

**CLASS 10 CHEMISTRY**  
**ANALYTICAL CHEMISTRY**

1. Write balanced equations for the following :
  - a) Reaction of sodium hydroxide solution with Iron (III) chloride solution.
  - b) Copper sulphate solution with ammonium hydroxide solution first little and then excess
  - c) Reaction of aluminum oxide with hot concentrated caustic soda
  - d) Reaction of zinc with hot conc.caustic potash
  - e) Lead nitrate solution reacts with sodium hydroxide first little and then in excess.
2. What would you observe when sodium hydroxide is added to the following first little and then in excess :
  - $\text{FeCl}_3$
  - $\text{Pb}(\text{NO}_3)_2$
  - $\text{Ca}(\text{NO}_3)_2$
3. Name the probable cation present on the following :
  - a) White precipitate insoluble in ammonium hydroxide solution but soluble in sodium hydroxide solution.
  - b) Deep blue coloured solution with excess of ammonium hydroxide solution.
  - c) Ammonium hydroxide solution is added in excess to a salt solution, it does not form any precipitate but with sodium hydroxide white precipitate is formed.