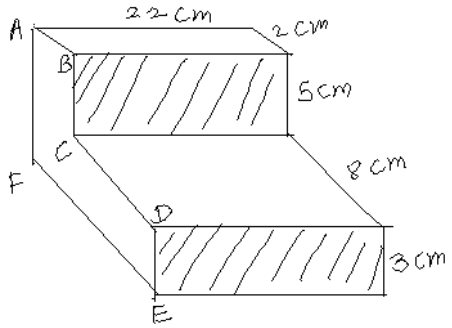
Anita's Coaching Classes

Marks :25
Time : 1:30hrs

1) Three cubes each of side 5 cm are joined end to end. Find the surface area of resulting cuboid. [1]
2) Length of a class-room is two times its height and its breadth is 1 ½ times its height. The cost of white washing the walls at the rater of Rs. 1.60 per sq.m is Rs.179.20. Find the cost of tiling the floor at the rate of Rs. 6.75 per sq.m. [3]
3) The sum of length,breadth and depth of a cuboid is 19 cm, and the length of its diagonal is 11 cm. Find the surface area of cuboid. [3]
4) Find the number of bricks,each measuring 25 cm x 12.5 cm x 7.5 cm required to construct a wall 6 m long, 5 m high and 0.5 m thick,while the cement and sand mixture occupies 1/20 of the volume of the wall. [3]
5) The shape of a solid copper piece (made of two pieces with dimensions as shown in the fig.) is shown. The face ABCDEFA is the uniform cross section. Assume that the angles at A,B,C,D,E and F are right angles. Calculate the volume of the piece. [3]



6) A reservoir is in the form of cuboid. Its length is 20 m. If 18 kl of water is removed from the reservoir, the water level goes down by 15 cm. Find the width of the reservoir. (1 kl = 1 cu.m) [3]
7) A plot of land in the form of a rectangle has a dimensions 240 m x 180 m. A drainlet 10 m wide is dug all around it and the earth dug out is evenly spread over the plot, increasing its surface level by 25 cm. Find the depth of the drainlet. [3]
8) If V is the volume of a cuboid of dimensions a,b,c and S is the surface area, then prove that $1/V = 2/S (1/a + 1/b + 1/c)$ [3]
9) A cube of 9 cm edge is completely immersed in a rectangular vessel containing water. If the dimensions of the base are 15 cm and 12 cm. Find the rise in water level in the vessel. [3]