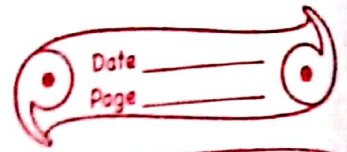


HW
30/9/21

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Homework Chemistry



Q1. Explain how gases can be liquified.

Ans: Gases can be liquified by the process of condensation or liquefaction. This process occurs when a gas is cooled because on cooling the energy of particles decreases and their movement becomes slow. The gaps between the particles decreases and the force of attraction between them increases, as a result they change from gas to liquid.

Q2. What is sublimation? Give examples.

Ans: The conversion of a solid substance into its vapour without ~~understanding~~ ~~to~~ undergoing liquid state ~~on~~ on heating is called sublimation.

For example :- camphor, Naphthalene balls, iodine, etc.

Naphthalene balls kept along with woollen clothes, with passage of time, become smaller because they sublime and change into vapour.

3. Give reason.

a) Liquids and gases flow but solids do not.

Ans. Liquids and gases flow because the force of attraction among the molecules in them are not strong. The molecules in liquids and gases are not very closely packed. So, the intermolecular force of space ~~are~~ is larger and the molecules are able to move. But in solids, the molecules are closely packed and there is a strong force of attraction between the molecules and have no space between them. So, they can ~~not~~ move.

Qb- Why is an egg kicked out of a bottle when air is blown inside the bottle?

Ans. Air expands while heated and contracts when it is cooled. When the air is blown into the bottle through the sides by keeping the bottle inverted, the ~~air~~ air pressure inside the bottle will increase and will push the egg and excess air out of the mouth of the bottle.

c- The odour of scent spreads in a room?

Ans. We know that the scent is a gas in liquified form and the phenomenon of inter-mixing of particles of one kind with another kind is called diffusion. Due to this diffusion, the inter-mixing of scent molecules and air molecules allow the ^{odour of} scent to spread in a room.

d- We can walk through air.

Ans. We can walk through the air because the molecules in the air are loosely packed with one another. So when we move the loosely packed molecules give way to the tightly packed molecules.

e) Liquids have definite volume but no definite shape.

Ans. The molecules of liquid are loosely packed and intermolecular force of attraction is small but number of molecules in it remain the same. Hence liquid have definite

volume but no definite shape.

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

Ans. When a teaspoon 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, its particles diffuse with particles of water slowly but continuously the water turns red.

