Class – XI
DELETED SYLLABUS
(For the Session of 2020-21 Only)
CHEMISTRY
(THEORY)

Unit I: Some Basic Concepts of Chemistry

Natureof matter, laws of chemical combination. Dalton's atomic theory: concept of elements, atoms and molecules.

Unit II: Structure of Atom

Discovery of electron, proton and neutron; atomic number, isotopes and isobars. Thomson's model and its limitations, Rutherford's model and its limitations.

Unit III: Classification of Elements and Periodicity in Properties

Significance of classification, brief history of the development of periodic table.

Unit V: States of Matter: Gases and Liquids

Liquefaction of gases, critical temperature. Liquid State - Vapour pressure, viscosity and surface tension (qualitative idea only, no mathematical derivations).

Unit VI: Thermodynamics

Heat capacity and specific heat, criteria for equilibrium.

Unit VII: Equilibrium

Hydrolysis of salts (elementary idea).

Unit VIII: Redox Reactions

Applications of redox reactions.

Unit X: s- Block Elements (Alkali and Alkaline earth metals)

Preparation and properties of some important compounds:

Sodium carbonate, sodium chloride, sodium hydroxide and sodium hydrogen carbonate, biological importance of sodium and potassium. CaO, $CaCO_3$ and industrial use of lime and limestone, biological importance of Mg and Ca

Unit XI: Some p-Block Elements

General Introduction to p-Block Elements

Group 13 elements: Some important compounds: borax, boric acids, boron hydrides. Aluminium: uses, reactions with acids and alkalies.

Group 14 elements: Carbon; uses of some important compounds: oxides.

Important compounds of silicon and a few uses: silicon tetrachloride, silicones, silicates and zeolites.

Unit XII: Organic Chemistry - Some Basic Principles and Techniques

Methods of qualitative and quantitative analysis.

Unit XIII: Hydrocarbons

Classification of hydrocarbons

Free radical mechanism of halogenation, combustion and pyrolysis.

Unit XIV: Environmental Chemistry

Environmental pollution - air, water and soil pollution, chemical reactions in atmosphere, smog, major atmospheric pollutants; acid rain, ozone and its reactions, effects of depletion of ozone layer, greenhouse effect and global warming - pollution due to industrial wastes; green chemistry as an alternative tool for reducing pollution, strategy for control of environmental pollution.