

ICSE PHYSICS 7

Chapter 1: Measurement

Worksheet 1

1. Write T for true and F for false statement.

- (i) The mass of an object contained per unit volume is called density.
- (ii) The SI unit of area is square metre.
- (iii) The volume of the immersed solid is less than the volume of water displaced by it.
- (iv) A needle made of iron floats on water but it sinks in mercury.
- (v) The SI unit of speed is metre/second.

2. Fill in the blanks.

- (i) The density of a wooden piece is _____ than that of water.
- (ii) The distance covered by an object in unit time is called _____.
- (iii) The surface enclosed by an object or a plane figure is _____.
- (iv) A device used to determine volume of liquids is _____.
- (v) The SI unit of volume is _____.

3. Answer the following questions.

- (i) What is the SI unit of density?
- (ii) Define capacity.
- (iii) Which balance is used to determine the mass of the given object?
- (iv) Establish the relation between hectare and square metre.
- (v) What is the area of a circle?

4. Solve the following numerical problems.

- (i) A tank of 16 m and breadth 10 m is filled with water. If the depth of water in the tank is 1.2 m, find the volume of water contained in the tank.
- (ii) If density of copper is 8.9 g/cm^3 , find its value in kg/m^3 .

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Worksheet 2

1. Fill in the blanks.

- (i) Length, mass, time, etc., are _____ quantities.
- (ii) The area of a square is _____.
- (iii) The space occupied by an object is called its _____.
- (iv) Equal volumes of two different substances have different _____.
- (v) The density of gold is _____ than the density of mercury.

2. Match the columns.

Column A

- (i) Volume of a cube
- (ii) Volume of a cuboid
- (iii) 1 g/cm^3 is equal to
- (iv) 1 sq km is equal to
- (v) 1 cu cm is equal to

Column B

- (a) 1000 kg/m^3
- (b) 1000000 m^2
- (c) 1000 mm^3
- (d) $l \times b \times h$
- (e) a^3

3. Answer the following questions.

- (i) Define physical quantities.
- (ii) In which units, the volumes of liquids are measured?
- (iii) Name one irregular solid which is heavier than water and one irregular solid which is lighter than water.
- (iv) Can area of an irregular surface be estimated by using graph paper?
- (v) What is the CGS unit of speed?

4. Solve the following numerical problems.

- (i) Calculate the mass of a metal sphere of radius 5.0 cm if its density is 5 g/cm^3 ?
- (ii) Find the volume of a piece of wood having mass 80 kg . The density of wood is 800 kg/m^3 .