SEC-1

Medicinal & Pharmaceutical Chemistry

Total Credit: 3 **Total Hours: 72**

(Objective: to provide the basic knowledge and laboratory exposure to the students to develop professional skills regarding the medicinal plant at local area, their usefulness and isolation of the active ingredients of the medicinal plants)

A. A project: Collection and brief introduction of at least 10 herbal plants

B. Extraction

1. Extraction of eucalyptus leaf ingredient
2. Extraction of eugenol from clove
3. Extraction of nicotine from tobacco.
4. Curcumine from turmeric
5. Extraction of caffeine from tea/coffee

References:

- Patrick, G. L. Introduction to Medicinal Chemistry, Oxford University Press, UK, 2013.
- Singh, H. & Kapoor, V.K. Medicinal and Pharmaceutical Chemistry, Vallabh Prakashan, Pitampura, New Delhi, 2012.
- Foye, W.O., Lemke, T.L. & William, D.A.: Principles of Medicinal Chemistry, 4th ed., B.I. Waverly Pvt. Ltd. New Delhi.

SEC-2

Medicinal & Pharmaceutical Chemistry

Total Credit: 3 **Total Hours: 72**

(Objective: to provide the basic knowledge and laboratory exposure to the students to develop professional skills regarding the medicinal plant at local area, their usefulness andisolation of the active ingredients of the medicinal plants)

(Different analytical techniques in Medicinal & Pharmaceutical Chemistry)

A. Separation of amino acids using paper chromatography
B. Spectrophotometric detection of
    i. Preservatives in packaged food items
    ii. Colour additives in sweet meat

C. Total sugar estimation from different sources
D. Vitamin-C estimation using redox titration method
E. pH of soft drinks & health drinks