STUDY OF COMPOUNDS & ANALYTICAL CHEMISTRY WORKSHEET - 1

1. State the colours of the following salts:

a. $FeSO_4$ b. $CuSO_4$ c. $Fe_2(SO_4)_3$ d. $MgCO_3$ e. $CaCl_2$

2. Name two cations which are formed by non-metals.

3. Write the colors of the solutions containing the following cations: Fe^{+2}, Fe^{+3}, Cu^{+2}.

4. Which reagent can be used to distinguish a solution containing a lead salt from a solution containing a zinc salt?

5. Why does the blue precipitate of $Cu(OH)_2$ turn black on heating?

6. Which of the following ions in their solutions do not produce any precipitate with sodium hydroxide solution?

7. Sodium hydroxide solution is added to solution 'A'. A white precipitate is formed which is insoluble in excess of NaOH solution. What is the metal ion present in solution 'A'?

8. State what you observe when silver nitrate solution is added to dilute hydrochloric acid?

9. Write balanced chemical equation for the reaction of zinc and dilute hydrochloric acid?

10. What must be added to sodium chloride to obtain hydrogen chloride? Write the equation for the reaction.

11. What would you see when hydrogen chloride mixes with ammonia?

12. Hydrogen chloride dissolves in water forming an acidic solution.

13. Write balanced equations for each of the reactions given below:

i. Action of heat on sodium nitrate and on copper nitrate.

ii. Nitrogen monoxide and oxygen.

14. Write the equation for the following reaction: Between copper and concentrated nitric acid.

15. Write the equation for the reaction of hydrochloric acid with each of the following:

i. Lead nitrate solution

ii. Manganese

iii. Oxide.