Chapter-1

MATTER AND IT'S COMPOSITION

I. MULTIPLE CHOICE QUESTIONS (1 MARKS)

(a) The diameter of a molecule is approximately

1. 1cm
2. 10cm
3. 10^{-10} m
4. 1m

(b) The intermolecular forces are strongest in

1. Solids
2. Liquids
3. Gases
4. Both (i) and (ii)

(c) The molecules

1. In solid, liquid and gas, move freely anywhere
2. In a solid, move freely within its boundary
3. In a liquid, move within its boundary
4. In a gas, move only within its boundary

(d) The solids are

1. More dense
2. Less dense
3. Least dense
4. Highly compressible

(e) The intermolecular forces in liquids are

1. As strong as in solids
2. Stronger than in solids
3. Weaker than in solids
4. Weaker than in gases

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Fill in the blanks

(a) All the molecules of a substance are _____.

(b) The intermolecular spacing is _____in the solids, _____ in liquids and _____ in gases

(c) The molecular motion in liquid and gas is in zig- zag path

(d) In a solid, the molecules _____but they remain at their fixed positions.

(e) The intermolecular forces are the weakest in _____.

2. Name the three states of matter.

3. Define matter. What is its composition?

4. The molecules in a substance are in motion. What type of path do they follow?

SHORT ANSWER TYPE QUESTIONS (2 MARKS)

1. One litre of water has 6.02×10^{26}. Estimate the size of a molecule.
2. What are the forces of cohesion and adhesion?

SHORT ANSWER TYPE QUESTIONS (3 MARKS)

1. How do the solids, liquids and gases differ in their following properties?

(a) Size

(b) Shape

(c) Density

2. Describe a simple experiment to illustrate that molecules are not at rest, but they constantly move.

3. Distinguish between the three states of matter - solid, liquid and gas on the basis of their molecular models.

LONG ANSWER TYPE QUESTIONS (5 MARKS)

1. Write down five general properties of solids, liquids and gases.
2. Describe the molecular model for a liquid. How does it explain that a liquid has no definite shape, but has a definite Volume?
