

B.Sc. III (Organic Chemistry) VI sem	
1 week Feb	Organic Synthesis via Enolates -hydrogens, alkylation of diethyl malonate and ethyl α Acidity of acetoacetate. Synthesis of ethyl acetoacetate: the Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate.
2 week Feb	Heterocyclic Compounds Introduction: Molecular orbital picture and aromatic characteristics of pyrrole, furan, thiophene and pyridine.
3 week Feb	Methods of synthesis and chemical reactions with particular emphasis on the mechanism of electrophilic substitution.
4 week Feb	Mechanism of nucleophilic substitution reactions in pyridine derivatives. Comparison of basicity of pyridine, piperidine and pyrrole.
1 week March	Introduction to condensed five and six- membered heterocycles. Preparation and reactions of indole, quinoline and isoquinoline with special reference to Fisher indole synthesis,
2 week March	Skraup synthesis and Bischler-Napieralski synthesis. Mechanism of electrophilic substitution reactions of, quinoline and isoquinoline.
3 week March	Amino Acids, Peptides & Proteins Classification, of amino acids. Acid-base behavior, isoelectric -amino acids. α point and electrophoresis.
4 week March	Preparation of Structure and nomenclature of peptides and proteins. Classification of proteins.
1 week April	Classical peptide synthesis, solid- phase peptide synthesis. Structures of peptides and proteins: Primary & Secondary structure.
2 week April	Peptide structure determination, end group analysis, selective hydrolysis of peptides.
3 week April	Synthetic Poly mers Addition or chain-growth polymerization.
4 week April	Free radical vinyl polymerization, ionic vinyl polymerization, Ziegler-Natta polymerization and vinyl polymers.
1 week May	Condensation or step growth polymerization. Polyesters,
2 week May	polyamides, phenol formaldehyde resins. Natural and synthetic rubbers.