

ACADEMIC PLANNER & UNITIZATION OF SYLLABUS

Department: Chemistry

Core T4 - Organic Chemistry II

SEM-II

Subject Teacher: Dr. Mridula Acharyya

AY:2023-24

SYLLABUS UNITIZATION:

MONT H	WEE K	TOPICS to be TAUGHT
March	2	Concept of prostereoisomerism.
March	3	prostereogenic centre; concept of (pro)n-chirality: topicity
March	4	Concept of prostereoisomerism: prostereogenic centre; concept of (pro)n-chirality: topicity of ligands and faces (elementary idea);
April	1	pro-R/pro-S, pro-E/pro-Z and Re/Si descriptors; pro-r and pro-s descriptors of ligands on propseudoasymmetric centre.
April	2	Conformation: conformational nomenclature: eclipsed, staggered
April	3	Conformation: conformational nomenclature: eclipsed, staggered, gauche, syn and anti; dihedral angle, torsion angle.
April	4	Klyne-Prelog terminology; P/M descriptors; energy barrier of rotation, concept of torsional and steric strains
May	1	CLASS TEST
May	2	Relative stability of conformers on the basis of steric effect, dipole-dipole interaction and H-bonding
May	3	Butane gauche interaction
May	4	2-methylbutane and 2,3-dimethylbutane; haloalkane, 1,2-dihaloalkanes and 1,2-diols (up to four carbons); 1,2-halohydrin; conformation of conjugated systems (s-cis and s-trans).
June	1	CLASS TEST
June	2	Tautomerism: prototropy (keto-enol, nitro - aci-nitro, nitroso-oximino, diazo-amino and enamine-imine systems); valence tautomerism and ring-chain

		tautomerism
June	3	Composition of the equilibrium in different systems (simple carbonyl; 1,2- and 1,3-dicarbonyl systems, phenols and related systems), factors affecting keto-enol tautomerism; application of thermodynamic principles in tautomeric equilibria
June	4	Revision

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