Chapter-1

Worksheet-1

Q.1 CO_2 can be easily liquified and even solidified because
(a) It has weak forces of attraction
(b) It has comparatively more force of attraction than other gases
(c) It has more intermolecular space
(d) It is present in atmosphere.

Q.2 Which of the following has heighest kinetic energy?
(a) Particles of ice at 0 °C
(b) Particles of water at 0 °C
(c) Particles of water at 100 °C
(d) Particles of steam at 100 °C

Q.3 Bose-Einstein Condensate have
(a) Very low kinetic energy
(b) Low kinetic energy
(c) High kinetic energy
(d) Highest kinetic energy.

Q.4 Which of the following is most suitable for summer?
(a) Cotton
(b) Nylon
(c) Polyester
(d) Silk.

Q.5 Which of the following is incorrect about plasma?
(a) Fluorescent tube and neon sign bulbs consist of plasma.
(b) The gas gets ionised when electrical energy flows through it.
(c) It consists of super-energetic and super-excited particles.
(d) The plasma glows with colour which does not depend upon nature of gas.

Q.6 The colour of vapours formed on sublimation of iodine solid is

(a) Purple (violet)
(b) Colourless
(c) Yellow
(d) Orange

Q.7 Under which of the following conditions we can boil water at room temperature?

(a) At low pressure
(b) At high pressure
(c) At very high pressure
(d) At atmospheric pressure

Q.8 Which of the following is not endothermic process?

(a) Fusion
(b) Vapourisation
(c) Temperature
(d) Insoluble heavy impurities

Q.9 Which of the following does not affect rate of evaporation?

(a) Wind speed
(b) Surface area
(c) Temperature
(d) Insoluble heavy impurities

Q.10 Kinetic energy of molecules is directly proportional to

(a) Temperature
(b) Pressure
(c) Both (a) and (b)
(d) Atmospheric pressure

Q.11 Describe in your own words, what happens to the particles when salt dissolves in water?

Q.12 Explain why, we can easily move our hand in air but to do the same through a plank of wood, we need a karate expert.

Q.13 Which of the following diffuses fastest and which the slowest?

Solid, Liquid, Gas

Give reasons for your answer.

Q.14 What happens when an inflated air balloon is pricked with a pin? Name the property of the gaseous state exhibited by this observation.

Q.15 State two characteristic properties each of:

(a) a solid

(b) a liquid

(c) a gas

Q.16 Give two reasons to justify that:

(a) Water is a liquid at room temperature.

(b) An iron almirah is a solid.

Q.17 (a) What is meant by 'diffusion'? Give one example of diffusion in gases.

(b) Why do gases diffuse very fast?

(c) Name two gases of air which dissolve in water by diffusion. What is the importance of this process in nature?

Q.18 (a) Why does a gas exert pressure?

(b) Why does a gas fill a vessel completely?

(c) Why are gases so easily compressible whereas it is almost impossible to compress a solid or a liquid?

Q.19 (a) What is Brownian motion? Draw a diagram to show the movement of a particle (like a pollen grain during Brownian motion.)

Q.20 Explain why:

(a) air is used to inflate tyres.

(b) steel is used to make railway lines.