

ORGANIC CHEMISTRY (BS-ADP 8th Semester)

Module Code:	Chem-459
Module title:	Organic Synthesis
Name of Scheme:	BS-ADP 8th Semester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Compulsory
Module Rating:	2 Credits

OBJECTIVES:

To acquire knowledge about the usefulness of synthetic organic chemistry involving the application of new reagents. To develop basic understanding about asymmetric synthesis, application of protecting groups in organic synthesis and disconnection approach (Retrosynthesis).

SYLLABUS OUTLINES:

1. Organic Synthesis

An outline of the recent developments in organic syntheses involving new reagents, reaction conditions and methods; Asymmetric synthesis. Introduction to protective groups, protection of hydroxyl, amino, carbonyl and carboxylic acid groups, and their deprotection, synthetic applications of these protective groups in total synthesis of organic molecules. Introduction to disconnection approach with examples.

RECOMMENDED BOOKS:

1. Organic Chemistry, Vol. I (6th Ed.) and II (5th Ed.) by I.L. Finar, Pearson Education (Singapore) Pvt. Ltd. 2008.
2. March's Advance Organic Chemistry: Reactions, Mechanisms and Structures. (6th Ed.) by M.B. Smith and J. March, Wiley, 2007.
3. Organic Chemistry, (5th Ed.) by S.H. Pine, McGraw Hill, New York, USA, 1987.
4. Organic Chemistry, (6th Ed.) by Francis A. Carey, McGraw Hill, USA, 2005.
5. Organic Chemistry, (6th Ed.) by R.T. Morrison, R.N. Boyd and R.K. Boyd, Benjamin Cummings, 1992.
6. Organic Chemistry, by Jonathan Clayden, Nick Greeves and Stuart Warren, Oxford University Press, 2000.
7. Organic Synthesis, The disconnection approach, Stuart Warren, John Willey and Sons 1993; and work book be same 1994.
8. Designing Organic Synthesis, A Programmed Introduction to synthon approach, S. Warren, John Willey and Son, 1992.
9. Guide book to Organic Syntheses, R. K. Mackie, D. M. Smith, Longman Group Limited, 1982.