Lesson Plan

B. Sc. IIIrd Year (VIth Semester)

Paper-XX (CH-306) Organic Chemistry

Teacher name:

April 2021

|  |
| --- |
| Organic Synthesis via Enolates -hydrogens, alkylation of diethyl malonate and ethylαAcidity of acetoacetate. Synthesis of ethyl acetoacetate: the Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate. Heterocyclic Compounds Introduction: Molecular orbital picture and aromatic characteristics of pyrrole, furan, thiophene and pyridine. Methods of synthesis and chemical reactions with particular emphasis on the mechanism of electrophilic substitution. Mechanism of nucleophilic substitution reactions in pyridine derivatives. |

May 2021

|  |
| --- |
| Comparison of basicity of pyridine, piperidine and pyrrole. Introduction to condensed five and six- membered heterocycles. Prepration and reactions of indole, quinoline and isoquinoline with special reference to Fisher indole synthesis, Skraup synthesis and Bischler-Napieralski synthesis. Mechanism of electrophilic substitution reactions of, quinoline and isoquinoline. Section–B (22 Periods) Amino Acids, Peptides& Proteins Classification, of amino acids. Acid-base behavior, isoelectric -amino acids.α point and electrophoresis. Preparation of Structure and nomenclature of peptides and proteins. |

June 2021

|  |
| --- |
| Classification of proteins. Peptide structure determination, end group analysis, selective hydrolysis of peptides. Classical peptide synthesis, solid– phase peptide synthesis. Structures of peptides and proteins: Primary & Secondary structure. Synthetic Poly mers Addition or chain-growth polymerization. |

July 2021

|  |
| --- |
| Free radical vinyl polymerization, ionic vinyl polymerization, Ziegler-Natta polymerization and vinyl polymers. Condensation or step growth polymerization. Polyesters, polyamides, phenol formaldehyde resins. Natural and synthetic rubbers. |