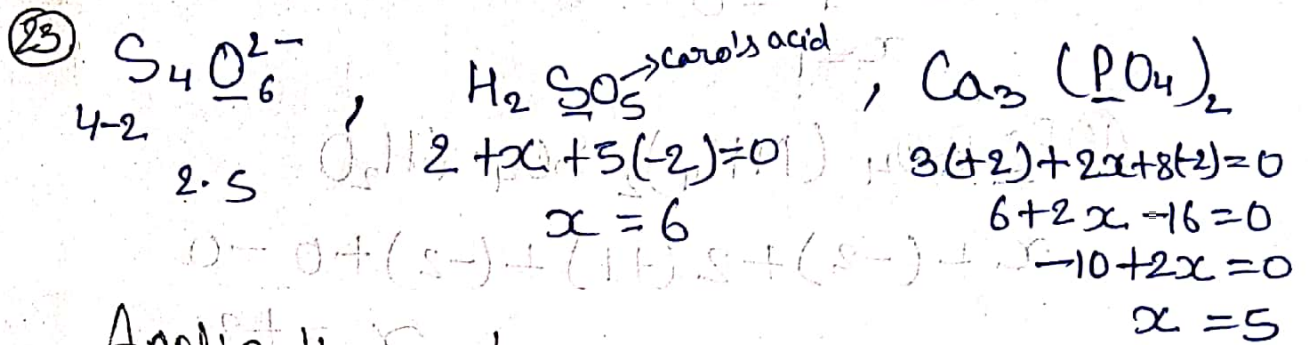


D. B. College (Jaynagar) Lect-5

Akhilesh Kumar Singh

Chemistry department B.Sc (sub)

Mob:- 8750390927



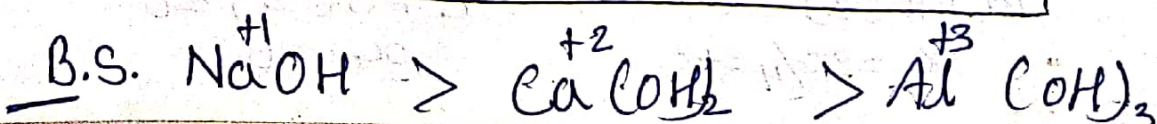
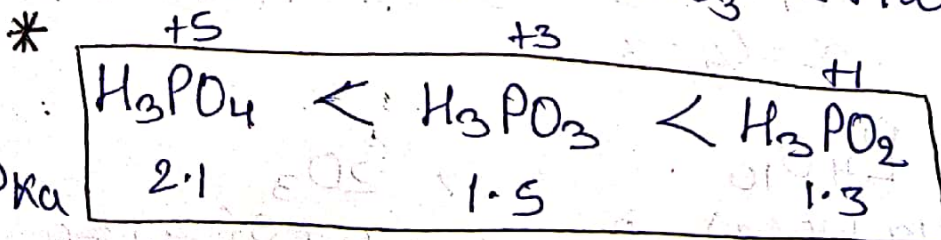
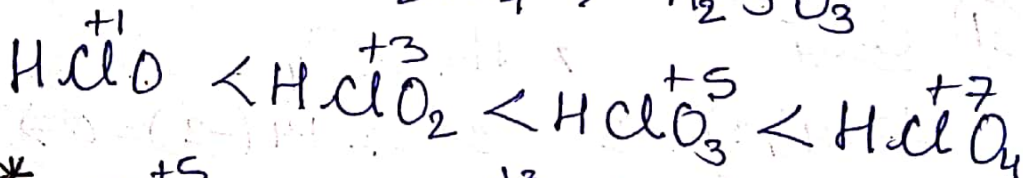
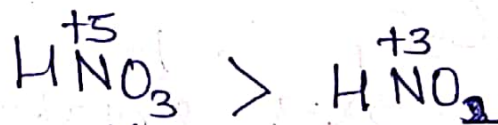
Application of O.N. :-

To determine strength of acid or bases

A.S \propto O.N. of C.A

B.S. $\propto \frac{1}{\text{O.N. of C.A}}$

A.S.



To determine Oxidising agent & Reducing Agent
 Oxidising Agent :- which accept e^- in
 chemical reaction is c/a O.A.

Generally O.A. जै अपन Max^m O.S. है।

Reducing Agent :- which donate e^- in chemical
 reaction is c/a R.A.

Generally R.A. जै अपन Min^m O.S. है।

Max ^m O.S.	+1	+4	+5	+2	+5	+6	+7	+8	+8	+8	
elements	H	C	N	O	F	P	S	Cl	Co	Mn	Fe
min ^m O.S.	-1	-4	-3	-2	-1	-3	-2	-1	0	0	0

+8	+8
OS	Ru
0	0

$KMnO_4, K_2Cr_2O_7, HClO_4, H_2SO_4, HNO_3 \rightarrow$

works as O.A.

\rightarrow Max. O.S.

$NH_3, H_2S, HCl, CH_4, PH_3 \rightarrow$ work as R.A.

min^m O.S.

SO₂ , HNO₂ , HClO₂ , MnO₂ → work as O.A. / R.A.
 +4 +3 +3 +4 → b/w max^m & min^m OS

Ques which of the following work as O.A. / R.A.

1. H₃PO₄ O.A.
 +3 +5 -8

2. H₂SO₄ O.A.
 +2 +6 -8

3. K₂Cr₂O₇ O.A.
 +2 +6 -4

4. N₂O₅ O.A.
 +5 +1

5. H₂S O.A.
 +1 -2

6. NH₃ R.A.
 -3 +1

7. H₂O₂ O.A.
 +1 -1

8. H₂O O.A.
 +1 -2

9. HBrO₂ O.A.
 +1 +3 -2

10. HI O.A.
 +1 -1

11. N₂O₃ both
 +3 +1 -2

12. H₂SO₃ both
 +4 +2 -2

13. KMnO₄ O.A.
 +7 +1 -2

14. MnO₂ both
 +4 +2 -2

15. Cr₂O₃ both
 +3 +3 -2

* (CH₃)₂SO

