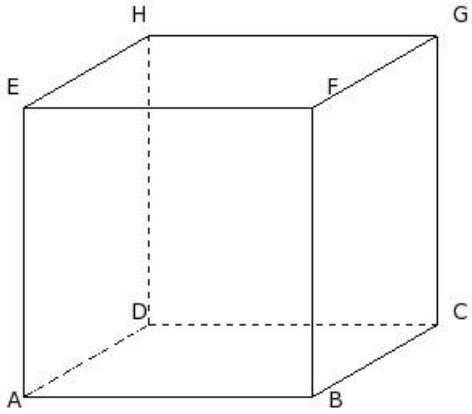
(i) 984.50 sq.cm (ii) 971.50 sq.cm (iii) 1012.50 sq.cm (iv) 966.50 sq.cm (v) 998.50 sq.cm

4. If the length, height and volume of a cuboid are 17.00 cm, 17.00 cm and 4624.00 cu.cm respectively, its L.S.A is



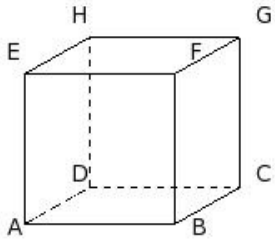

(i) 1122.00 sq.cm (ii) 992.00 sq.cm (iii) 1352.00 sq.cm (iv) 972.00 sq.cm (v) 1282.00 sq.cm

5. If the side of a cube is 18.00 cm, its L.S.A is



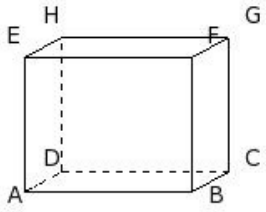

(i) 1136.00 sq.cm (ii) 1296.00 sq.cm (iii) 1436.00 sq.cm (iv) 1146.00 sq.cm (v) 1376.00 sq.cm

6. If the side of a cube is 9.00 cm, its volume is



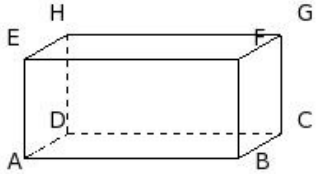

(i) 726.00 cu.cm (ii) 735.00 cu.cm (iii) 729.00 cu.cm (iv) 712.00 cu.cm (v) 747.00 cu.cm

7. If the breadth, height and L.S.A of a cuboid are 5.00 cm, 8.00 cm and 240.00 sq.cm respectively, its T.S.A is



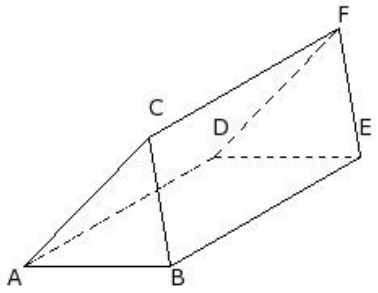

(i) 363.00 sq.cm (ii) 338.00 sq.cm (iii) 340.00 sq.cm (iv) 318.00 sq.cm (v) 346.00 sq.cm

8. If the length, height and L.S.A of a cuboid are 13.00 cm, 6.00 cm and 228.00 sq.cm respectively, its volume is



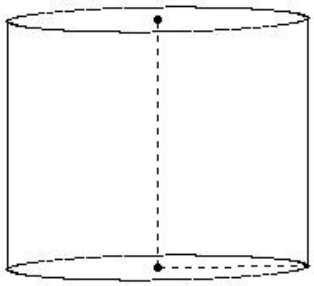

(i) 468.00 cu.cm (ii) 443.00 cu.cm (iii) 471.00 cu.cm (iv) 464.00 cu.cm (v) 491.00 cu.cm

9. If the volume of a triangular prism is 958.50 cu.cm, base perimeter is 28.00 cm and base area is 35.50 sq.cm, its L.S.A is



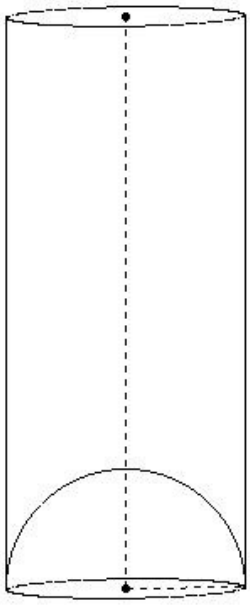

(i) 758.00 sq.cm (ii) 773.00 sq.cm (iii) 753.00 sq.cm (iv) 738.00 sq.cm (v) 756.00 sq.cm

10. If the radius of a cylinder is 9.00 cm and height is 15.00 cm, its L.S.A. is



(i) 861.57 sq.cm (ii) 824.57 sq.cm (iii) 832.57 sq.cm (iv) 860.57 sq.cm (v) 848.57 sq.cm

11. A hemispherical depression is cut out from one face of a cylinder. The height of the cylinder is 34.00 cm and its radius is 7.00 cm. Find the total surface area of the solid

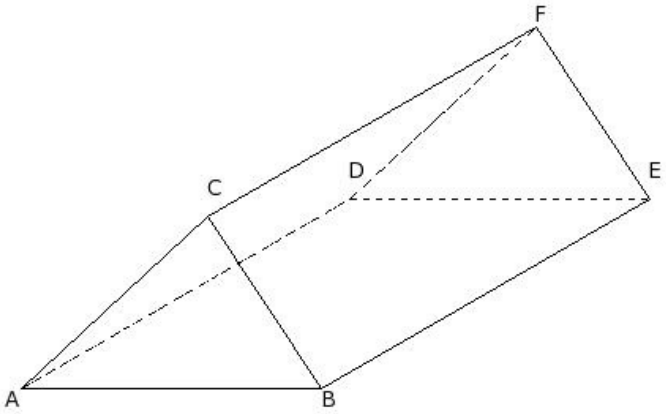


(i) 1958.00 sq.cm (ii) 2198.00 sq.cm (iii) 1978.00 sq.cm (iv) 1788.00 sq.cm (v) 1928.00 sq.cm

12. A solid metallic cylinder of base radius 6.50 cm and height 9.00 cm is melted to form cones each of height 1.00 cm and radius 1.00 cm . Find the number of complete cones formed

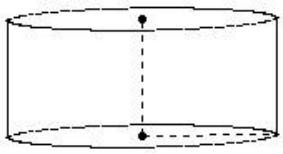
(i) 970 (ii) 1270 (iii) 1290 (iv) 880 (v) 1140

13. If the base perimeter of a triangular prism is 48.00 cm, base area is 102.76 sq.cm and height is 48.00 cm, its L.S.A is



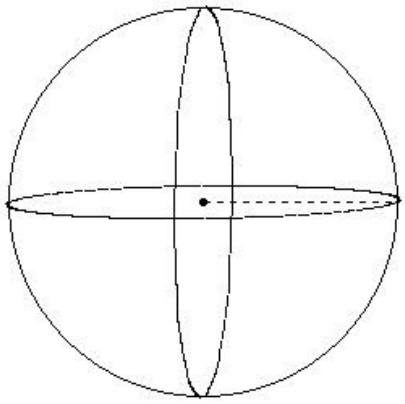

(i) 2304.00 sq.cm (ii) 2484.00 sq.cm (iii) 2144.00 sq.cm (iv) 2284.00 sq.cm (v) 2374.00 sq.cm

14. If the height of a cylinder is 7.00 cm and L.S.A is 352.00 sq.cm, its T.S.A is



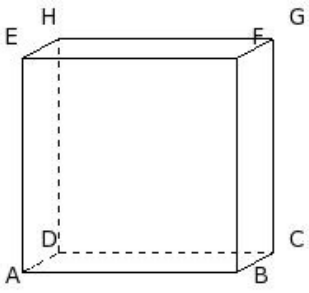
(i) 748.29 sq.cm (ii) 754.29 sq.cm (iii) 761.29 sq.cm (iv) 766.29 sq.cm (v) 732.29 sq.cm

15. If the T.S.A of a sphere is 1810.29 sq.cm, its L.S.A is



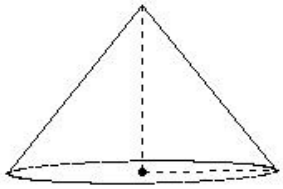
(i) 1630.29 sq.cm (ii) 1970.29 sq.cm (iii) 1640.29 sq.cm (iv) 1960.29 sq.cm (v) 1810.29 sq.cm

16. If the length, breadth and T.S.A of a cuboid are 13.00 cm, 5.00 cm and 598.00 sq.cm respectively, its volume is



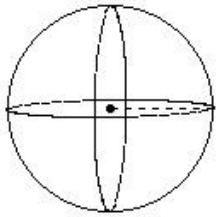

(i) 859.00 cu.cm (ii) 827.00 cu.cm (iii) 845.00 cu.cm (iv) 871.00 cu.cm (v) 820.00 cu.cm

17. If the slant height of a cone is 12.81 cm and T.S.A is 523.22 sq.cm, its volume is



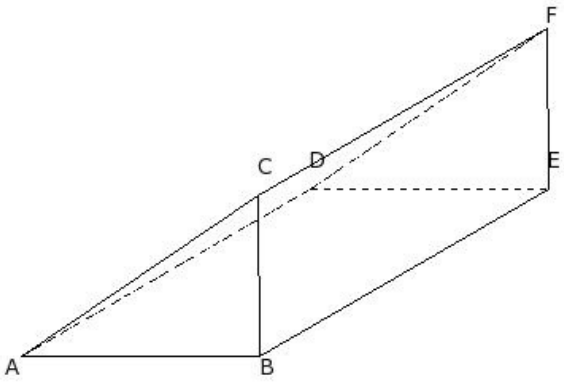
(i) 688.48 cu.cm (ii) 687.48 cu.cm (iii) 665.48 cu.cm (iv) 670.48 cu.cm (v) 658.48 cu.cm

18. If the volume of a sphere is 905.14 cu.cm, its T.S.A is



(i) 434.57 sq.cm (ii) 452.57 sq.cm (iii) 469.57 sq.cm (iv) 478.57 sq.cm (v) 428.57 sq.cm

19. If the three sides of a triangular prism are 15.00 cm, 10.00 cm, 18.00 cm and height is 42.00 cm, its base perimeter is

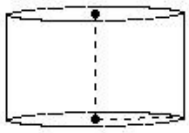



(i) 43.00 cm (ii) 40.00 cm (iii) 48.00 cm (iv) 46.00 cm (v) 38.00 cm

20. Metallic spheres of radii 10.00 cm, 8.00 cm, 12.00 cm are melted to form a single solid sphere. Find the radius of the resulting sphere.

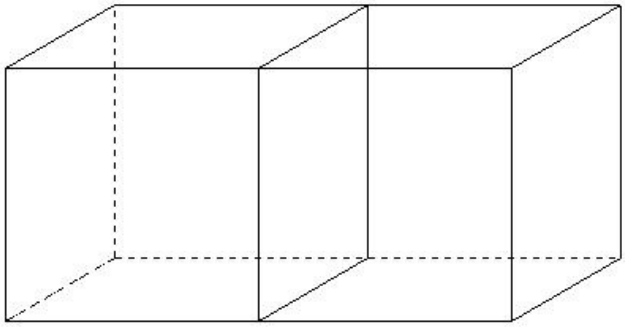
(i) $\sqrt[3]{3237}$ cm (ii) 3240 cm (iii) $\sqrt[5]{3240}$ cm (iv) $\sqrt[3]{3242}$ cm (v) $\sqrt[3]{3240}$ cm

21. If the radius of a cylinder is 5.00 cm and T.S.A is 345.71 sq.cm, its L.S.A. is



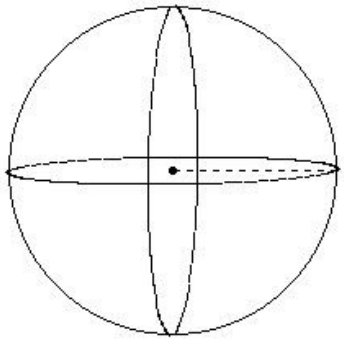
(i) 188.57 sq.cm (ii) 161.57 sq.cm (iii) 180.57 sq.cm (iv) 195.57 sq.cm (v) 216.57 sq.cm

22. Two cubes each of volume 4096.00 cu.cm are joined end to end . Find the surface area of the resulting cuboid.



(i) 2380.00 sq.cm (ii) 2560.00 sq.cm (iii) 2700.00 sq.cm (iv) 2740.00 sq.cm (v) 2500.00 sq.cm

23. If the volume of a sphere is 4190.48 cu.cm, its L.S.A is

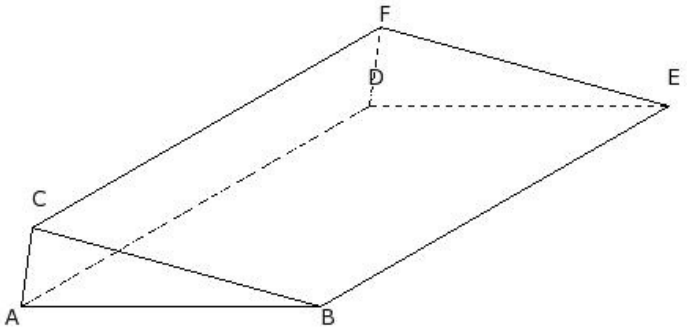


(i) 1407.14 sq.cm (ii) 1197.14 sq.cm (iii) 1397.14 sq.cm (iv) 1127.14 sq.cm (v) 1257.14 sq.cm

24. A metallic sphere of radius 19.00 cm is melted to recast into the shape of a cylinder of radius 20.00 cm . Find the height of the cylinder.

(i) 22.86 cm (ii) 17.86 cm (iii) 27.86 cm (iv) 19.86 cm (v) 25.86 cm

25. If the L.S.A of a triangular prism is 2193.00 sq.cm, T.S.A is 2287.18 sq.cm and height is 51.00 cm, its base perimeter is




(i) 48.00 cm (ii) 46.00 cm (iii) 43.00 cm (iv) 40.00 cm (v) 38.00 cm

## Assignment Key

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|---|---|---|---|---|---|
| 1) (v) | 2) (i) | 3) (i) | 4) (i) | 5) (ii) | 6) (iii) |
| 7) (iii) | 8) (i) | 9) (v) | 10) (v) | 11) (i) | 12) (v) |
| 13) (i) | 14) (ii) | 15) (v) | 16) (iii) | 17) (iv) | 18) (ii) |
| 19) (i) | 20) (v) | 21) (i) | 22) (ii) | 23) (v) | 24) (i) |
| 25) (iii) | | | | | |