REFERENCES:

1. A..I. Vogel : A Text book of Quantitative Inorganic Analysis, (ELBS), 1978.
2. APHA, AWWA and WPCF: Standard Method for the Examination of water and Waste Water (Washington DC),1989,
3. I. M. Kolthof and E.P. Sandell: Quantitative Chemical Analysis.McMillan,1980
4. I.Williams, Environmental Chemistry, Wiley, 2001
5. Lobinski and Marczenko, Comprehensive Analytical Chemistry, Vol.30, Elsevier,1996.

CH P 508: ORGANIC CHEMISTRY PRACTICALS – III

COURSE OUTCOME:

- Enable the students to understand and learn the principle of quantitative estimation of different types of organic molecules,
- Methods of organic preparations using multistep synthetic protocol,
- Isolation and purification of intermediate and final products,
- Use of computers in the study of conformation and geometry of some simple organic molecules.

Quantitative Determination: of sugars, amino acids, phenols, amines by various methods. Determinations of acid & ester and acid & amide in the given mixtures.

Multi Step Organic Synthesis: Synthesis of Ethyl resorcinol from Resorcinol, ε-Caprolactam from cyclohexanone, p-Amionobenzoic acid from p-Nitrotoludine, s-Tribromobenzene from aniline, Benzanilide from Benzophenone, Benzylic acid from Benzoin, 2,5-Dihydroxy acetophenone from Hydroquinone, 2,4-Dinitrophenylhydrazine from Chlorobenzene, m-Nitrobenzoic acid from Benzoic acid, 2,4-Dinitrophenol from Chlorobenzene, o-Aminobenzoic acid from Phthalic anhydride.

Separation Techniques: Separation of components from mixture of organic compounds by fractional crystallization, fractional distillation, adsorption, Paper and TLC. Their purification and characterization.

Applications of computers in the study of conformation and geometry of some simple organic molecules.

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1. Elementary Practical Organic Chemistry-Vol. III quantitative Organic Analysis- A.I. Vogel
2. Experimetal Organic Chemistry- Vol. I &II- P.R.Singh, Tata McGraw-Hill, 1981.
3. Practical Organic Chemistry- IV Ed- Dey &.Sitaraman (Allied)
4. Laboratory Experiments in Organic Chemistry-Adam, Johnson &Wicon(McMillan, London), 1979.
5. Experimental Organic Chemistry- H.D.Durst & G.E.Goke (McGraw-Hill)1980.
6. Computers and their applications to Chemistry, Ramesh Kumari (Narosa).
7. Short Manual to the Chemical Drawing Program-ChemDraw®- Stefan Bienz (CambridgeSoft).