

VII SEMESTER
PHARMACEUTICAL ANALYSIS-III

THEORY 3 hours/ week

UNIT -I

- 1. Ultraviolet and visible spectrophotometry-** Introduction, Basic Principle, Instrumentation, Practical Applications, Interpretation of spectra.
- 2. Atomic Absorption Spectroscopy-** Principle, Instrumentation and Applications.
- 3. Flame Photometry-** Principle, Instrumentation and Applications.

UNIT -II

- 1. Infrared spectrophotometry-** Basic Principle, Instrumentation, Practical Applications, Interpretation of spectra. Fundamentals of Ft-IR.
- 2. Nuclear Magnetic resonance spectroscopy (H1 NMR, C13 NMR) -** Theoretical aspects, Instrumentation and Applications.
- 3. Mass Spectrometry-** Basic Principle, Instrumentation, Practical Applications, Interpretation of spectra.

UNIT -III

Introduction to Chromatography, Types of Chromatography, Various Modes.

- 1. Column Chromatography-** Principle, Instrumentation and Applications.
- 2. Liquid Chromatography-** Principle, Instrumentation and Applications.

UNIT-IV

- 1. Thin Layer Chromatography (TLC) -** Principle, Instrumentation and Applications.
- 2. High Performance Thin Layer Chromatography (HPTLC) –** Basic Principle and Practical Applications.

UNIT-V

- 1. High Performance Liquid Chromatography-** Principle, Instrumentation and Applications.
Gas Chromatography- Theoretical considerations, Instrumentation and Applications