Basic Mathematics Quiz 038 (Volume and Surface Area)

1. The outer dimensions of a closed box are 12 cm by 10 cm by 8 cm. If the box is made of wood 1 cm thick, find out the capacity of the box.

    A) 360 cm^3

    B) 480 cm^3

    C) 240 cm^3

    D) 560 cm^3

2. The area of three adjacent faces of a rectangular box are p, q and r square cm. The volume of the box is given by

    A) (p + q + r) cm^3

    B) $\sqrt{pqr}$ cm^3

    C) pqr$^{1/3}$ cm^3

3. How many bricks, each measuring 250 cm by 12.5 cm by 7.5 cm, will be required to build a 5 m long, 3 m high and 20 cm thick wall?

    A) 1480

    B) 1280

    C) 1680

    D) 1480

4. How many bricks are required to build a 15 m long 3 m high and 50 cm thick wall, if each brick measures 25 cm by 12 cm by 6 cm.

    A) 16500

    B) 14500

    C) 12500

    D) 10500

5. Find the diagonal of a cuboid whose dimensions are 12 m by 10 m by 8 m.

    A) 18 m

    B) 17.5 m

    C) 17 m

    D) 16.5 m

6. The outer dimensions of a closed wooden box of 1 cm thick are 12 cm by 10 cm by 8 cm. Find out the cost of the wood required to make the box if 1 cm^3 of wood costs ₹ 3.00.

    A) ₹ 1440

    B) ₹ 1640

C) ₹ 1840

D) ₹ 2040

7. 3 equal cubes are placed adjacently in a row. Find out the ratio of the total surface area of the new cuboid to that of the sum of the surface areas of the three cubes

A) 3:5

B) 4:5

C) 6:7

D) 7:9

8. An iron cube of 10 cm sides is hammered into a rectangular sheet of thickness 0.5 cm. If the sides of the sheet be in the ratio 1:5, the sides (in cm) are

A) 110 cm, 50 cm

B) 20 cm, 100 cm

C) 40 cm, 200 cm

D) None of these

9. How many cubes, each of surface 24 cm^2, can be made out of a cube of edge measure 1 metre?

A) 165000

B) 125000

C) 180000

D) 155000

10. 3 solid cubes whose edges are 6, 8 and 10 cm respectively, are melted and formed into a single cube. If there be no loss of metal in the process, find out the edge of the new cube.

A) 16 cm

B) 10 cm

C) 14 cm

D) 12 cm

Answer Keys

Question	Answer
1	B
2	B
3	B
4	C
5	B

Question	Answer
6	A
7	D
8	B
9	B
10	D