

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Organic Chemistry)
Semester: IV
Syllabus with Effect from: June - 2013

Paper Code: PS04CORC03	Total Credit: 4
Title Of Paper: Stereochemistry of Organic Compounds	

Unit	Description in detail	Weightage (%)
I	Stereochemistry: Asymmetric synthesis, stereoselective reactions Racemisation and methods of resolution.	25%
II	Conformational Analysis of: Acyclic, cyclic, fused, and bridged cyclic ring systems. Dynamic stereochemistry: Conformation and reactivity.	25%
III	Pericyclic Reactions: Electrocyclic, cycloadditions, sigmatropic, group transfer, cheletropic, and dyotropic reactions.	25%
IV	Chiroptical Properties Of Organic Compounds: ORD, CD, and rules for optical properties; chemical and stereochemical aspects' of DNAs, enzymes, crown ethers and cyclodextrins.	25%

Basic Text & Reference Books:-

- Stereochemistry: Conformation and Mechanism, By P.S. Kalsi, 6th edition, New Age International (P) Ltd., Publishers (2005).
- Stereochemistry and Mechanism through solved problems, By P.S. Kalsi, Wiley Eastern Ltd. (1994).
- Stereochemistry of organic compounds, By D. Nasipuri, 2nd Edition, New Age International (P) Ltd., Publishers (1994).
- Stereochemistry of Carbon Compounds, By E.L. Eliel, Tata McGraw-Hill Pub. Co. Ltd. (1962).
- Organic Chemistry, By J. Clayden, N. Greeves, S. Warren and P. Wothers, Oxford Uni. Press, N.Y. (2001)

