

TENDER HEART HIGH SCHOOL, SEC-33B, CHD
 CLASS - VIII SUBJECT - CHEMISTRY
 CHAPTER - Chap-1 TEACHER - ANAMIKA

30.09.24

Chemistry is branch of science in which we study about matter. The basic units of matter in any state is considered as molecules. This is because a molecule is the smallest particle of matter which is capable of independent existence.

- **Atomicity:-** The number of atoms in a molecule of an element is called as atomicity.
- **Monoatomic molecule:-** Element having only one atom in their molecule. Example Noble gases; metals & Carbon.
- **Diatomic:-** Having 2 atoms e.g. H_2 , O_2 , N_2 .
- **Triatomic:-** Having 3 atoms e.g. O_3 .
- **Tetratomic:-** Having 4 atoms e.g. P_4 .
- **Octatomic:-** Having 8 atoms e.g. S_8 .

A Compound is a substance formed by chemical combination of two or more elements in a fixed proportion.

Symbol:- It is the short form that stands for the atom of a specific element.

or the abbreviation used for the name of an element.

Significance of Symbol:-

It represents:-

- (i) Name of the element
- (ii) One atom of the element

Valency:- The number of electrons that an atom can lose, gain or share during a chemical reaction is called its valency.

Variable Valency:- Certain element exhibit more than one valency. because there is loss from penultimate shell too.

Formula:- The symbolic representation of a molecule is known as formula or molecular formula

Molecular formula:- Molecular formula is also known as chemical formula employs symbol to denote the molecule of an element or of compound.

Radicals:- A radical is an atom or a group of atoms or molecules that behaves as a single unit with positive or negative charge.

Writing Chemical formulae:-

- (i) Write the symbol side by side, basic radical is written first & then acidic radical.
- (ii) Write the valency of each atom on top of its symbol.
- (iii) Interchange the valencies of radicals

Questions

Q Write chemical formula of the following compounds:-

- | | |
|--|---|
| (i) $\text{Ca}_3(\text{PO}_4)_2$ | (vi) $\text{Ba}(\text{ClO}_3)_2$ |
| (ii) K_2CO_3 | (vii) Ag_2SO_3 |
| (iii) K_2MnO_4 | (viii) $(\text{CH}_3\text{COO})_2\text{Pb}$ |
| (iv) $\text{Mn}_2(\text{BO}_3)_2$ | (ix) Na_2SiO_3 |
| (v) $\text{Mg}(\text{HCO}_3)_2$ | |
| (vi) $\text{Na}_4\text{Fe}(\text{CN})_6$ | |