

STD-VI PHYSICS Assignments (Solved Q.1-5) On Chapter Matter .

Note: Learn and Write these questions and answers in the notebook in a neat and clean way with proper margins and date.

Q1. Define the following terms: a) Matter b) Atom c)Molecules.

Matter- Anything which occupies space and has mass, and could be perceived by our senses of smell, touch, sight, hearing and taste.

Atom - Matter is composed of tiny particles called “**Atoms**”. An atom is the smallest constituent unit of ordinary matter that constitutes a chemical element.

Molecules - The smallest unit of matter which can exist independently is called molecule .

Q2. Mention the 03 states of matter along with examples.

The 03 states of matter are :

Solid- has definite shape and volume. Examples:- wood, stone, book, ice, etc...

Liquid- has definite volume but no definite shape. Examples:- water, juice, milk, oil, etc..

Gas- has neither definite shape nor definite volume. Examples:- air, hydrogen, oxygen, water vapour, etc..

Q3. What do you mean Intermolecular spacing and Inter Molecular Force of attraction.

Inter Molecular Spacing- The space between any two consecutive molecules of a substance is called intermolecular Spacing .

Inter Molecular Force of attraction - The force of attraction between the molecules(like molecules or unlike molecules) is called Inter molecular Force of Attraction.

Q4. State 03 properties of solid , liquid, gas.

- **Properties of solids:** (i) Solids have definite shape and distinct boundaries.
(ii) Solids have fixed volume.
(iii) They have negligible compressibility.
- **Properties of liquids:** (i) Liquids do not have definite shape and distinct boundaries.
(ii) Liquids have fixed volume.
(iii) They can be compressed.
- **Properties of gas:** (i) Gases neither have definite shape nor have fixed volume.
(ii) They can be compressed much.
(iii) They can take any shape.

Q5. State four characteristics of molecules of matter.

04 characteristics of molecules of mater are:

1. They are very small in size. 2. They have spaces between them. 3.The are constant in random motion. 4.They always attract each other.

STD-VI PHYSICS Assignments (Solved Q.6-11) On Chapter Matter .

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Q6. Give the reason why dissolving 20gm of salt in 100ml of water we see that the level of water does not change.

The reason behind the not increased level in water is just because of the particles of salt occupy the spaces between the particles of water when the 20gm salt is dissolved in 100ml of water.

Q7. What do you mean why Cohesion and Adhesion Forces.

Cohesion Force- The force of attraction between the molecules of similar kind is called force of cohesion. Example- forces between the water molecules which binds the molecules together.

Adhesion Force- The force of attraction between the different types of molecules is called Adhesion. Example- When the glass filled with water is emptied , some water particles remain stuck in the class due to adhesion between glass and water molecules.

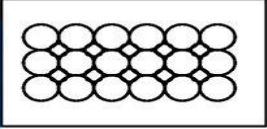
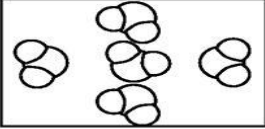
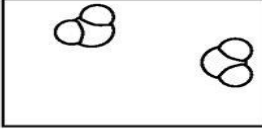
**Q8. How do Solid/Liquid/Gas differ in their following properties:
size/shape/density/compressibility/fluidity/rigidity/expansion on heating.**

Properties	Solid	Liquid	Gas
Size	- Have a definite size,	Indefinite size,	Indefinite size.
Shape	- Have a definite shape,	Indefinite shape,	Indefinite shape.
Density	- Highly dense,	Less denser than solids,	Less denser than liquids and solids.
Compressibility	- Not Compressible,	Negligibly Compressible,	Highly Compressible.
Fluidity	- Not Possible,	Can flow ,	Can flow.
Rigidity	- highly rigid,	Less rigid ,	Not rigid.
Expansion	- Low,	More than solids,	more than Liquids.

Q9. What Type of path the molecules follow in a substance in motion?

The particles in a substance are not at rest (in motion) and they move randomly in all possible directions in a zigzag path.

Q10. State and draw the molecular arrangements of states of matter.

	 solid	 liquid	 gas
Nanoscopic	Molecules are very close together and densely packed	Molecules are closer together but still very separated	Molecules are very far apart
Shape	Will form its own shape and be rigid or fixed	Will take the shape of the container	Will take the shape of the container
Volume	Has a constant volume independent of the size of the container	Has a constant volume independent of the size of the container	Takes the volume of the container
Particle motion	Local vibration in a fixed position, no long-range motion	Random motion throughout the container	Random motion throughout the container

Q11. What do you mean by the change of state of matter ? Explain the change of solid into its liquid or liquid changing into its gaseous form at certain temperature.

The change of state of matter where a solid is changing into its liquid form or a liquid is changing into its gas form at a certain temperature, process are involved such as:

Melting (Fusion)- When the solid is changing into its liquid form at a certain temperature the molecules of the solid start moving from its mean position which lets it to flow , thus changing into its liquid form , where the process is melting and heat is absorbed. Example: 0'celcius the Melting of Ice occurs.

Boiling(Vaporization)- When the Liquid is changing into its gaseous form at a certain temperature the molecules of the solid start moving rapidly from its mean position which lets it to flow randomly , thus changing into its gaseous form , where the process is boiling and heat is absorbed . example:- Water converting into steam at 100'celcius when it is boiled.