



STD 10– FIRST BELL – CHEMISTRY

READINESS CLASS-03

Oxidation and Reduction

- Oxidation is the process of loss of electrons.eg: $\text{Mg} \rightarrow \text{Mg}^{2+} + 2\text{e}^-$
- Reduction is the process of gain of electrons.eg: $\text{Cl} + 1\text{e}^- \rightarrow \text{Cl}^-$

Group Number	Oxidation state	Valency
1	+1	1
17	-1	1
2	+2	2
16	-2	2
13	+3	3
15	-3	3
14	+4 or -4	4

Chemical formula

a. Magnesium Chloride

$_{12}\text{Mg}$: oxidation number +2

$_{17}\text{Cl}$: oxidation number -1

Inter changing oxidation number



b. Aluminium oxide

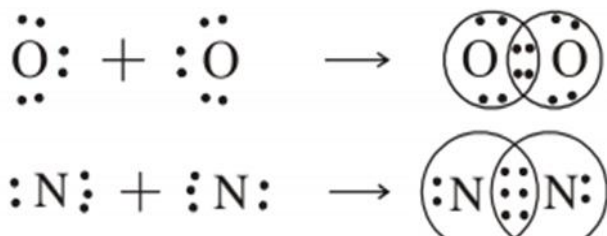
$_{13}Al$: oxidation number +3

$_8O$: oxidation number -2

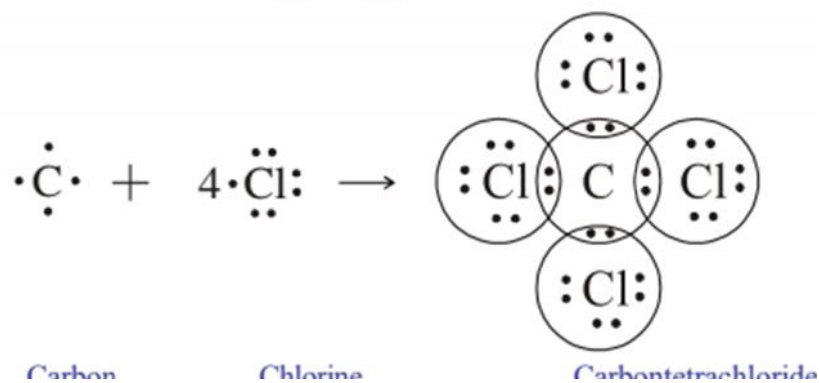


Covalent bonding

- The chemical bond formed as a result of the sharing of electrons between the combining atom is called a covalent bond.
- Covalent bond formed by sharing one electron is called a single bond.
- Double bond (Two pairs of electron sharing), Triple bond (Three pairs of electron sharing)
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- Formation of carbon tetrachloride



HOME WORK

1. Draw the electron dot diagram of CH_4

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