Matter

OBJECTIVE TYPE QUESTIONS

Question 1.

Fill in the blanks:

(a) Water is a matter because it has **mass** and occupies **space.**
(b) Any matter which has a definite **volume** but no definite shape is called a **liquid.**
(c) Liquids and **gases** can flow.
(d) The molecules are at a greater distance in **gases** compared to liquids.
(e) Water boils at 1**00 °C.**
(f) The physical state of a substance, which has neither fixed volume nor fixed shape is a **gas.**

Question 2.

Write whether the following statements are true or false.

(a) Only water can exist in three different states. **True**
(b) If the container in which a gas is collected has an opening, the gas will flow out and spread itself indefinitely. **True**
(c) Solids have the large inter-molecular space. **False**
(d) There is no difference between evaporation and boiling. **False**
(e) All solids, on heating, first change to the liquid and then to the gaseous state always. **False**
(f) The intermolecular force of attraction is the weakest in gases. **False**
(g) A gas has no free surface. **True**
(h) Solids are highly compressible and rigid. **True.**
(i) Atoms/molecules in gases move only about their own positions. **False.**
(j) The conversion of water to ice is called freezing. **True.**

Question 3.

For each of the following statements, say whether it describes a solid, a liquid or a gas.

(a) Particles move about very quickly but do not leave the surface : **Liquid**
(b) Particles are quite close together : **Solid**
(c) Particles are far apart and move in all directions : **Gas**

Question 4.

Match the following :

	Column A		Column B
(a)	Solids	(*i*)	Can flow in all directions.
(b)	Sublimation	(*ii*)	The temperature at which a liquid changes into its gaseous state.
(c)	Boiling point	(*iii*)	Can have any number of free surfaces.
(d)	Gases	(*iv*)	Gaps between particles.
(e)	Intermolecular space	(*v*)	Change of state from solid to gas.

Ans.

	Column A		Column B
(a)	Solids	(iii)	Can have any number of free surfaces.
(b)	Sublimation	(v)	Change of state from solid to gas.
(c)	Boiling point	(ii)	The temperature at which a liquid changes into its gaseous state.
(d)	Gases	(i)	Can flow in all directions.
(e)	Intermolecular space	(iv)	Gaps between particles.

Question 5.

Name the phenomenon which causes the following changes:

(a) Formation of water vapor from water.

Answer: Formation of water vapour from water is **vaporisation.**

(b) Disappearance of camphor when exposed to air.

Answer: Disappearance of camphor is **sublimation.**

(c) Conversion of ice into water.

Answer: Conversion of ice into water is **melting.**

(d) Conversion of water into steam.

Answer: Conversion of water into steam is **boiling.**

Question 6.

Give two examples for each of the following:

(a) Substances which sublime.
(b) Substances which do not change their states.
(c) Substances which are rigid and not compressible.

Answer:

(a) Naphthalene, camphor, dry ice.
(b) Oxygen, hydrogen, nitrogen
(c) Glass, stone, pen.

Question 7.

Fill in the blanks with the correct words from the bracket.

1. From the three states of matter,_____(**solids** / liquids / gases) expand the least.
2. Brownian movement is maximum in_____ (**gases** / solids / liquids).
3. Cohesive forces are negligible in_____(liquids / solids / **gases**)
4. Matter can change from one state to another by change in_____[**temperature or pressure** /temperature only].
5. The space between atoms' [molecules] of solids is_____[**minimum** / maximum].
6. Intermingling of molecules is called_____[perforation / **diffusion**].
7. Ice on absorption of heat converts to 'X' a process called_____[vaporization / **melting**]. 'X' changes to water vapour on_____[**heating** / cooling]. Water vapour changes back to 'X' on_____[freezing / **condensation**]. The constant temperature at which ice changes into 'X' is called its___[**fusion point** / melting point / boiling point].
8. Solids and liquids have a definite **volume** but gases do not.
9. The space between atoms in **gases** is maximum while in solids is minimum.
10. Conversation of a vapour into a **liquid** is called condensation.
11. **Wax, sugar** is an example of a crystalline substance.