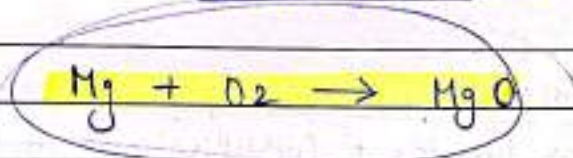


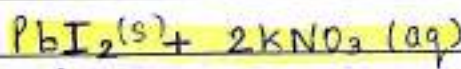
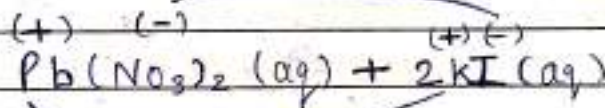
All activities and chemical
Reactions

→ Chapter 1 → Chemical Reactions and Equations:-

{Activity 1}:- We took a Magnesium Ribbon which is grey in colour. When we burn it, it burns with a white dazzling flame and converted in white powder. It happens because burning and combustion happens in presence of oxygen. Hence, Magnesium reacts with oxygen and form Magnesium oxide (white). We can observe that here Combination Reaction and oxidation take place.



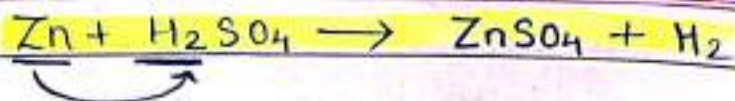
{Activity 2}:- We have a solution of lead nitrate and we add a solution of potassium iodide in it. Hence, we can observe a mutual exchange between ions therefore, here a Double displacement takes place. At end we can see that a precipitate of yellow colour is formed. Hence we can say it as Precipitation Reaction.



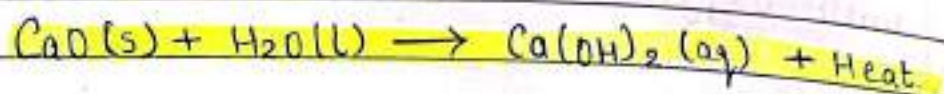
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{Precipitate formed of yellow colour}

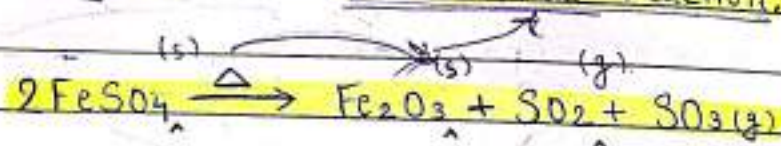
{Activity 3}:- We have some zinc granules in a conical flask and add some dilute sulphuric acid. As we know that zinc is more reactive than hydrogen therefore it displaces hydrogen, hence we observed that it is a displacement reaction. Also, if we touch the flask we feel hot because during reaction the heat energy has released, therefore it is also an exothermic reaction.



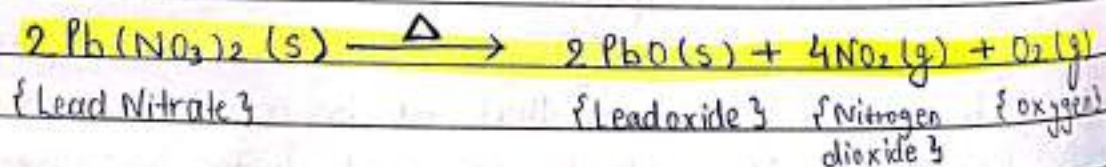
{Activity 4}:- If we took a beaker and put some water and a small amount of Calcium oxide {Quicklime}. We observed that Calcium oxide reacts with water and form Calcium hydroxide {Slaked lime} and also release some heat energy. Hence, this reaction is combination reaction and exothermic reaction.



{Activity 5}:- We have crystals of ferrous sulphate which have fixed number of water molecules (Water of Crystallisation) and its colour is pale green. If we heat the ferrous sulphate it loses its water molecules and converted into white colour and decomposes into ferric oxide which is reddish brown in colour and also releases sulphur dioxide and sulphur trioxide. Hence, it is a decomposition reaction and endothermic reaction.



{Activity 6}:- We have powder of lead nitrate whose colour is white. If we heat it, it decomposes and forms lead oxide of yellow colour and release nitrogen dioxide and oxygen gases. We will observe brown fumes releasing from test tube it is because of nitrogen dioxide. Hence, it is decomposition and endothermic reactions.



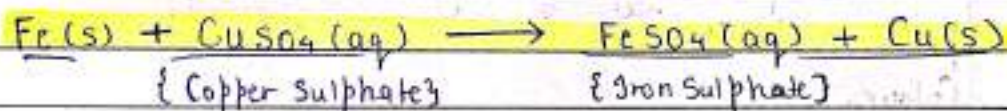
{Activity 7}: - We have a plastic Mug filled with water we have anode (+) and cathode (-) at the base of the Mug and we also have a 6V battery. Hence, we pass electricity through water therefore it decomposes into hydrogen and oxygen which are mixed in the ratio of 2:1. We can also add some drops of dilute sulphuric acid to increase conductivity of electricity. Hence, we observe decomposition and Endothermic Reactions:



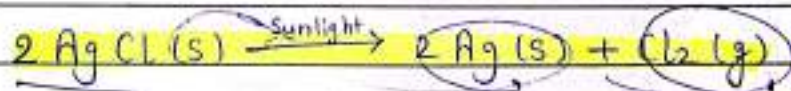
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{ Hydrogen — Cathode } → 2 Hydrogen
{ Oxygen — Anode } → 1 Oxygen

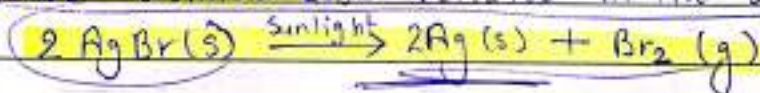
{Activity 8}: - We have a blue solution of Copper Sulphate and if we dip an iron nail inside it we will observe after some time that the blue solution becomes pale green and fude and a brown coating on iron nail. It happens because iron is more reactive than copper. Hence, it is a displacement reaction.



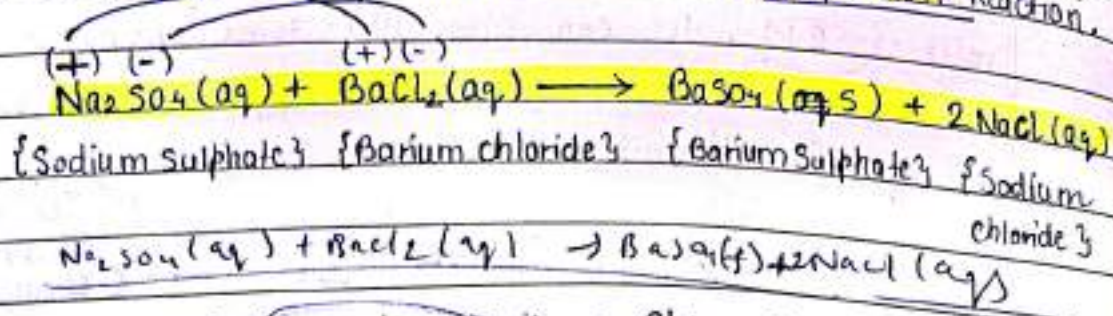
{Activity 9}: - We have 2g of silver chloride in a china dish and put it into sunlight. The colour of silver chloride is white but now it turns into grey because in the presence of sunlight silver chloride decomposes into silver and chloride. Hence, it is a decomposition reaction and endothermic reaction. It is used for black and white photography.



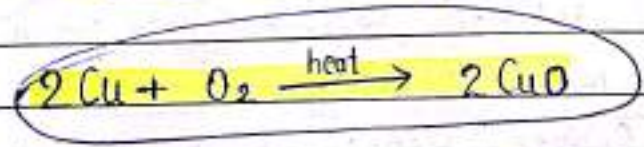
Note: Silver bromide also behaves in the same way.



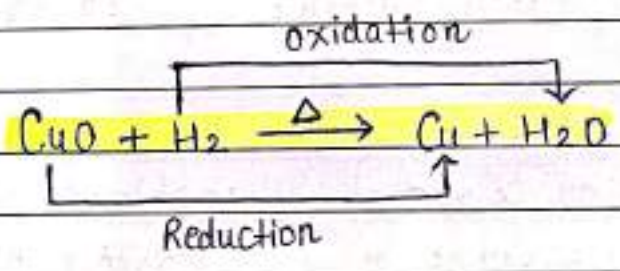
{Activity 10}: - If we take about 3 ml of sodium sulphate solution and add barium chloride solution into it we can see a precipitate of white colour is formed. It happens due to the mutual exchange of ions therefore it is a double displacement reaction or precipitation reaction.



{Activity 11}: - Take about 1g of copper powder in a China Dish and heat it burner. After some time you will observe that the brown copper powder converts into black because the burning happens in the presence of oxygen. Therefore, here oxidation is happening also combination and endothermic reaction is happening.

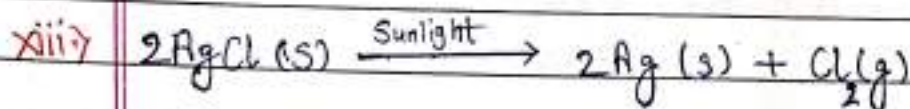
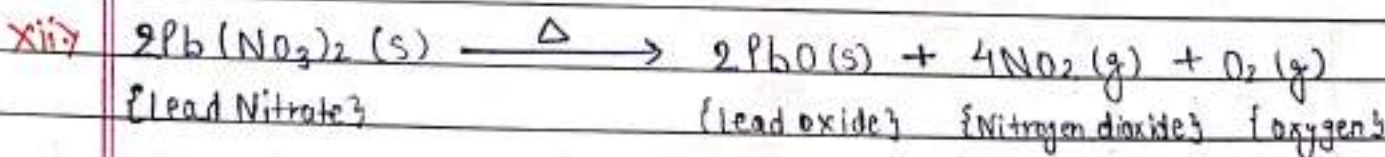
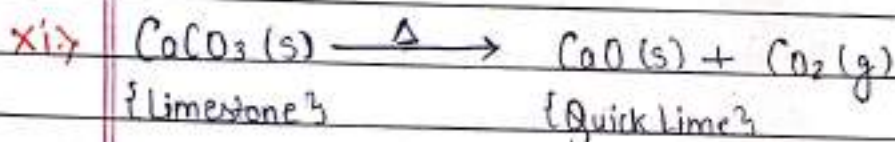
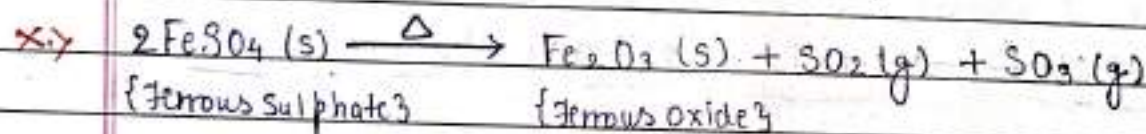
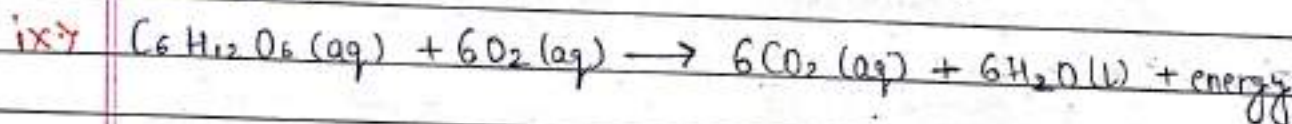
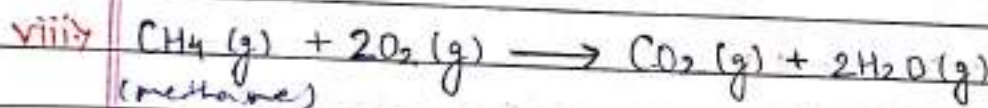
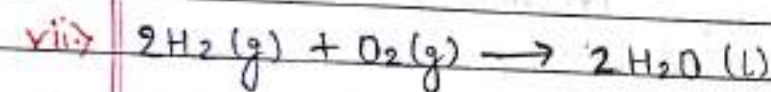
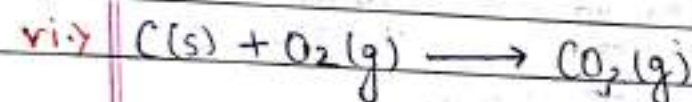
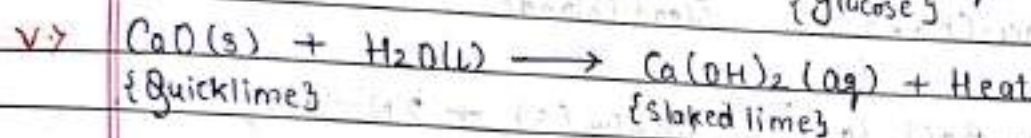
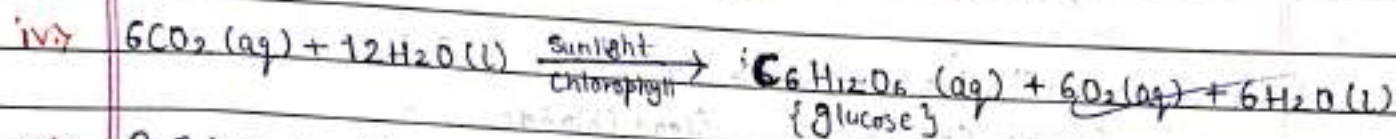
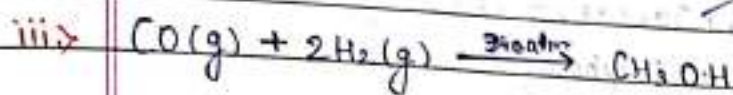
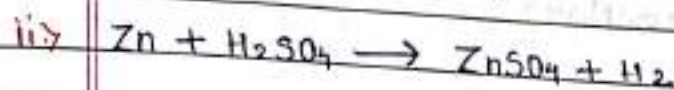
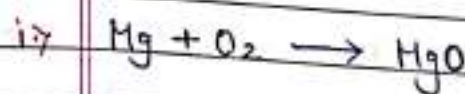


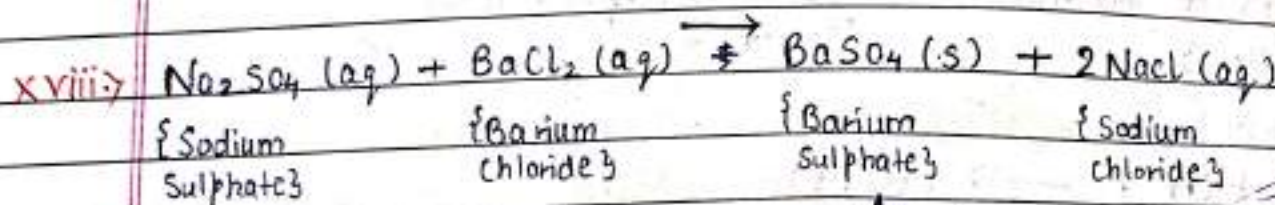
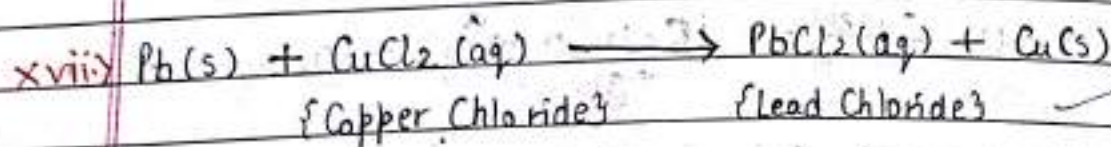
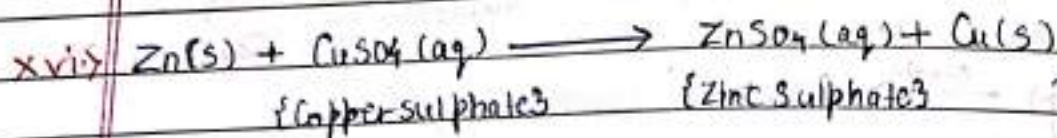
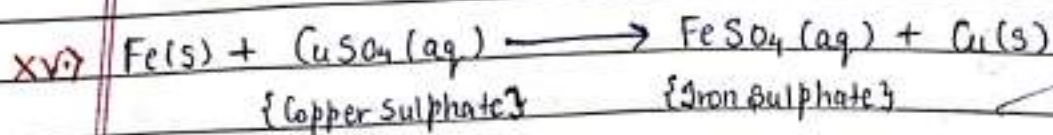
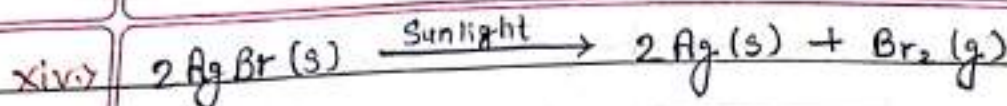
Note: If we pass hydrogen gas from copper oxide the reduction happens and the colour of black copper oxide again converts into brown colour.



oxidizing agent :- Cu } important
Reducing Agent :- H₂

Lists of Chemical Reactions — Ch-1





↓
Precipitate

