TENDER HEART SCHOOL, SEC-33B, CHD 29.4.24

CLASS - VII SUBJECT - CHEMISTRY

CHAPTER - 1 TEACHER - MOHNISHA THAKUR

ANSWER-KEY

Matter And Its Composition

Exercise

Ans1:- Matter can be defined as anything that has mass, occupies space and can be perceived by our senses.

Ans2:-

Mass	Weight
1) Mass is simply the measure of the amount of matter in a body.	1) Weight is the measure of the amount of force acting on a mass due to acceleration due to gravity.
2) Mass is denoted by "M".	2) Weight is denoted by "W".
3) Mass is always constant for a body and there are several formula as to calculate mass.	3) Weight is the measure of the gravitational force acting on a body
4) One way to calculate mass is: Mass = Volume x density.	4) Weight can be calculated from the following formula. Weight = mass x acceleration due to gravity.

Ans3:- Weight of body on moon = 1/6 th of its weight on earth
∴ Body will weigh 1/6 of 6 = 1/6 x 6 = 1N on moon
Mass of a body does not change with change in gravity. So mass of a body will remain the same on moon.

Ans 4:- (a) Take some marbles and put them into the water of glass tumbler one by one. After some time you will notice that water level crosses the mark and rises. This is because the marbles occupy space. Again

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weigh the glass with the marbles. You will find that the second mass is greater than the first one. This proves that, marbles have mass.

This proves that; matter has mass and occupies space

(b) Ice when kept at room temperature again changes back into liquid water.

Ans5 :- Given in the text.

Ans6 :-

Atom	Molecule
1) It is the smallest particle with properties of an element.	1) It is the combination of two or more atoms.
2) An atom may not always be stable in nature due to the presence of electron -s in the outer shells.	2) Molecules are formed to attain stability.
3) Protons, Electrons & Neutrons	3) Two or more atoms of the same or different elements

Ans7 :- Refers to the text.

Ans8 :- Because they have tendency to flow.

Ans9 :- (a) Interconversion of states of matter is the process by which matter changes from one state to another and back to original state without any change in its chemical composition, when conditions are changed.

(b) Solids, liquids and gases differ in their physical states due to the difference in molecular arrangements

(c) Solids, liquids and gases change their state under two conditions : by change in temperature
by applying pressure

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Ans10 (a) The small sugar particles adjust themselves b/w the water molecules therefore the water level does not rise. The stone dipped in water occupies space & displaces water, due to which the level of water rises.

(b) A drop of ink added to water in a glass turns the whole water blue because the water as well as ink molecules are in continuous random motion. The blue ink particles move and spread every where making the water blue.

Ans11- (a) Air is a matter because it has mass and volume and it can be perceived by our senses.

(b) The molecules are made up of atoms.

(c) The quantity of matter in an object is called its mass.

(d) The state of matter with definite volume & definite shape is called solid.

(e) The substances which can flow are called fluids.

Ans12- (a) Melting (b) Intermolecular force of attraction.

(c) Atom (d) Sublimation (e) Condensation

Ans13- Solid – Coal, wood, sugar, wax.

Liquid – Kerosene, blood, milk.

Gas – Oxygen, water vapour

* (End) *