

CLASS – 7
CHAPTER -1. PHYSICAL QUANTITIES AND MEASUREMENT
ANSWER KEY

A. Answer to True/False:

- i) False. The S.I unit of volume is cubic metres.**
- ii) False. Equal volume of two different substances may have different masses.**
- iii) True.**
- iv) True.**
- v) False. They are equal.**
- vi) True.**

B. Answer to fill in the blanks:

- i) 10^6 cm^3**
- ii) Displacement method**
- iii) Length \times breadth \times height**
- iv) Grid**
- v) Volume**
- vi) 1000**
- vii) 10**
- viii) speed**

C. Match the following:

COLUMN A	COLUMN B
1. Volume of a liquid	1. measuring cylinder
2. Area of a leaf	2. Graph
3, S.I unit of volume	3. m^3
4. S.I unit of density	4. kg/m^3
5. S.I unit of speed	5. m/s

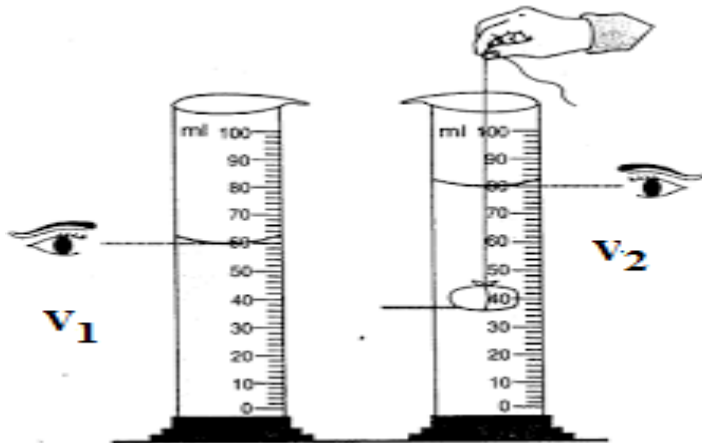
D. Choose the correct option:

- 1. (d), 2. (a), 3. (c), 4.d(c)**

5. The amount of space that a substance or object occupies, or that is enclosed within a container. SI unit of volume is cubic metres.

6. Measuring jar/cylinder, Scale

7. If the object is irregular, measuring cylinder is used and volume is given the displacement method.



8. Place the lamina over a graph paper and draw its boundary line on the graph paper with a pencil.

Then remove the lamina and count and note the number of complete squares as well as the number of squares more than half within the boundary line.

The area of lamina is equal to the sum of the area of complete squares and the areas of squares more than half.

Let n be the total number of complete and more than half or half squares within the boundary of the lamina. Since area of 1 big square is $1\text{ cm} \times 1\text{ cm} = 1\text{ cm}^2$, so the area of the lamina will be $n \times 1\text{ cm}^2$ or $n\text{ cm}^2$.

9. The density of water increases when temperature changes from 0° to 4° C , becomes maximum at 4° C . On further increase of temperature beyond 4° C the density of decreases.

10. $L \times B \times H = 5\text{ m} \times 2\text{ m} \times 1.25\text{ m} = 15.625\text{ m}^3 = 15,625\text{ litre}$.
