

(LI 4270)

FEBRUARY 2016

Sub. Code: 4270

**FOURTH YEAR B.PHARM. EXAMINATION
PAPER IV – MODERN METHODS OF PHARMACEUTICAL
ANALYSIS****Q.P. Code: 564270****Time: Three hours****Maximum: 100 Marks****I. Essay: (2 x 20 = 40)**

1. a) Write the principle, instrumentation and applications of UV-Vis Spectrophotometry.
2. a) Explain the principles and applications of AAS.
b) Explain the working principle and instrumentation of fluorimetry with a neat labeled diagram.

II. Short notes: (8 x 5 = 40)

1. Explain the construction and working of Hydrogen electrode.
2. Write a note on ultracentrifugation.
3. Explain briefly the preparation & activation of TLC plates.
4. List the various detectors used in HPLC. Explain in detail the working principle of UV detector with a neat labeled diagram.
5. Write a note on Electron Spin Resonance spectroscopy.
6. Write short notes on conductometric titrations.
7. Describe the instrumentation of NMR with a neat diagram.
8. Write a note on sample handling in IR spectroscopy.

III. Short answers: (10 x 2 = 20)

1. What is Retention time and R_f value?
2. Define isocratic & gradient elution.
3. Write any two advantages of Amperometric titrations.
4. Write Nernst equation. What is its significance?
5. Define migration current.
6. Define fluorescence.
7. Define hypso chromic and hyper chromic shift.
8. Write any two applications of Nephelo-turbidimetry.
9. List various types of cation and anion exchangers.
10. Define Base peak.
