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**WORKSHEET No.2**

**GRADE: X SUBJECT: CHEMISTRY NAME:**

**TOPIC: CHEMICAL REACTIOS AND EQUATIONS DATE:**

**I. ANSWER THE FOLLOWING**

1. A yellowish colored compound ‘X’ is photosensitive material. On exposure to sunlight, it gives grayish substance ‘Y ‘and brown fumes of a gas ‘Z’. Identify X, Y and Z. How will you obtain X from the nitrate salt of Y?
2. What happen when a zinc strip is dipped into copper sulphate solution? Explain with a balanced equation.
3. What happens when silver nitrate solution is added to sodium chloride solution? Give a balanced equation.
4. When the solution of a substance A is added to the solution of potassium iodide, then a yellow solid separates out from the solution.
5. Identify A b. Name the yellow solid substance. c. Mention the characteristics of this chemical reaction. d. Write the balanced chemical equation for the reaction along with the physical states.
6. a. “Respiration is an exothermic process. “Comment.
7. Why photosynthesis is considered as an endothermic reaction? Explain.
8. What do you mean by electrolysis of acidulated water? What are the products obtained after the electrolysis of water?
9. Why are food items preserved by flushing with nitrogen?
10. Why are gold, silver and platinum considered as noble metals?
11. Why should a magnesium ribbon be cleaned before burning in air?
12. All decomposition reactions are endothermic reactions. Give reason.
13. What is Galvanization?
14. What happens when basic oxides like Na2O or K2O are dissolved in water? Write balanced chemical equation.
15. Physical changes can be reversed but why can’t chemical changes be reversed?
16. Marble and bronze statues often get corroded when kept open for a long time. Give reasons to support this statement.
17. A shiny brown colored element ‘X’ on heating in air becomes black in color. Name the element ‘X’ and the black colored compound formed.

**II. Write the balanced chemical equation and identify the type of reaction in each of the following.**

1. Potassium bromide + Barium Iodide -> Potassium iodide
2. Zinc carbonate ->Zinc oxide +Carbon dioxide
3. Hydrogen + Chlorine -> Hydrogen chloride
4. Barium chloride + Potassium sulphate -> Barium sulphate +Potassium chloride
5. Nitrogen + Hydrogen-> ammonia

**III. Identify the substances oxidized and the substances reduced in the following reaction.**

1. PbO+ C -> 2Pb +CO2
2. MnO2 +4HCl -> MnCl2 + 2H2O + Cl2
3. H2S + Cl2 ->2 HCl + S
4. 2Mg +O2 -> 2MgO
5. 2Na + Cl2 -> 2NaCl

**IV. 2g of ferrous sulphate crystals are heated in a boiling tube.**

1. State the color of ferrous sulphate crystals both before heating and after heating.
2. Name the gases produced during heating.
3. Write the chemical equation for the reaction.

**V. Identify the type of each of the following reactions:**

a. A reaction in which a single product is formed from two or more reactants.

b. The reaction mixture becomes warm.

c. An insoluble substance is formed

e. Salt and water is formed from acid and base.

VI. Suggest five methods to prevent corrosion of metals.

VII. Suggest five methods to prevent rancidity of food.

VIII. Define the following:

a. Chemical equation b. Combination reaction c. Decomposition reaction

d. Displacement reaction e. Double displacement reaction

f. Oxidation reaction g. Reduction reaction h. Redox reaction

i. Exothermic reaction j. Endothermic reaction k. photochemical reaction