

**M.Sc. Semester-IV**  
**Organic Chemistry Practicals**  
**CHNN-706 (O) & CHNN-707 (O)**

**1) Organic Separation:**

Separation, purification and Identification of three compounds (Ternary Mixture) 10 grams organic mixture by semi micro method- preparation of derivative. (Minimum Five mixtures should be done).

**2) Organic Estimation (Semi micro Methods):**

1. Estimation of Isoniazid
2. Estimation of Ibuprofen
3. Estimation of Paracetamol by hydrolysis
4. Estimation of Diazepam by non aqueous titration
5. TLC of Drugs

**3) Organic Preparation:**

Two & Three stage preparation from 4 & 5 grams starting materials semi micro method (Minimum five should be done) including name reactions.

Spectroscopic Problems: Identification of Organic Compound by either spectral data or actual spectra (Combined UV-Visible, Mass, IR,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR).

**Basic Text & Reference Books:**

1. Vogel's Textbook of Practical Organic Chemistry, 5<sup>th</sup> edition, B. S. Furniss, A. J. Hannaford, P. W. G. Smith, A. R. Tatchell (Pearson Education)
2. Comprehensive practical organic chemistry: Qualitative analysis, V. K. Ahluwalia, Sunita Dhingra (Universities Press)
3. Organic Structures from Spectra, 5<sup>th</sup> edition, L. D. Field, S. Sternhell, J. R. Kalman (Wiley: A John Wiley & Sons Ltd publication)
4. Elementary Organic Spectroscopy: Principles and Chemical Applications (revised edition), Y. R. Sharma (S. Chand Publishing)