

D. B. College (Jaynagar)

Lect-1

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Chemistry Department B.Sc (Sub)

Mob:- 8750390927

Redox

↓
Reduction

↓
Oxidation

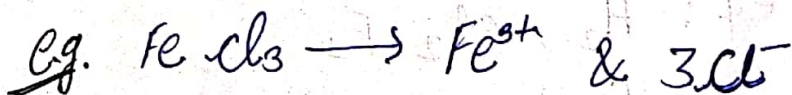
Those react in which oxidation & reduction takes place simultaneously.

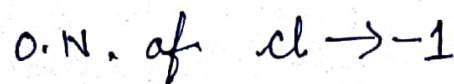
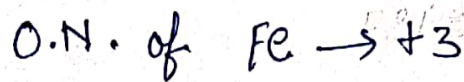
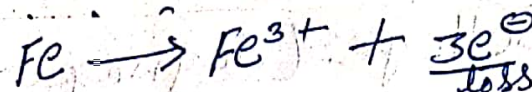
Those react in which transfer of e⁻ from one chemical substance to another takes place is c/a redox react

Those react in which ↑se of weight of one substance & ↓se of weight of another substance takes place simultaneously.

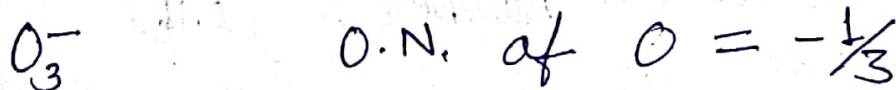
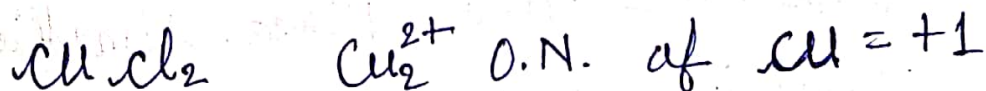
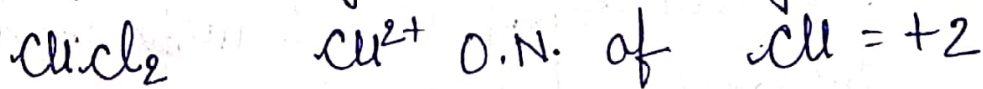
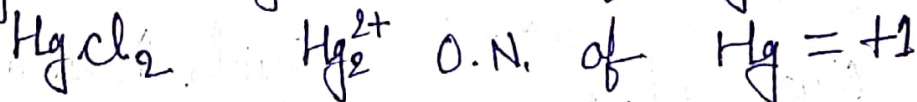
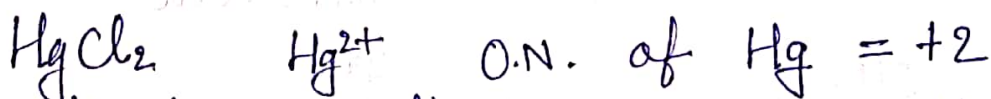
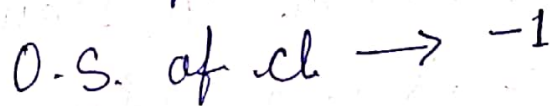
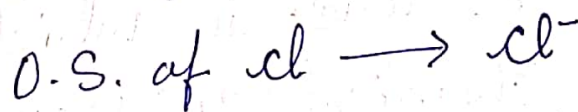
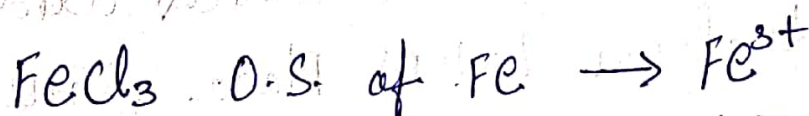
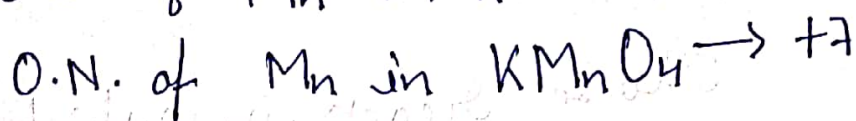
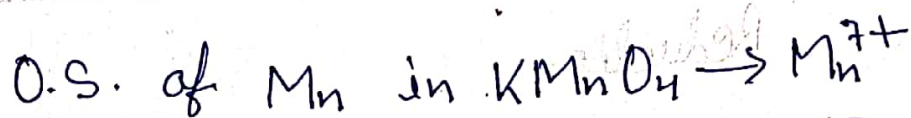
Oxidation Number :- (O.N.)

The no. of e⁻ lost or gain by an atom in form of molecule is c/a O.N.



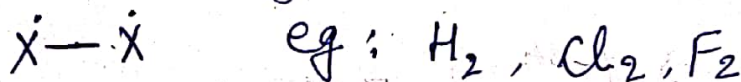


Oxidation state: O.N. Per atom KMnO_4



Important Points: —

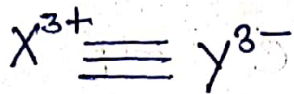
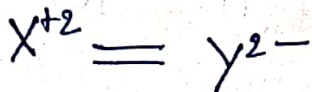
1. O.S. is formed due to E-N. difference.



E.N. $Y > E.N. X$



eg HF, HCl



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

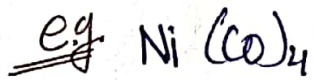
$Cl > N$

$P > H$

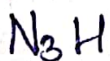
$S > C$

$C > H$

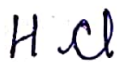
3. O.S. may be zero, +ve, -ve or fractional value



O.N. of Ni = 0



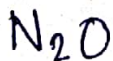
O.N. of N = $-\frac{1}{3}$



O.N. of H = +1

O.N. of Cl = -1

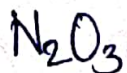
4. O.S. of same atom may be same or different in different compounds.



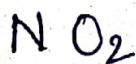
O.S. of N = +1



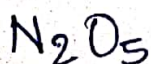
= +2



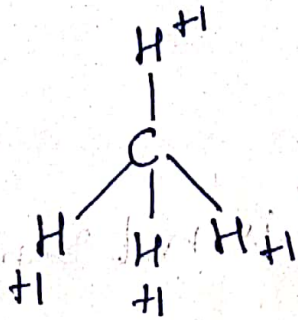
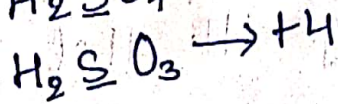
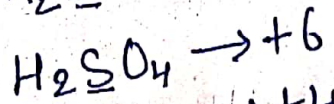
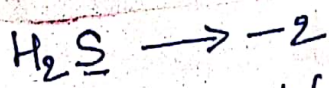
= +3 $HNO_2 \rightarrow +3$



= +4



+5 $HNO_3 = +5$



ON. of C = -4

