H.W
13/7/21

Ch-3 Matter

Excercise-II

1. Name the smallest particle from which matter is made up of?

Ans- The smallest particle from which matter is made up is atom.

2. Give reasons:

(a) Liquids and gases flow but solids do not.

The molecules of liquids and gases are far apart i.e have more gaps, intermolecular attraction is very less as compared to solids, hence liquids and gases can flow but solids do not as gaps in molecules, it is less and molecular force of attraction is very strong.

(b) A gas fills up the space available to it.

Ans- Intermolecular force of attraction is least and inter-molecular space are very large, hence gases fill up the space available to them.

(c) The odour of scent spreads in a room

Ans- Scent fumes (molecules) being gases fill the spaces between air molecules and the molecules of air till the spaces between scent molecules due to diffusion, fumes spread into a room.

(d) We can walk through air.

Ans- The molecules of air are far apart ie large gaps and we can walk through air easily.

(e) Liquids have a definite volume but no definite shape.

Ans- The molecules of liquids are loosely packed and inter-molecular force of attraction is small but number of molecules in it remain the same. Hence, liquids have definite volume but no definite shape.

(f) When a teaspoon of sugar is added to half a glass of water and stirred, the water level in the glass remains unchanged.

Ans- When a tea spoon of sugar is added to half a glass of water and stirred, the water level in the glass remains unchanged because the sugar particles are adjusted between the water molecules as inter-molecular gaps are more in liquids.

(g) When an empty gas jar is inverted over a gas jar containing a coloured gas, the gas also spreads into the empty jar.

Ans- This is because Gases can diffuse or flow in all directions.

(h) A red ink drop added to small amount of water in a glass turns the water red in some time.

Ans- When we put a drop of red ink in a glass of water, it's particles diffuse with particles of water slowly but continuously and the water turns red.

9. Define:

(a) Cohesive force

Ans- The force of attraction between particles of the same substance is called cohesive force.

(b) Diffusion

Ans- The phenomenon of intermixing of particles of one kind with another kind is called diffusion.

(c) Brownian Movement

Ans - The zig-zag motion of particles suspended in a medium is called Brownian Movement.