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# M. PHARMACY DEGREE EXAMINATIONS, JULY - 2022 First Semester INDUSTRIAL PHARMACY

## MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Time: Three Hours

Maximum: 75 Marks

#### **SECTION - A**

#### Answer any FIVE Questions.

5x5 = 25 M

- 1. Write a brief note on solvent effect in UV Spectroscopy.
- 2. Give an account on Quenchers in Spectrofluorimetry.
- 3. Briefly explain the factors influencing chemical shift.
- 4. What are metastable ions and isotopic peaks?
- 5. Describe the columns used in High Performance Liquid Chromatography.
- 6. Define Bragg's law and outline the applications of X-ray Crystallography.
- 7. Write a brief note on Radioimmunology Assay.

#### **SECTION - B**

### Answer any FIVE Questions.

5x10 = 50 M

- 8. Write a note on Instrumentation of Dispersive and Fourier Transform IR Spectrometer.
- 9. Explain the principle and solvent requirement in NMR spectroscopy.
- 10. Give an account on different types of Ionization techniques in Mass Spectroscopy.
- 11. Write the principle, instrumentation and applications of Ion exchange chromatography.
- 12. Give a detailed account on Gel electrophoresis.
- 13. Write a detailed note on ELISA with special emphasis on its applications.
- 14. Mention the principle and applications of
  - a) Affinity chromatography.
  - b) Atomic absorption spectroscopy.

