

18BSC602P					Organic Chemistry Lab -II					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week				Practical		Total Marks
								LW	LE/Viva	
0	0	2	1	2				50	50	100

**COURSE OBJECTIVES**

- Concern about safety precautions in laboratory while handling glassware, equipment, and chemical.
- Comprehend the scientific methodology for need and importance of chemistry in pharmaceutical industry.
- Understand the theoretical back ground of each practical.
- Realize the principle of chromatography, separation and purification techniques.
- Ability to characterize the synthesized organic molecule by melting point, IR and UV.

**LIST OF EXPERIMENTS**

1. Detection of Functional Groups or Class Determination (eight different functional groups) (4 slot)
2. Qualitative single detection of some common organic compounds by chemical methods (10 different ) (4 slot)
3. Thin layer chromatography of plant pigments (spinach extraction and identification of component mixture by TLC) (1 slot)
4. Separation, purification and identification (by m.p, IR and UV) of the components of a binary mixture ( 2 slot)
5. Organic synthesis/derivative and identification by spectroscopy technique (2 slot)

**COURSE OUTCOMES**

On completion of the course, students will be able to

CO1– Summarize in findings the writing in a clear and concise manner.

CO2– Able to identify the several functional groups through chemical test reaction.

CO3– Capable to predict the outcome and mechanism of some simple organic reactions, using a basic understanding of the relative reactivity of functional groups.

CO4– Knowledge to carry out work up and separation procedures.

CO5– Critically evaluate data collected to determine the identity, purity, and yield of products.

CO6– Assess scientific method to create, tests, and evaluate a hypothesis.

**TEXT/REFERENCE BOOKS**

1. Mendham, J., A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Pearson, 2009.
2. 1. A. I. Vogel, A text book of quantitative Inorganic Analysis, ELBS.
3. 2. A. K. Nad, B. Mahapatra & A. Ghosal, An Advanced Course in Practical Chemistry, New Central, 2007. Vogel's Text Book of Practical Organic Chemistry (5th Edn).
4. Finar, I. L. Organic Chemistry (volume 1), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
5. Nutritionand Cancer, 46(2), 222–231

**SEMESTER EXAMINATION PATTERN**

**Max. Marks: 100**

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

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

**Exam Duration: 3 Hrs**

50 Marks

50 Marks