**SYLLABUS (2018-2019)**

**Class X (Chemistry)**

**Chapter 1: Chemical Reaction and Equation**

Introduction, Balanced chemical equation, types of chemical reaction, combination, decomposition, displacement, double displacement, precipitation, oxidation and reduction.

**Chapter 2: Acids, Bases and Salts**

Introduction, general properties, examples and uses, Arrhenius Concept, pH scale, Importance of pH in everyday life, Preparation and uses of Sodium Hydroxide, Bleaching powder, baking soda, washing soda and plaster of paris.

**Chapter 3: Metals and Non-metals**

Introduction, properties of metals and non-metals, reactivity series, chemical bond, metallurgy, corrosion and its prevention.

**Chapter 4: Carbon compounds**

Covalent and versatile nature of carbon, homologous series, functional groups, nomenclature, hydrocarbons, chemical properties of carbon compounds, ethanol and ethanoic acid, soaps and detergents.

**Chapter 5: Periodic Classification of elements**

Introduction, need for classification, early attempts of classification, modern periodic table, gradation in properties (valency, metallic and non-metallic properties, atomic radius, ionisation enthalpy).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Chapter 1** | **Chapter 2** | **Chapter 3** | **Chapter 4** | **Chapter 5** |
| **P.T. –I**  **(July 2018)** |  |  |  |  |  |
| **P.T. – II**  **(September 2018)** |  |  |  |  |  |
| **P.T. –III**  **(January 2019)** |  |  |  |  |  |
| **Pre-Board Examination**  **(February 2019)** |  |  |  |  |  |
| **Board Examination**  **(March 2019)** |  |  |  |  |  |

**PRACTICALS:**

1. Finding the pH of the following samples by using pH paper/universal indicator:
2. Dilute Hydrochloric acid
3. Dilute NaOH solution.
4. Dilute Ethanoic acid solution
5. Lemon juice
6. Water
7. Dilute H2CO3 solution

Stu dying the properties of acids and bases (HCl and NaOH) by their reaction with:

1. Litmus solution (Blue/Red)
2. Zinc metal
3. Solid Sodium carbonate
4. Performing and observing the following reactions and classifying them into:
5. Combination reaction
6. Decomposition reaction
7. Displacement reaction
8. Double displacement reaction
9. Action of water on quick lime.
10. Action of heat on ferrous sulphate crystals.
11. Iron nails kept in copper sulphate solution.
12. Reaction between sodium sulphate and barium chloride solutions.
13. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:
14. ZnSO4 (aq)
15. FeSO4 (aq)
16. CuSO4 (aq)
17. Al2(SO4)3 (aq)

Arranging Zn, Fe, Cu, and Al (metals) in the decreasing order of reactivity based on the above results.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***