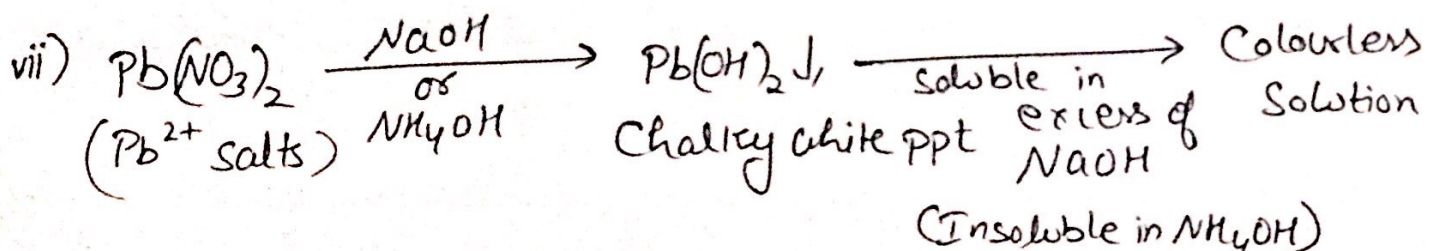
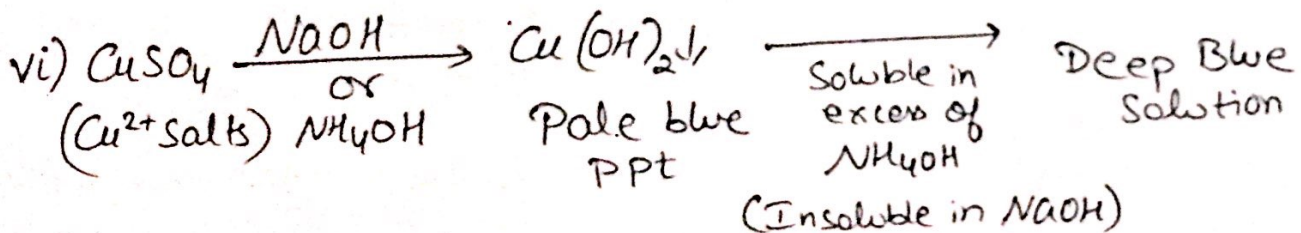
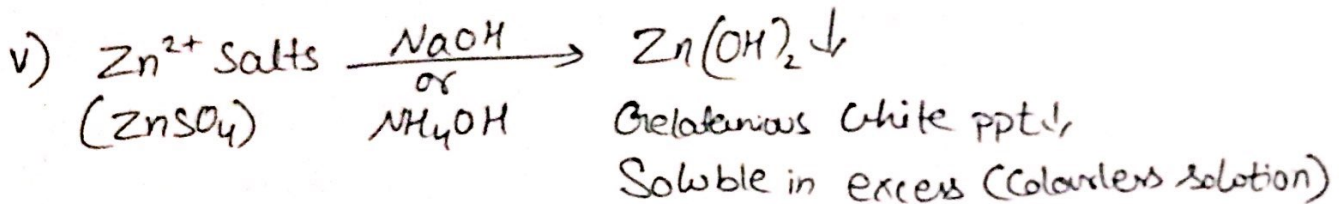
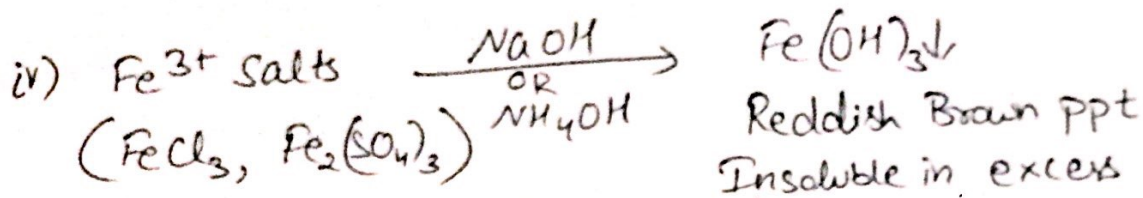
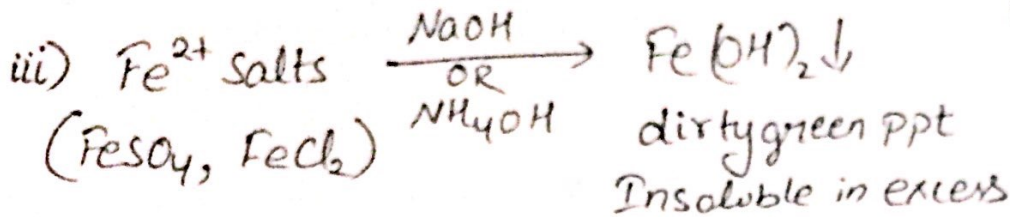
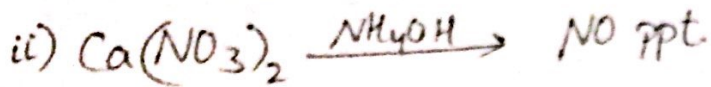
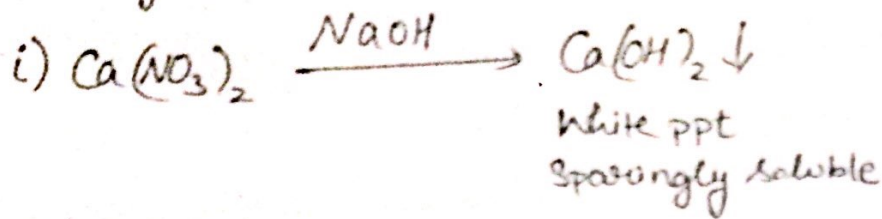


Analytical Chemistry

① Analysis with NaOH & NH₄OH



Remember:

Soluble in NaOH → Zn, Pb

Soluble in NH₄OH → Zn, Cu

To Learn
 this, watch
 video

Oxides of Zn, Pb and Al are Amphoteric. Explain

Acid & Base

Ans $ZnO, Zn(OH)_2, Al_2O_3, Al(OH)_3, PbO, Pb(OH)_2$

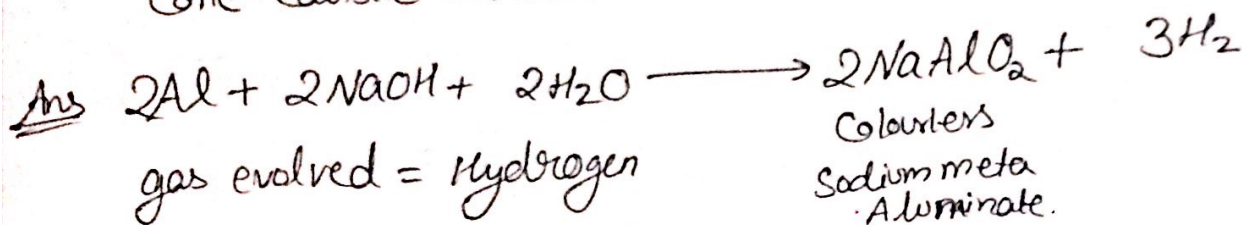
• reacts with Acids and behave as Base

• reacts with alkalis ($NaOH, KOH$) and then behave as Acid.

This property is called Amphoteric.

NOTE: Al, Pb, Zn in metallic form also react with alkalis $NaOH$ and KOH to give H_2 . So $NaOH$ and KOH behaves as Acid.

③ Name the gas evolved on reaction of Aluminium with boiling conc caustic alkali solution. Write the reaction.



④ Differentiate between

a) Pb^{2+} salt and Zn^{2+} salt (using excess Ammonium hydroxide)

Ans: Pb^{2+} is insoluble in excess NH_4OH
 Zn^{2+} is soluble in excess NH_4OH giving clear solution

b) Iron(II) sulphate and Iron(III) sulphate. (using ammonium hydroxide)

Ans: Iron(II) will give dirty green ppt

Iron(III) will give reddish brown ppt

NOTE: In exams, write difference in tabular fashion.

⑤ What happens when $NaOH/KOH$ reacts with ammonium salts?

