Ch. 04 – CHEMICAL REACTIONS & EQUATIONS | **CLASS –X TIME-1 HR M.M.-30**

1) What happens chemically when quicklime is added to water filled in a bucket? [1]

2) Balance the given chemical equation:

$$FeSO_4(s) \xrightarrow{Heat} Fe_2O_3(s) + SO_2(g) + SO_3$$ [1]

3) How will you define a Oxidising agent? [1]

4) (a) A solution of substance 'X' is used for white washing. What is the substanceX'? State the chemical reaction of 'X' with water.

(b) Why does the colour of copper sulphate solution change when an iron nail isdipped in it? [2]

5) Name the reducing agent in the following reaction: $3MnO_2 + 4Al \rightarrow 3Mn + 2Al_2O_3$

State which is more reactive, Mn or Al and why? [2]

6) Write balanced equations for the following, mentioning the type of reaction involved.

a. Aluminium + Bromine → Aluminium bromide

b. Calcium carbonate → Calcium oxide + Carbon dioxide

c. Silver chloride → Silver + Chlorine [3]

7) Name the type of chemical reaction represent by the following equation:

a. $CaO + H_2O \rightarrow Ca(OH)_2$

b. $3BaCl_2 + Al_2(SO_4)_3 \rightarrow 3BaSO_4 + 2AlCl_3$

c. $2FeSO_4 \xrightarrow{Heat} Fe_2O_3 + SO_2 + SO_3$ [3]

8) What is meant by

a. Precipitation reaction

b. Oxidation reaction. Write balanced chemical equations for an example of each.

c. Exothermic reaction, [3]

9) (a) Define a balanced chemical equation. Why should an equation be balanced?

(b) Write the balanced chemical equation for the following reaction:

(i) Phosphorus burns in presence of chlorine to form phosphorus pentachloride.

(ii) Burning of natural gas. (iii) The process of respiration. [5]

10) Describe an activity to demonstrate the change that takes place when white silver chloride is kept in sunlight. State the type of chemical reaction which takes place. [5]