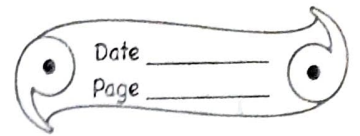


HW
3/7/2021

Home Assignment



1) Explain the terms vaporization and boiling point

Ans- The change from liquid state to gaseous (or vapour) state on heating at a constant temperature by absorption of heat is called vaporization.

The temperature at which a liquid changes into vapour without further increase in temperature is called the boiling point of the liquid.

2) A liquid can change into vapour state

a) at a fixed temperature, and

b) at all temperatures

Name the processes involved in the two cases.

a) Vaporization is the process which can change liquid to vapour state at a fixed temperature.

b) Evaporation is the process which can change liquid to vapour state at all temperatures.

3) How does melting point of ice and wax depend on pressure?

Ans- The melting point of ice is 0°C and melting point of wax is 55°C .

The melting point of ice and wax are depended on pressure. Melting point of ice decreases with increase of pressure on it, but the melting point of wax increases with increase of pressure on it.

4) How does boiling point of water depend on pressure?

Ans- Boiling point of water is 100°C . The boiling point affected by pressure. The boiling point of a liquid increases with the increase of pressure on it.

5) Explain the process of boiling by molecular model.

Ans- In a liquid, the molecules move in all directions but within the boundary of the container. They exert small forces of attraction on each other. They have low kinetic

energy. On heating (absorbing heat), the average kinetic energy of molecules of liquid increases. At a particular temperature (boiling point), the molecules acquire sufficient kinetic energy to overcome the forces of attraction between themselves and they become free to leave the liquid surface. This is called vaporization.

6) Why is it difficult to cook at high altitudes?

Ans- The boiling point of a liquid increases with the increase of pressure on it. At high altitudes there is low pressure. This is why it is difficult to cook vegetable at the mountains but it is easy to cook vegetables in a pressure cooker in which pressure is increased by keeping the water vapour inside the cooker.