

PHYSICAL AND ORGANIC CHEMISTRY-II
PRACTICAL

Course Code: U20/CHE/DSC/301/P
Course: DSC-3
No. of Credits: 1

Max. Marks: 50
Max. Hours: 30
Hours per week: 3

COURSE OBJECTIVE

- To prepare simple organic compounds and systematically analyze functional groups based on their nature and chemical reactivity.

COURSE OUTCOMES

CO1: Utilize the knowledge of organic reaction mechanisms in their preparations.

CO2: Categorize functional groups present in organic compounds using systematic qualitative analysis.

Systematic Qualitative Organic Analysis of Organic Compounds possessing mono functional groups (-COOH, phenolic, aldehydic, ketonic, amide, nitro, amines) and preparation of one derivative.

Synthesis of organic compounds:

- a) Acetylation – preparation of Acetanilide.
- b) Halogenation – Preparation of p-bromoacetanilide.
- c) Oxidation – Preparation of Benzoic acid.
- d) Esterification - Preparation of n-butyl acetate.
- e) Methylation – Preparation β -naphthyl methyl ether.

Reference Books:

1. Vogel, A.I., Tatchell, A.R., Furnis, B.S., Hannaford, A.J. & Smith, P.W.G., *Textbook of Practical Organic Chemistry*, Prentice-Hall, 5th edition, 1996.
2. Mann, F.G. & Saunders, B.C. *Practical Organic Chemistry* Orient-Longman, 1960.
3. Ahluwalia, V.K. & Aggarwal, R. *Comprehensive Practical Organic Chemistry*, Universities Press.