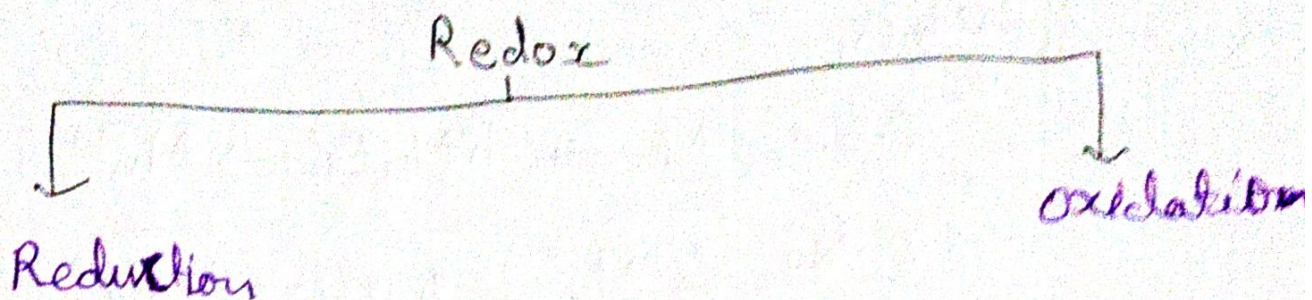


Date
11/07/2020

D. B. College (Jaynagar) Chemistry Department

B.Sc. (Sub) Redox Reaction

Akhillesh Kumar Singh roll no. 2750380327



Those react in which oxidation & reduction takes place simultaneously.

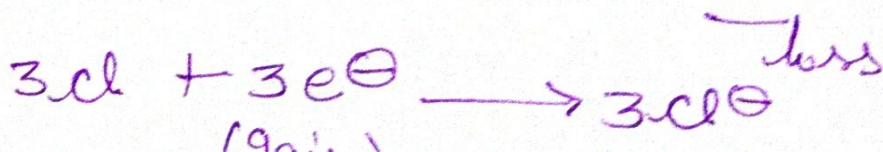
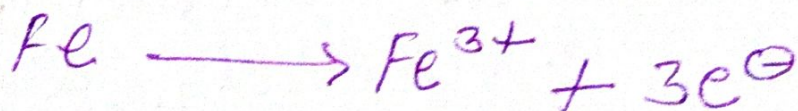
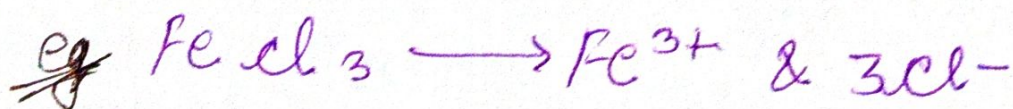
OR

Those react in which transfer of e^- from one chemical substance to another takes place is called redox react

Those react in which \uparrow use of weight of one substance & \downarrow use of weight of another substance takes place simultaneously.

Oxidation Number :- (O.N.)

The no. of e^- lost or gain by an atom or a molecule is called O.N.



O.N. of Fe $\rightarrow +3$

O.N. of Cl $\rightarrow -1$

Oxidation State / O.N. Per atom

KMnO_4

O.S. of Mn in $\text{KMnO}_4 \rightarrow \text{Mn}^{7+}$

O.N. of Mn in $\text{KMnO}_4 \rightarrow +7$

FeCl_3

O.S. of Fe $\rightarrow \text{Fe}^{3+}$

O.N. of Fe $\rightarrow +3$

O.S. of Cl $\rightarrow \text{Cl}^-$

O.N. of Cl $\rightarrow -1$

HgCl_2

Hg^{2+} O.N. of Hg = +2

Hg_2Cl_2

Hg_2^{2+} O.N. of Hg = +1

CuCl_2

Cu^{2+} O.N. of Cu = +2

Cu_2Cl_2

Cu_2^{2+} O.N. of Cu = +1

O_3^-

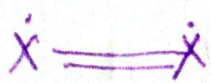
O.N. of O = $-\frac{1}{3}$

Important Points:-

1. O.S. is formed due to E.N. difference.



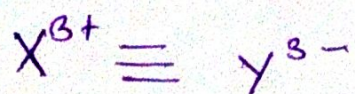
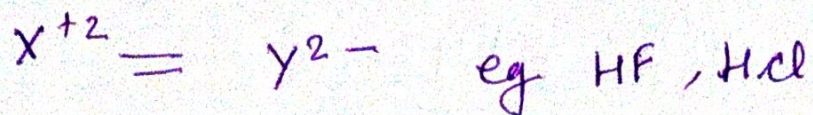
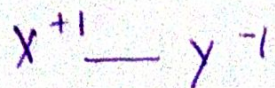
eg: $\text{H}_2, \text{Cl}_2, \text{F}_2$



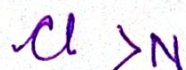
eg: O_2



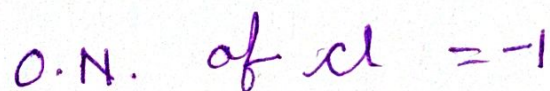
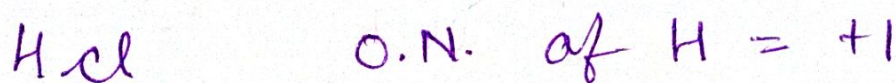
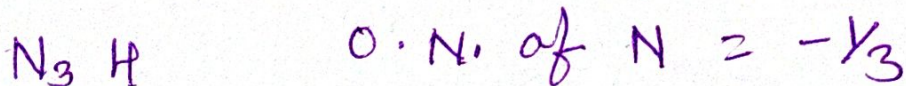
eg: N_2



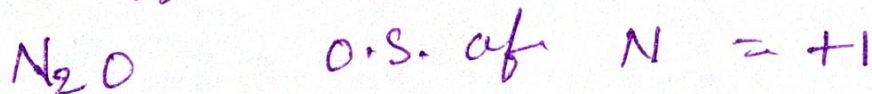
2. E.N. of 2 elements is not same

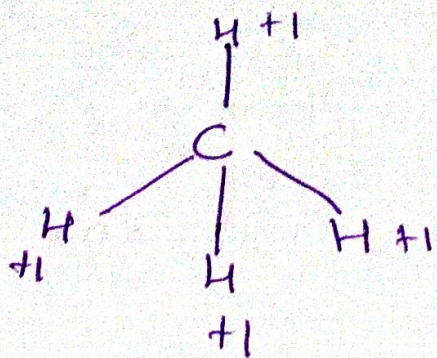
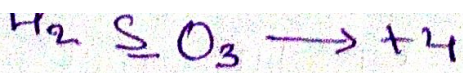


3. O.S. may be zero, +ve, -ve or fractional value.



4. O.S. of same atom may be same or different in different compounds.





O.N. of C = -4

