

- To understand the elucidation of structure of organic compounds using UV, IR, NMR and mass spectra, locating the organic compounds by reference to literature, use of computers in the study of conformation and geometry of simple organic molecules, utility of chemdraw and chemsketch.

Separation of components from mixture of organic compounds by fractional crystallization, fractional distillation, adsorption, Paper, TLC and column chromatography. The purification and characterization of organic compounds.

Determination of pKa values, molar extinction coefficients, keto-enol equilibrium, order of reactions-S<sub>N</sub>1 and S<sub>N</sub>2 reactions, salt effect and effect of acidity on reaction rates.

Preparation and Estimation of aryloxyacetic acids, anilinoacetic acids, Carbohydrates, Proteins.

Elucidation of structure of organic compounds using UV, IR, NMR and Mass spectra.

Locating an organic compound by reference to literature (Chemical Abstract).

Applications of computers in the study of conformation and geometry of some simple organic molecules. Utility of Chem draw and Chem sketch.

#### References:

1. Elementary Practical Organic Chemistry-Vol. III quantitative Organic Analysis- A.I. Vogel
2. Vogel's Text Book of Practical Organic Chemistry- Furniss et al. (ELBS)1978.
3. Experimental Organic Chemistry- Vol. I &II- P. R. Singh (Tata McGraw-Hill) 1981.
4. Practical Organic Chemistry- IV Ed- Dey & Sitaraman (Allied)
5. Laboratory Experiments in Organic Chemistry-Adam, Johnson & Wicon (McMillan), 1979.
6. Experimental Organic Chemistry- H. D. Durst & G. E. Goke (McGraw-Hill) 1980.
7. More Spectroscopic Problems in Organic Chemistry-A.J. Baker et al.(Heyden) 1975.
8. Spectral Problems in Organic Chemistry- Davis & Wells (Chapman & Hall) 1984

### OC P 559: PROJECT WORK AND DISSERTATI

#### COURSE OUTCOME:

Enable the students:

- To design the project by collecting required background material by referring the literature
- To understand the functioning and safety features in the industry.
- To improve the experimental and soft skills.
- To learn various analytical and instrumental techniques and interpretation of analytical data.