

Akhilesh Kumar Singh

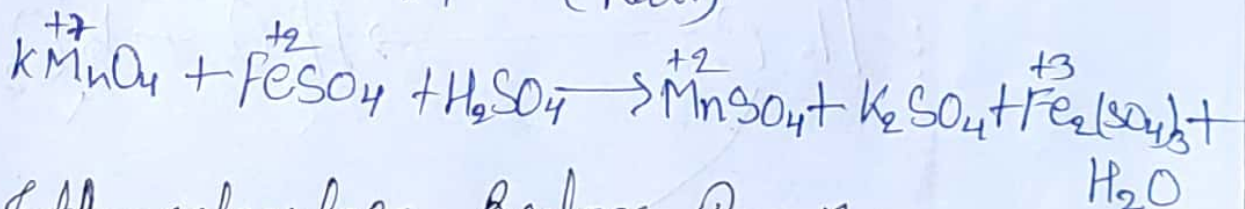
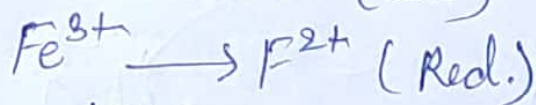
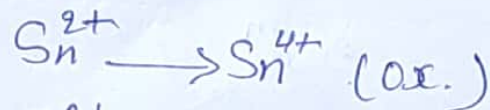
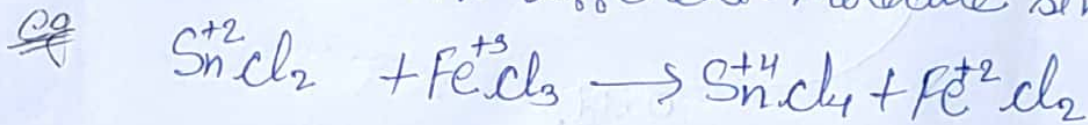
Chemistry department B.Sc (Sub)

Mob:- 8750390927

Type of Redox reactions:-

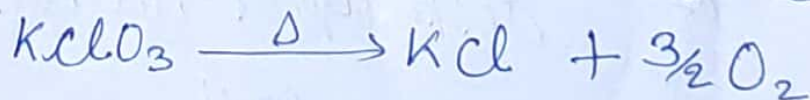
1. Inter Molecular Redox Reaction:-

In these type of reaction, oxidation & reduction takes place b/w different molecule simultaneously.



2. Intramolecular Redox Reaction:-

In these type of reaction, oxidation & reduction takes place within a same molecule.

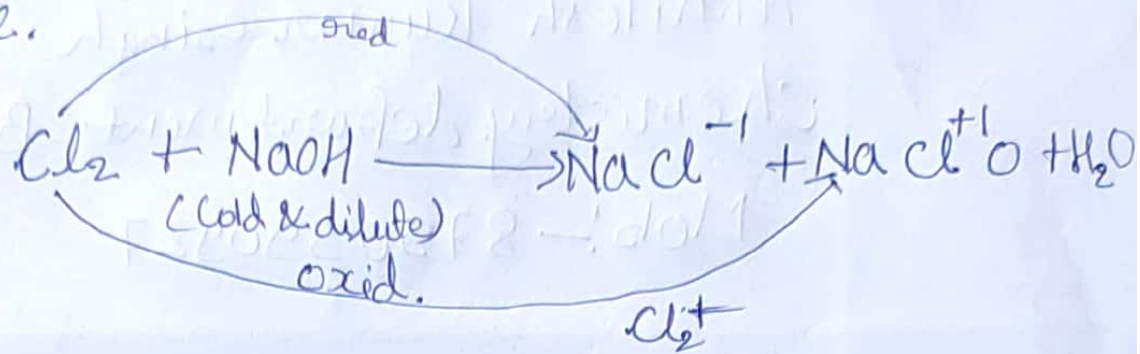


3. Disproportionation reaction:-

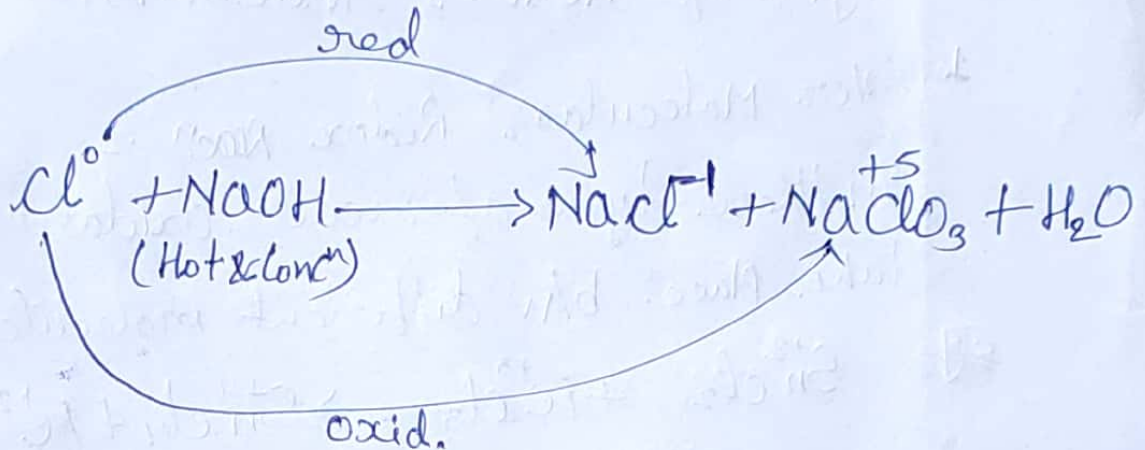
In these type of reaction, oxidation & reduction

of an elements in single. Compound takes place.

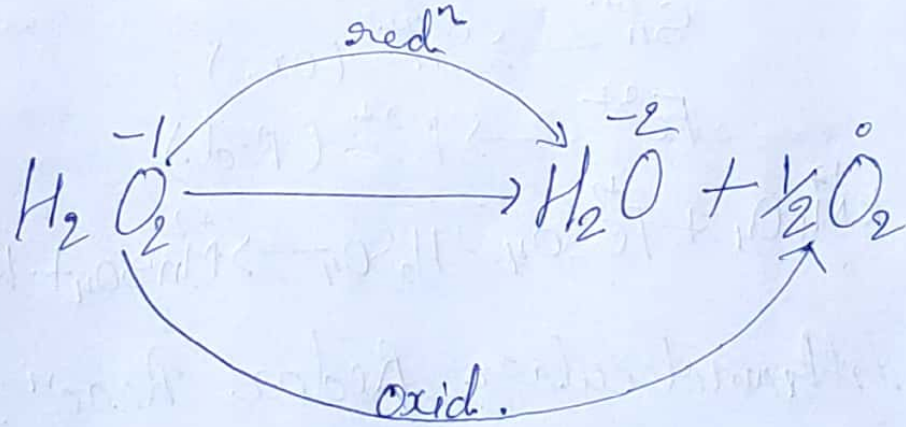
eg
imp



imp

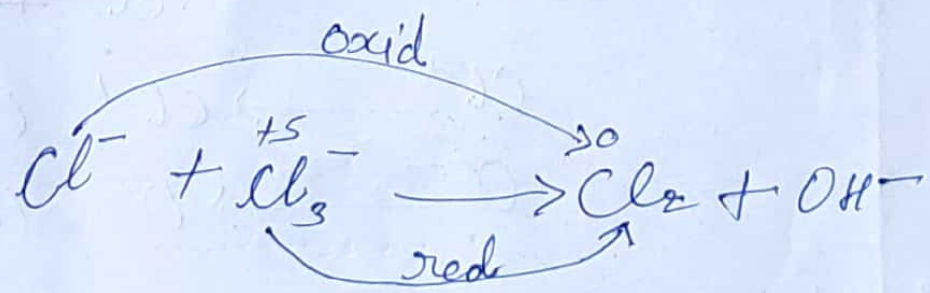


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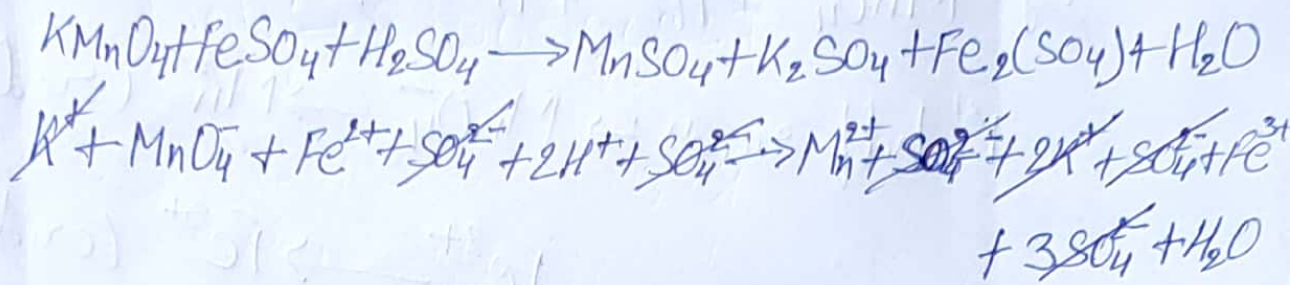
4. Comproportionation reacⁿ :- It is reverse of disproportionation.

eg



Balancing of Redox Reacⁿ:-

Step:-1 Balance the following reacⁿ and find Spectator ion. $\text{KMnO}_4 + \text{FeSO}_4 +$



Spectator ion :- $\text{K}^+, \text{SO}_4^{2-}$

↳ Those ions which do not undergo any reduction & oxidation in chemical reacⁿ



1. Ion Electron Method:-

In acidic Medium:

① write 2 half reacⁿ $\begin{matrix} \text{oxid.} \\ \text{Red.} \end{matrix}$

② balance 1st half reacⁿ

balance central atom

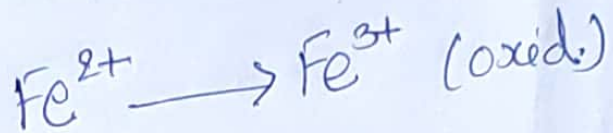
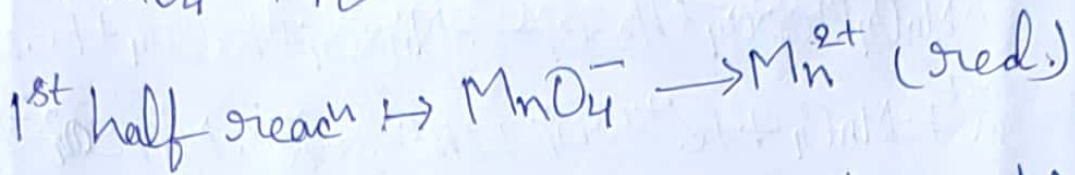
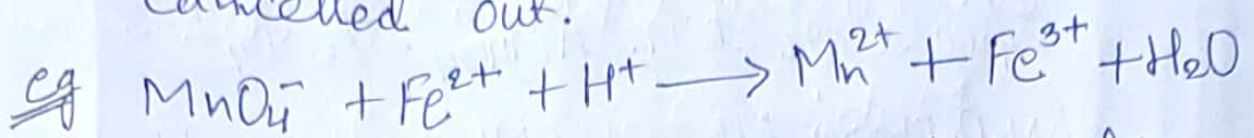
• oxygen (addition of H_2O on another side)

• hydrogen (addition of H^+ on another side)

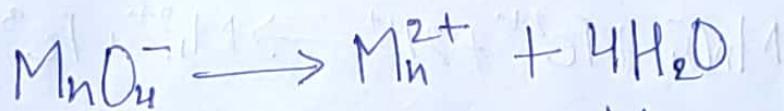
• charge (addition of e^-)

③ Similarly balance 2nd half reacⁿ

④ Add both reactions by multiplying proper stoichiometry coefficients so that e^- get cancelled out.



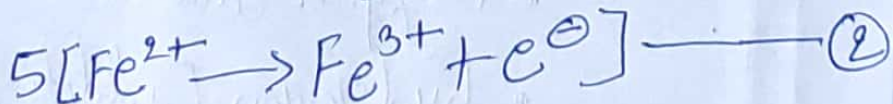
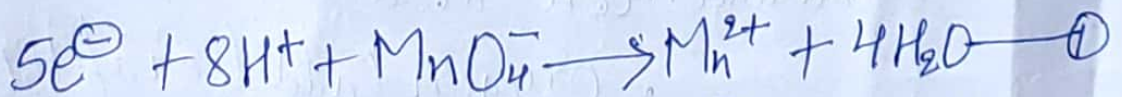
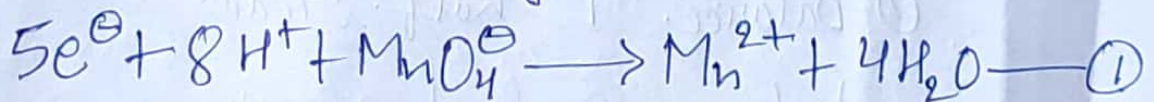
$MnO_4^- \rightarrow Mn^{2+}$. Central atom is balanced
balance O-atoms by adding H_2O on another side.



balance H-atoms by adding H^+ ion on another side.



Balance charge



① + ② x 5

