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(LQ 4270) FEBRUARY 2020 **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) Explain different types of electronic transitions.
   b) Define Auxochrome and Chromophore with examples.
   c) What is Frank codon principle explain?
   d) Compare Double beam and Single beam spectrophotomete

2. a) Outline basic instru mentation of High Performance Liquid chromatography.
   b) Define Relative Retention and Retention Index.
   c) Describe different type of development techniques and methods used to locate spots in paper chromatography.

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

1. Write different mass analysers used in Mass Spectrometry.
2. Give Bragg's equation and explain.
3. Explain about Monochromato
4. Explain term Quenching.
5. Explain Shielding and de-shielding spin coupling in NMR spectroscopy.
6. Write note on ES
7. Write applications of mass spectroscopy.
8. Rheodyne.

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

1. Define absorption maxima.
2. Define Base peak.
3. Expand ISO.
4. What is molecular ion peak?
5. Name different currents observed in Polarogram.
6. Define Fluroescence.
7. Define Limiting Current.
8. What is Chemical shift in NMR?
9. Define Beer Lamberts Law.
10. Define absorptivity.

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