

## **CY-114 ORGANIC CHEMISTRY I**

**Basic Concepts:** Bonding, Reactivity of organic compounds, Oxidation states of carbon, Structure and stability of reactive intermediates, Electrophiles and Nucleophiles, Types of reactions, Factors effecting reactions (reaction mechanism)

**Isomerism:** Structural, Stereo, Geometrical and Optical isomerism

**Chemistry Of Alkanes And Cycloalkanes:** Nomenclature, Natural occurrence and Physical properties, Preparation and Reactions of alkane and cycloalkane.

**Chemistry of Alkenes And Alkyne:** Nomenclature, Natural occurrence, Physical properties, acidity, Preparations and reactions of alkenes and alkynes.

**Aromatic Hydrocarbons and Heterocyclic Compounds:** Nomenclature, Aromaticity, Preparation and Reactions of aromatic compounds, Electrophilic substitution reactions of benzene, Heterocyclic aromatic compounds (5 and 6 membered), Importance in pharmaceutical industry.

**Alkyl Halides:** Nomenclature, Classification and physical properties, Preparation of alkyl halides.

### **Important Industrial Organic Chemicals:**

Large scale production and derived products of the following important industrial chemicals: Ethene, Butanes, Butadiene, BTX Chemistry (Benzene, Toluene, Xylene).