

UNIVERSITY OF MADRAS
B.Sc. DEGREE COURSE IN CHEMISTRY
SYLLABUS WITH EFFECT FROM 2020-2021

BCY-DSC14

CORE-XIV: MAJOR PRACTICAL - IV

Learning to identify functional groups and elements present in organic compounds; Preparation of some simple organic compounds

Semester	Subject Title	Total Hours	Credit
V & VI	Organic Analysis and Preparation	90	4

ORGANIC ANALYSIS

Analysis of simple organic compounds (a) characterization functional groups
(b) confirmation by preparation of solids derivatives / characteristics colour reaction.

- Note : 1. Mono - functional compounds are given for analysis. In case of bi-functional compounds, students are required to report any one of the functional groups.
2. Each student is expected to do the analysis of at least 10 different organic substances. Recommended to adopt micro scale technique of organic analysis

ORGANIC PREPARATIONS

Preparation of Organic compounds involving the following chemical conversions

1. Oxidation of benzaldehyde
2. Reduction of nitrobenzene
3. Esterification of salicylic acid
4. Acetylation of aniline
5. Hydrolysis of methyl salicylate
6. Nitration of phenol
7. Bromination of acetanilide

Books for Reference

1. Venkateswaran V, Veeraswamy R and Kulandaivelu AR, Basic Principles of Practical Chemistry, 2nd ed., New Delhi, Sultan Chand & Sons (1997).
2. Furniss, B.S., et al. Vogel's Textbook of Practical Organic Chemistry, 5th ed., Prentice Hall, 1989.
3. College Practical Chemistry, V K Ahluwalia; Sunita Dhingra; Adarsh Gulati, Universities Press Private Limited, Chennai, 2005
4. Comprehensive Practical Organic Chemistry: Preparations and Quantitative Analysis, V K Ahluwalia; Renu Aggarwal, Universities Press Private Limited, Chennai, 2004