

Chemical and Pharmaceutical Analysis (30Hrs)

- 1. General Introduction*
- 2. Sampling of solid, Liquid, and Gases: Definition, Types of samples, Sampling plan, quality of sample, sample registration etc.*
- 3. Sample Preparation methods:*
- 4. Instrumental methods of analysis: Classification, advantages of instrumental methods, the limitations, sensitivity, accuracy, detection limit etc.*
 - i) PH-Metry*
 - ii) Colorimetry*
 - iii) UV-Spectrophotometer*
 - iv) Spectrofluorometer*
 - v) Polarimeter*
 - vi) Potentiometer*
 - vii) Conductivity meter*
- 5. Thermal Methods of Analysis: Introduction, Theory, and application of TGA, DSC, DTA etc.*
- 6. Chromatographic Methods of Analysis: Liquid chromatography, Partition, Ion exchange, paper, Thin layer chromatography, Column, Gel chromatography, GC, GC-MS, HPLC etc.*
- 7. Titrimetric methods of Analysis:*