Summer holiday H.W (Chem.) 2022-2023
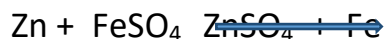
Class – X

Q1.) Name the substance oxidised, reduced, oxidizing agent and reducing agent in the following reaction.

$$Zn + FeSO_4 \rightarrow ZnSO_4 + Fe$$

Q2.) Why is hydrogen gas collected over water?

Q3.) In what ratio are the gases hydrogen and oxygen collected when water is subjected to electrolysis?

Q4.) What is rust?

Q.5) Identify the most reactive and least reactive metal; Al, K, Ca, Au.

Q6.) Identify the compound which is oxidised in the following reaction.

$$H_2S + Br_2 \longrightarrow 2HBr + S$$

Q7.) Can the term rusting be used for all metals?

Q8.) What is the role of oxidising agent in a reaction?

Q9.) What happens chemically when quick lime is added to water?

Q10.) What happens when - CO_2 is bubbled through lime water

    i)   In small amount
    ii)   In excess?

Q11.) What is an oxidation reaction?

Q12.) Identify the types of reaction.

$$Fe + CuSO_4 \longrightarrow FeSO_4 + Cu$$

Q13.) Balance the following chemical equation.

$$Pb(NO_3)_2 \xrightarrow{\triangle} PbO + NO_2 + O_2$$

Q14.) A. What is observed when a solution of potassium iodide is added to a solution of lead nitrate taken in a test tube?

B. What type of reaction is this?

C. Write a balanced equation to represent the above reaction.

Q15.) What change in colour is observed when white silver chloride is left exposed to sunlight? State the type of chemical reaction in this change.

Q16.) What is a redox reaction? When a magnesium ribbon burns in air with a dazzling flames and forms a white ash is magnesium oxidised or reduced? Why?

Q17.) Can rusting of iron take place in distilled water?

Q18.) Balance the chemical equation

$FeSO_4 \xrightarrow{} Fe_2O_3 + SO_2 + SO_3$

Q19.) Why do we store silver chloride in a dark coloured bottle?

Project

Topic:- To study photo Decomposition of AgCl and AgBr.

Or ,

To study the reaction with $Pb(NO_3)_2$ solution and KI solution.

Or ,

Rancidity.

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