

**SEMESTER-III**  
**PAPER-2 SEPARATION AND IDENTIFICATION OF ORGANIC COMPOUNDS**  
**PRACTICAL SYLLABUS**

**Course code P20/CHE/DSC/302/P**

**Course type: DSC-10**

**No. of credits: 2**

**Max Marks: 50**

**No. of Hrs/ week: 4 Hrs**

**COURSE OUTCOMES:**

- CO1 Will be able to separate the given organic mixture based on the solubility.
- CO2 Identify various functional groups present in the given organic compound by using a systematic procedure.
- CO3 Familiarize with the tests involved in identification of various functional groups.
- CO4 Maintain a detailed scientific note book, summarize findings in writing in a clear and concise manner

**Separation and Identification of Organic Compounds**

Separation of two component mixtures by chemical methods and their identification by chemical reactions — separation by using solvent ether, 5 % aqueous sodium bicarbonate, 5% sodium hydroxide and dil hydrochloric acid, checking the purity of the two components by TLC, identification of the compounds by a systematic study of the physical characteristics (mp/bp), extra elements (nitrogen, halogens and sulfur), solubility, functional groups, preparation of crystalline derivatives and identification by referring to literature. A minimum of **09** mixtures should be separated and analyzed by these procedures.

Separation of three component mixtures by chemical methods. A minimum of two mixtures should be separated and analyzed.

**Cannizzaro reaction:** 4-Chloro benzaldehyde as substrate and separation of the resulting two component mixture.

**SEMESTER-III****PAPER-2 SEPARATION AND IDENTIFICATION OF ORGANIC COMPOUNDS****MODEL PRACTICAL QUESTION PAPER**

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**No. of Credits: 2**

**Time: 3hrs**  
**Max. Marks: 50**

- Q1.** Write the principle involved in the separation of a given Binary/ Ternary Organic mixture.  
**10M (CO1&CO4)**
- Q2.** Separate and identify the two components present in the given binary mixture of Organic Compounds by following a systematic procedure. Submit two derivatives for each compound and report their melting points. **25M (CO2, CO3)**
- Q3.** Record + Attendance **5M**
- Q4.** Viva **10M**