

OBJECTIVE TYPE QUESTIONS

1. Fill in the blanks :

- (a) Water is matter because it has mass and occupies space.
- (b) Any matter which has a definite volume but no definite shape is called a liquid.
- (c) Liquid and air can flow.
- (d) The molecules are at a greater distance in air as compared to liquids.
- (e) Water boils at 100 °C.
- (f) The physical state of a substance, which has neither fixed volume nor fixed shape is a liquid.

2. Write whether the following statements are **true** or **false**.

- (a) Only water can exist in three different states. True
- (b) If the container in which a gas is collected has an opening, the gas will flow out and spread itself indefinitely. True
- (c) Solids have the largest intermolecular space. False
- (d) There is no difference between evaporation and boiling. False
- (e) All solids, on heating, first change to liquid and then to the gaseous state. True
- (f) The intermolecular force of attraction is the weakest in gases. True
- (g) A gas has no free surface. False

4. For each of the following statements, say whether it describes a solid, a liquid or a gas.

- (a) Particles move about very quickly but do not leave the surface. Gas
- (b) Particles are quite close together. Solid

(c) Particles are far apart and move in all directions. Gas

5. Match the following :

- | Column A | Column B |
|--------------------------|--|
| (a) Solids | (i) Can flow in all directions. |
| (b) Sublimation | (ii) The temperature at which a liquid changes into its gaseous state. |
| (c) Boiling point | (iii) Can have any number of free surfaces. |
| (d) Gases | (iv) Gaps between particles. |
| (e) Intermolecular space | (v) Change of state directly from solid to gas. |

6. Name the phenomenon which causes the following changes :

- (a) Formation of water vapour from water. Evaporation
- (b) Disappearance of camphor when exposed to air. Sublimation
- (c) Conversion of ice into water. Melting
- (d) Conversion of water into steam. Boiling

7. Give two examples for each of the following:-

- (a) Substances which sublime. Iodine, menthol
- (b) Substances which do not change their state. Oxygen, nitrogen
- (c) Substances which are rigid and not compressible. Glass, stone

MULTIPLE CHOICE QUESTIONS

1. Which one is a kind of matter ?

- (a) light (b) petroleum
- (c) sound (d) heat

2. The state of matter which has no definite shape or volume is called

- (a) solid (b) liquid
- (c) gas (d) water

3. There are large intermolecular gaps in

- (a) water
- (b) iron ball
- (c) common salt
- (d) air

4. All kinds of matter

- (a) occupy space and have a definite mass
- (b) have mass and a definite shape
- (c) can change their states
- (d) have a definite volume

5. A kind of matter which can sublime is

- (a) water
- (b) plastic
- (c) milk
- (d) iodine

6. A substance which can change its state

- (a) wood
- (b) oxygen
- (c) paper
- (d) cloth

7. The process by which a solid changes into a liquid is called

- (a) freezing
- (b) melting
- (c) condensation
- (d) evaporation

1) Ans) • Pure substances have a perfectly homogeneous nature

- Pure substances are made up of only one type of atoms or molecules
- Pure substances have a fixed composition

2) a) Elements are substances that are made from one type of atom. An element can't be broken down into any other substance

Compounds are substances made from atoms of different elements joined by chemical bonds. They can only be separated by a chemical reaction

3) a) A homogeneous mixture is that mixture in which the components mix with each other and its composition is uniform throughout the solution. A heterogeneous mixture is that mixture in which the composition is not uniform throughout and different components are observed.