MATHEMATICS
CLASS VIII
FA-3
Assignment No. 12
Ch 14 Mensuration

1. Tick the correct alternative :

i. The parallel sides of a trapezium are 28 cm and 16 cm and its area is 220 cm^2. The distance between its parallel sides is

a) 5 cm b) 10 cm c) 15 cm d) 20 cm

ii. If an edge of a cube is doubled, then its surface area will become

a) twice b) thrice c) $\frac{1}{4}$ times d) four times

iii. The volume of a cube of edge 0.01 m (in cm^3) is

a) 0.000001 b) 1 c) 0.0001 d) 0.001

iv. The radius of a right circular cylinder is doubled keeping its height same. The ratio between the volumes of new cylinder and the original cylinder is

a) 3 : 1 b) 4 : 1 c) 2 : 1 d) 8 : 1

2. The area of a square is 42.25 m^2. Find the side of the square. If the tiles measuring 13 cm × 13 cm are paved on the square area, find how many tiles are required for paving it?
3. A field in the form of a rhombus has each side of length 64 m and altitude 16 m. What is the side of a square field which has the same area as that of the rhombus?
4. The perimeter of the rhombus is 20 cm and the altitude is 4.8 cm. If the length of one diagonal is 6 cm, find the length of the other diagonal.
5. The area of a trapezium is 210 cm^2. The ratio between the lengths of its parallel sides is 3:4. If its height is 6 cm, find the length of both the parallel sides.
6. How many cubical blocks of edge 25 cm can be cut from a cubical block of edge 1 m?
7. A powder is available in two packs- a tin can with a square base of each side 5 cm and having height 14 cm or one with a circular base of radius 3.5 cm and having height 12 cm. Which of them has greater capacity and by how much?
8. Three cubes of edge 10 cm each are placed side by side and stuck together. If the outer surface alone is painted at 2 paise per cm^2, find the cost of painting.
9. A cuboidal tin open at the top has dimensions 20 cm × 16 cm × 14 cm. What is the total area of a sheet of metal required to make 10 such tins.
10. The circumference of the base of a right circular cylinder is 176 cm and it is 1 m high. Find the lateral surface area of the cylinder.
11. A cylindrical pillar is 50 cm in diameter and 3.5 m high. Find the cost of white washing its curved surface at the rate of Rs 1.25 per square metre.
12. The diameter of a roller is 80 cm and its length is 126 cm. It takes 750 complete revolutions moving once over to level a playground. Find the area of the playground.
13. A room is 5.5 m long, 4 m wide and 3.5 m high. Find the cost of papering its walls with paper 90 cm wide at Rs 1.20 per metre.
14. The area of a rhombus is equal to the area of a triangle with base 24.8 cm and altitude 16.5 cm. If one of the diagonals of the rhombus is 22 cm, find the other diagonal.
15. A cardboard box open from the top is 1.5 m long, 1.25 m wide and 65 cm deep. Find the area of cardboard required for making the box and the cost of cardboard required at Rs 25 per sq m.
16. A rich person wants to donate a rectangular piece of land measuring 500m length and 300m breadth. He distributes his land equally among his 5 servants.

i. How much area does each servant get?
ii. Do you believe in donation/charity? If yes, write one incidence when you have donated something.
iii. Can you name the great Indian leader who started Bhoodan Movement?