

SC-521P					Organic Chemistry-II Lab					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
0	0	3	1	3				50	50	100

COURSE OBJECTIVES

- Learn safety measures while working in the laboratory.
- Knowledge about different laboratory reagents and multistage synthesis.
- Learn how to handle hazardous chemicals with all the safety measures.
- Application of organic chemistry for industrial and domestic use.
- Learn advanced laboratory techniques.

LIST OF EXPERIMENTS

1. Extraction of Natural product (5 different extractions)
2. Multistage synthesis of organic compounds (4 different synthesis)
3. Introduction to the important/sensitive organic reactions/Reagents (10 different sensitive reactions/reagents)
4. Introduction to the advanced laboratory techniques (2 techniques)
5. Synthesis of Dyes & pigments (7 dyes)
6. Synthesis of Drugs (4 drugs)
7. Estimation of functional groups (6 estimations)
8. Introduction to the Analytical and Instrumental Techniques (2 Instrumental techniques)
9. Separation and identification of mixtures (4 mixtures)
10. Identification of compounds by spectroscopy

COURSE OUTCOMES

On completion of the course, student will be able to
 CO1– Extract natural products from organic compounds
 CO2– Design multistage synthesis
 CO3– Separate organic compounds mixtures
 CO4– Understand different separation techniques
 CO5– Estimate different functional groups
 CO6– Identify the structure of the organic compound by spectroscopy

TEXT/REFERENCE BOOKS

1. Vogel A. I., Furniss B.S., Hannaford A.J., Smith P.W.G., Tatchell A. R., "Vogel's Textbook of Practical Organic Chemistry", 5th Ed., Prentice Hall, 1996. John Wiley & Sons Inc
2. Modern projects and experiments in organic chemistry: Mini scale and Williamson micro scale, second edition by Jerry R. Mohrig et al; W.H. Freeman and Company Press; ISBN: 0-7167-3921-6
3. B.S. Furniss, A.J. Hannaford, V. Rogers, P.W.G. Smith and A.R. Tatchell, "Text book of Practical Organic Chemistry", LBS, Singapore, 1994

SEMESTER EXAMINATION PATTERN

Max. Marks: 100

LW (Daily lab performance plus journal maintain each 25 marks)

LE (Viva-voce plus Lab examination each 25 marks)

Exam Duration: 3 Hrs

50 Marks

50 Marks