(LP 4270) AUGUST 2019 **Sub. Code: 4270**

B.PHARM. DEGREE EXAMINATION
FOURTH YEAR
PAPER IV – MODERN METHODS OF PHARMACEUTICAL ANALYSIS

Q.P. Code: 564270

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. a) Write in detail about the principle and instrumentation of HPLC with a neat diagram.
   b) Write about the various types of curves in conductometric titrations.
2. a) Explain about the principle and instrumentation of fluorimete
   b) Explain the factors affecting the fluorescence intensity.

II. Write notes on: **(8 x 5 = 40)**

1. Derive an equation for Beer-Lamberts Law.
2. Explain the reaction of amino acid with Ninhydrin reagent in paper chromatography.
3. Sources used in IR Spectroscopy.
4. What are the types of ion exchange resins used in Ion exchange chromatography?
5. Write a note on the preparation and activation of TLC plates.
6. Short note on coupling constant.
7. Write notes on GLP.
8. Potentiometric titrations.

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

1. Explain Bathochromic shift and Hypsochromic shift.
2. Ilkovic equation.
3. Define quenching.
4. What is Junction potential?
5. Define the term retention time, retention volume.
6. Define Parent peak.
7. Define validation.
8. Give the range of I Spectrum.
9. What is edge effect?
10. Write different techniques in X-ray diffraction.

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