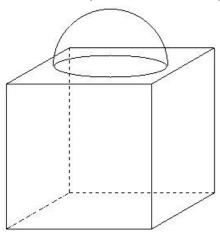
Name : Surface Area of a Combination of Solids

Chapter : Mensuration
Grade : SSC Grade X

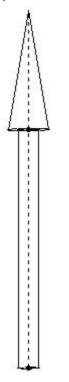
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1. If two solids, a cube and a hemisphere are combined such that the base of the block is a cube with edge 18.00 cm and the hemisphere fixed on the top has a diameter of 14.00 cm, find the total surface area of the block.



(i) 1928.00 sq.cm (ii) 2378.00 sq.cm (iii) 2248.00 sq.cm (iv) 2098.00 sq.cm (v) 2058.00 sq.cm

A wooden toy rocket is in the shape of a cone mounted on a cylinder. The height of the conical part is 12.00 cm, while the height of the cylindrical part is 24.00 cm. The base of the conical portion has a diameter of 4.00 cm while the base diameter of the cylindrical portion is 2.00 cm. If the conical portion is painted with blue and cylindrical portion with pink, find the area of the rocket painted with each of these colors

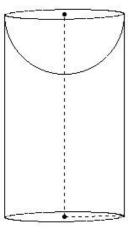


(i) blue area = 86.93 sq.cm, pink area = 155.00 sq.cm (ii) blue area = 83.93 sq.cm, pink area = 152.00 sq.cm

(iii) blue area = 84.93 sq.cm, pinkarea = 153.00 sq.cm (iv) blue area = 85.93 sq.cm, pinkarea = 154.00 sq.cm

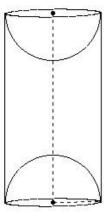
(v) blue area = 87.93 sq.cm, pink area = 156.00 sq.cm

3. A hemispherical depression is cut out from one face of a cylinder. The height of the cylinder is 24.00 cm and its radius is 7.00 cm. Find the total surface area of the solid



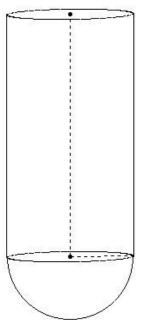
(i) 1388.00 sq.cm (ii) 1518.00 sq.cm (iii) 1678.00 sq.cm (iv) 1298.00 sq.cm (v) 1558.00 sq.cm

4. A hemispherical depression is cut out from both ends of a cylinder. The height of the cylinder is 22.00 cm and its radius is 5.50 cm. Find the total surface area of the solid



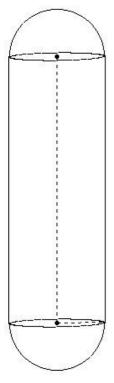
(i) 1140.86 sq.cm (ii) 1070.86 sq.cm (iii) 1390.86 sq.cm (iv) 1180.86 sq.cm (v) 960.86 sq.cm

5. A solid consists of a cylinder with one hemispherical end with length 29.00 cm and diameter 15.00 cm. Find the total surface area of the solid

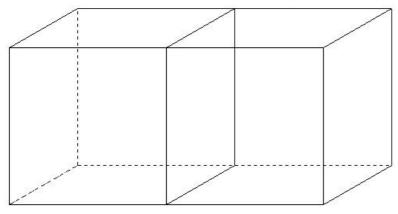


(i) 2057.50 sq.cm (ii) 1777.50 sq.cm (iii) 1897.50 sq.cm (iv) 2117.50 sq.cm (v) 1867.50 sq.cm

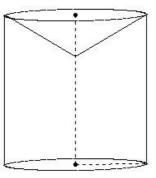
6. A solid consists of a cylinder with two hemispherical ends with length 31.00 cm and diameter 11.00 cm. Find the total surface area of the solid



- (i) 1272.00 sq.cm (ii) 1292.00 sq.cm (iii) 1682.00 sq.cm (iv) 1612.00 sq.cm (v) 1452.00 sq.cm
- 7. Two cubes each of volume 8000.00 cu.cm are joined end to end . Find the surface area of the resulting cuboid.

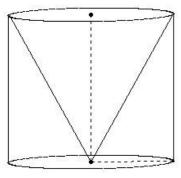


- (i) 4220.00 sq.cm (ii) 4180.00 sq.cm (iii) 4000.00 sq.cm (iv) 3730.00 sq.cm (v) 3930.00 sq.cm
- 8. From a solid cylinder of height 18.00 cm and base radius 8.50 cm, a conical cavity of height 5.00 cm and base radius 8.50 cm is drilled out. Find the total surface area of the resulting solid



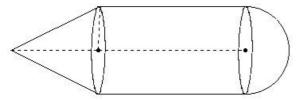
(i) 1332.19 sq.cm (ii) 1502.19 sq.cm (iii) 1282.19 sq.cm (iv) 1572.19 sq.cm (v) 1452.19 sq.cm

9. From a circular cylinder of diameter 20.00 cm and height 18.00 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.



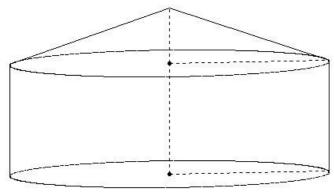
(i) 2092.83 sq.cm (ii) 2362.83 sq.cm (iii) 1972.83 sq.cm (iv) 1932.83 sq.cm (v) 2242.83 sq.cm

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 5.50 cm and 18.50 cm respectively. The radii of the hemispherical and conical parts are the same as that of the cylindrical part. Calculate the total surface area of the solid, if the height of the conical part is 11.00 cm



(i) 862.33 sq.cm (ii) 872.33 sq.cm (iii) 1072.33 sq.cm (iv) 1292.33 sq.cm (v) 1042.33 sq.cm

A tent is in the form of a cylinder surmounted by a cone., The height of the tent above the ground is 21 m and 11. the height of the cylindrical part is 14.00 m. If the diameter of the base is 40.00 m, find the quantity of canvas required to make the tent. Allow 11% extra for folds and for stitching.



(i) 3432.06 sq.m (ii) 3712.06 sq.m (iii) 3352.06 sq.m (iv) 3502.06 sq.m (v) 3282.06 sq.m

Assignment Key						
1) (iv)	2) (iv)	3) (ii)	4) (i)	5) (iii)	6) (v)	
7) (iii)	8) (v)	9) (i)	10) (v)	11) (i)		

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