PRISM WORLD

Std.: 8 (English) **Mathematics** **Marks: 20**

Date: **Time: 1 hour**

Chapter: 16

Q.1 A) Choose the correct alternative. **(3)**

1) The measure of the space occupied by a solid is called the …… of the solid.

a. Area b. Volume c. Total surface area d. Lateral area

2) Curved surface area of cylinder = …… × Height of cylinder.

a. Diameter b. Radius

c. Circumference of the base of the cylinder d. None of there

3) Formula for total surface area of cylinder is

a. $2\pi rh$ b. $2\pi r^2$ c. $2\pi r\ (h + r)$ d. $2\pi rh^2$

B) Answer the following questions **(3)**

1) Find the volume of the cylinder if height (h) and radius of the base (r) are as given below.
r =4.2 cm, h = 5 cm

2) A cuboid shape soap bar has volume 150 cc. Find its thickness if its length is 10 cm and breadth is 5 cm.

3) Find the volume of the cylinder if height (h) and radius of the base (r) are as given below.
r = 5.6 cm, h = 5 cm

Q.2 Attempt the following questions. (Any two) **(4)**

1) Find the volume of box whose length is 12 m, breadth is 6 m and height is 5.5 m.

2) Find the circumference of a circle of radius 4.9 cm.

3) Find the radius of the circle which has an area of 616 cm^2 $\left(\pi = \frac{22}{7}\right)$

Q.3 Solve the following questions. (Any two) **(6)**

1) In the example given below, radius of base of a cylinder and and its height are given. Then find the curved surface area and total surface area.
r = 7 cm, h = 10 cm

2) A circular lake of diameter 48 m is surrounded by a path of uniform width 2 m. Calculate the area of the path.

3) How much water will a tank hold if the interior diameter of the tank is 1.6 m and its depth is 0.7 m ?

4) Find the depth of a tank which can hold 2.6 m^3 of water. The area of the base is 6500 cm^2.

Q.4 Answer the following (Any one) **(4)**

1) Find the number of bricks needed to construct a wall 5 m high, 10 m long and with thickness of 25 cm. If the dimensions of each brick is 20 cm $\times$ 20 cm $\times$ 5 cm.

2) The length, breadth and height of a cuboid are in the ration 3 : 2 : 1. If its volume is 6000 cm^3. Find the dimensions.