CHEMISTRY NOTES

CLASS9_ THE MATTER IN OUR SURROUNDINGS_ (TERM1)

Q.1 Camphor disapperars without leaving any residue. Explain?
Ans. Camphor disappears without leaving any residue because
of sublimation, as it changes its state
directly from solid to gas without changing to liquid.
Q.2 Why do we feel cool when we touch a piece of ice?
Ans. We feel cool because the temperature of ice is 0 deg C and our body's temp is higher than 0 deg C.
Q.3 Convert the following:
a) 573 K
Ans. 573-273= 300 deg

b) 36 deg C
Ans. 273+36 = 309 K

c) 373 deg C
Ans. 373+273= 646 K

Q.4 Both the process of evaporation and boiling involves the change of state from liquid to gas but still they are different from each other. Justify.

Ans. Evaporation is different from boiling as evaporation is a natural phenomenon, occurs on the surface of the water and also it is a slow process whereas boiling is an artificial phenomenon , it occurs in the bulk of liquid and is a fast process

Q.5 Why is Kelvin considered as the best scale for measuring the temperature?
Ans. Kelvin is the best scale for measuring the temperature because it has no max temp. and it can measure temperature to any extent.

Q.6 How can you show that evaporation causes cooling?
Ans. When we put some acetone on our hand , after sometime we will feel coolness on our hand because the action absorbs kinetic energy from our hand & evaporates and evaporation causes cooling.

Q.7 What is the significance of boiling point & melting point of a substance?
Ans. The significance of boiling point and melting point is that it shows the purity of the substance.

Q.8 When we put CuSO4 in water, after sometime we find the soln. turns blue. Why? Also, on heating it what change will occur?

Ans. The solution turns blue because of diffusion. On heating the solution nothing will happen.

Q9.How can you justify that table is a solid?
Ans. When we apply force on the table it doesn't change its shape because its intermolecules are tightly packed , this shows that table is solid.

Q.10 Arrange the following in decreasing order of force of attraction: Water, Salt, Oxygen,
Also, state the reason.
Ans. Salt, Water, Oxygen

Salt has the maximum force of attraction as it is a solid, followed by water as it is a liquid. Oxygen is a gas so its force of attraction is the least.

Q11. State characteristics of matter demonstrated by :

a) diffusion

Ans. Diffusion involves movement of different particles so that they become intermixed uniformly .

b) Brownian motion

Ans.It is the zig-zag movements of the small particles suspended in a liquid in a liquid or a gas.

Q.12 When an incense stick (agarbatti) is lighted in one corner of a room, its fragrance spreads in the whole room quickly .Which characteristic of the particles of matter is illustrated by this observation?

Ans. Particles of matter are constantly moving.

Q.13 The boiling point of alcohol isn 78 deg C. What is this temperature on Kelvin scale?

Ans. K= Deg C + 273 = 78 + 273 = 351 K

Q. 14 The Kelvin scale temperature is 0 K. What is the corresponding Celsius scale temperature?

Ans. -273 degree Celsius.

Q. 15 What is Latent Heat of Fusion?

Ans. The latent heat of fusion (or melting) of a solid is the q uanity of heat in joules required to convert 1 kilogram of the solid (at its melting point ) to liquid, without any change in temperature.

Q. 16 Define latent heat of Vaporisation?

Ans. The latent heat of vaporisation of a liquid is the quantity of heat in joules required to convert 1 kilogram of the liquid (at its boiling point ) to vapour or gas, without any change in temperature.