

19BSC703P					Organic chemistry lab-III				
Teaching Scheme					Examination Scheme				
L	T	P	C	Hrs/Week	Theory	Tutorial	Term Work	Practical/Viva	Total Marks
0	0	2	1	2			50	50	100

COURSE OBJECTIVES

- To translate the theoretical knowledge of Organic Chemistry into practical application.
- To develop the skills for separation techniques
- To prepare different types of organic compounds in the form of simple drugs
- To learn good and safe laboratory practices.

LIST OF EXPERIMENTS

1. Introduction to the laboratory techniques: Fractional distillation (conventional and using rotary evaporator), Recrystallization, Drying of organic solvents
2. Chromatography: Thin layer chromatography, Column chromatography
3. Determination of melting point using visual melting point apparatus
4. Estimation of functional groups: Alcohol, carbonyl, Amide, Sugar and Amino acids
5. Simple organic preparations and Name reactions: Aldol condensation, Sandmeyer reaction, Cannizzaro reaction, Aromatic, Perkin's reaction, Knoevenagel condensation, Nitration, Coupling reactions etc.
6. Synthesis of Dyes: Azo dyes, Triphenylamine dyes, Fluorescein, eosin etc.
7. Synthesis of simple drugs: Paracetamol, Aspirin, Sulphanilamide etc.
8. Introduction to GLP and safety: Basics of Good laboratory practices and safety concepts.

COURSE OUTCOMES

On completion of the course, student will be able to

CO1– Apply the theoretical knowledge of separation techniques to perform organic separation

CO2– Perform thin layer and column chromatographic separation

CO3– Distinguish and estimate different oxygen containing function groups.

CO4– Perform the classical name reactions.

CO5– Prepare the simple analgesic and paracetamol type of drugs.

CO6– Prepare simple types of dyes of industrial application.

TEXT/REFERENCE BOOKS

1. A text book of practical organic chemistry- A. I. Vogel.
2. Practical organic chemistry- Mann and Saunders.
3. A handbook of quantitative and qualitative analysis- H. T. Clarke.
4. Organic Synthesis Collective Volumes by Blat.

SEMESTER EXAMINATION PATTERN

Max. Marks: 100

LW(Daily lab performance plus journal)

LE (Viva-voce plus Lab examination)

Exam Duration: 3 Hrs

50 Marks

50 Marks