

Deposition -

- It is a process when a vapour gas on cooling changes directly into a solid without changing into liquid.

B. Short Answer Questions:

1A) The Matter is something which occupies space, has mass and can be perceived by senses.

- Matter is composed of five tatvas namely Akash, Vayu, Tejas, Jal and Prithvi.

2A) i) They are very small in size.

ii) They have spaces between them.

iii) They attract each other.

3A) The space between any molecules is known as Inter-Molecular space.

- The molecules in solid are tightly packed. (very strong)
- The intermolecular forces are less stronger (liquid).
- The intermolecular forces are weak in (gas).

4. The force of attraction in molecules is known as Inter-Molecular force.

- Solid has stronger intermolecular force.
- Liquid has moderate intermolecular force.
- Gas has less intermolecular force.

5. a) Correct.

b) Correct

c) False

d) False

6. c) Solid = The molecules in a solid are in fixed positions and due to the strong inter-molecular forces, they don't leave their positions, so a solid has definite shape and a definite size.

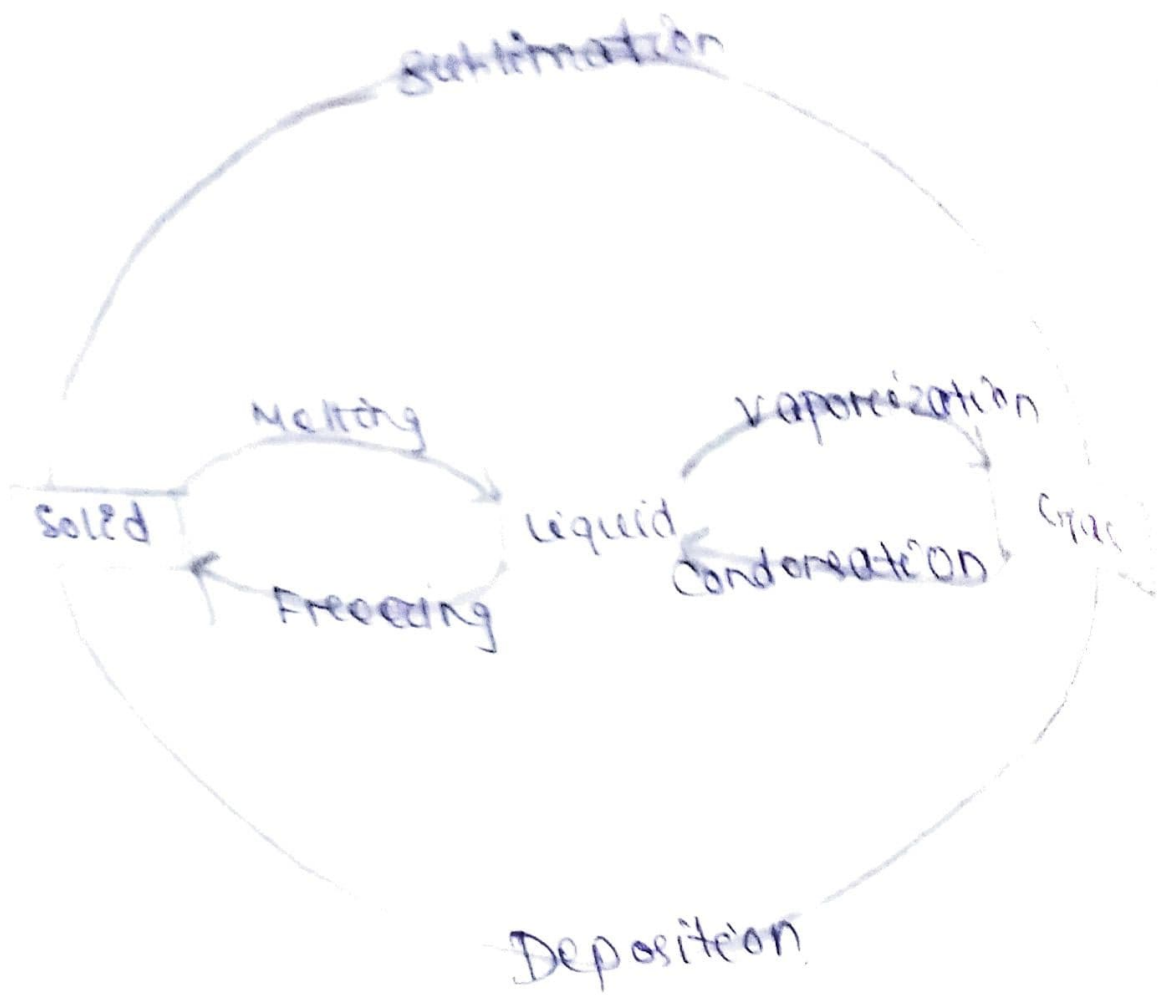
(i) Liquids - The liquid molecules can slide over one another due, to which a liquid can flow. The inter molecular forces, although weak, are sufficient to keep the molecules within the boundary of the vessel. So, liquid don't have definite shape. But, have definite volume.

(ii) Gas - Gas molecules are very free. Because, of their weak intermolecular forces. This is why, the gases have neither a definite shape nor definite volume.

(A) The process of change from one state to another state either by absorption or rejection of heat at a constant temp. is called change of state.

ex)	Melting	Boiling
(i)	The change from the solid state to liquid state on heating at a fixed temp is called as melting.	When a solid changes into liquid vapour at a fixed temp is called as Boiling.
(ii)	eg - Ice to water at 0°C	eg - Boiling water to vapour.

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9A-1) Condensation - The change of vapours on cooling at a fixed temp to liquid is called condensation.

Eg - water vapours at 100°C are cooled they change into water.

ii) Sublimation - The process of change of solid directly into vapour on heating is called as sublimation.

Eg - Naphthalene balls when heated forms to vapour.

10A) The change from solid state to liquid state on heating at a fixed temp is called melting.

→ The temp. at which a solid changes into liquid without further increase in temp. is called melting point of solid.

11A) Insert a thermometer in solid wax, so, that bulb of thermometer in hot bath in water contained in the clamp the test tube along with thermometer in hot bath in water contained in the beaker and set up the apparatus as shown. This heat is absorbed at constant temp till whole wax is melted.

12) Vaporization \rightarrow The change from liquid state to Gaseous state on heating at a constant temp. by absorption of heat is called Vaporization.

13) Boiling Point \rightarrow The temp. at which a liquid changes into vapour without further increase in temp is called Boiling Point.

14) Conclusion We conclude that ice melts at 0°C .

15) Procedure Pour water in it Place the Beaker on a wire gauze placed over a tripod stand clamp a thermometer in vertical stand and insert it into water Heat the water.

\Rightarrow We will see that temp of water rises continuously till the water starts boiling at 100°C . Once the water starts boiling, its temperature doesn't rise any further, although the heat is still being supplied. Now the bubbles formed through the water are seen. At this temp water begins to Boil and changes into steam.

16. a) Melting Point of Ice is 0°C

b) Boiling Point of Water is 100°C

17. Evaporation is a process in which liquid changes to vapour at all temp. from the surface of a liquid.

18. i) The amount of exposed Area.

ii) The flow of Air above liquid.

iii) The temp. of liquid.

19. Wet clothes would dry on a warm dry day because, on a cold humid day the Air would already carry water so, at that time evaporation will take place in very less amount.

- on, warm dry day the evaporation will take place quicker than because, the Air wouldn't have absorbed water so, evaporation will take place quicker.

20. ~~is~~ Yes, Because, The rate of evaporation occurs faster if the exposed area is wider than a bottle as the ^{Dish} ~~Bowl~~ has more exposed area compared to bottle that's why water in dish evaporates faster.

21. Volatile liquids such as alcohol and spirit are stored in tightly closed bottles so, that the rate of evaporation will occur lesser.

22. We conclude that the boiling point of water is always 100°C as it doesn't increase from the fig.

23. The reason for cooling in evaporation is that when a liquid changes into vapour, it requires heat. This heat is supplied by the surroundings of liquid. Thus, results in fall in temp in surroundings.

24. If a little Alcohol is poured on the Palm, it gives a soothing sensation. If some alcohol is poured on cotton wrapped around the Bulb of a thermometer. The reading of the bulb of thermometer falls. This shows that cooling is produced when a liquid evaporates.

25.) In summer, water gets cooled in an earthen pot.

→ Keeping wet clothes on forehead for high fever.

26.) Water gets cooled in earthen pots because, water seeps out on surface through the pores in the pot and it evaporates. The heat required for evaporation is taken from water inside pots therefore it becomes cooler.

27.) Doctors advise to put strips of wet cloth on the forehead of a patient having high fever. The reason is that water of strips evaporates. During,

Evaporation, water takes heat from the Body of patient and thus, the temp of his body decreases.

28. Sublimation is Process by which a solid when heated, directly changes into its Vapour without changing into liquid.
Eg- Naphthalen balls when heated turns to vapour.

29. The size of Naphthalene balls decrease because, ~~the process~~ it is Application of Sublimation, so, sublimation occurs faster in Naphthalene balls

30. Take Camphore or Ammonium chloride Powder it, keep the powder in china dish, now cover the dish with inverted funnel. Then close the end of funnel with cotton. Now heat it with Bunsen, we will see that the Vapour of Ammonium chloride occurs in funnel ~~it~~. it cools down and change into Ammonium chloride which gets deposited.

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