ORGANIC CHEMISTRY LAB
(Common to all Branches)

Course Code: 15BC1108

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Course Outcomes:

At the end of the course, students will be able to:

CO 1 Determine preliminary characteristics of organic compounds.

CO 2 Identify the functional groups of organic compounds.

CO 3 Prepare derivatives based on functional groups.

CO 4 Apply various methods, for synthesizing organic compounds.

CO 5 Recognize the therapeutic potential and commercial importance of the compounds prepared.

Qualitative analysis of simple organic compounds by following systematic procedure.

Analysis includes the following three stages

STAGE-I: PRELIMINARY CHARACTERISTICS

i. State,

ii. Boiling point & Melting point

iii. Solubility test,

iv. Flame test

v. Un saturation test

vi. Neutral ferric chloride test

vii. Sodium fusion extract preparation for the detection of hetero elements-" N,S, Cl, Br, I"

STAGE-II: DETECTION OF FUNCTIONAL GROUPS

i. carboxylic acids,

ii. Phenolic group

iii. Carbohydrate
iv. Aldehydes & ketones
v. amides,
vi. esters,
vii. amines
viii. nitro groups

STAGE-III: CONFIRMATION OF FUNCTIONAL GROUP THROUGH DERIVATIVE

The functional group should be confirmed by the preparation of suitable derivative and this should be reported along with result.

2. PREPARATION OF THE FOLLOWING ORGANIC COMPOUNDS.

i. Aspirin
ii. Acetanilide
iii. Nitrobenzene

REFERENCE:

1. PWG. Smith & B.S. Furniss, *"Vogel's Text book of Practical Organic Chemistry"*, 5th Edition, Longman Publisshers Pvt. Ltd., 1989