

DWARKA INTERNATIONAL SCHOOL (Session 2022-2023)

Class – X

Subject – Science (Chemistry)

Holiday Homework

Part A

1. Why does the color of copper sulphate solution change when an iron nail is dipped in it?
2. Which products will be obtained when lead nitrate is heated simply? Write balanced chemical equation for the reaction.
3. In electrolysis of water, why is the volume of gas collected over one electrode double that of gas collected over the other electrode.
4. What does one mean by exothermic and endothermic reactions? Give examples.
5. Translate the following statements into chemical equations and then balance them.
 - (a) Hydrogen gas combines with nitrogen to form ammonia.
 - (b) Hydrogen sulphide gas burns in air to give water and Sulphur dioxide.
 - (c) Barium chloride reacts with aluminum sulphate to give aluminum chloride and a precipitate of barium sulphate.
 - (d) Potassium metal reacts with water to give potassium hydroxide and hydrogen gas.
6. What is brine?
7. What is a neutralization reaction? Give an examples.
8. What will be the action of the following substances on litmus paper?
Dry HCl gas, Moistened NH₃ gas, Lemon juice, carbonated soft drink, Curd, Soap solution.
9. What happens when nitric acid is added to egg shell? Write suitable chemical reaction.
10. What is water of crystallization? Give two examples.

Part B

Topics for Research Work

Formation and utility of acids, bases and salts in day to day life