### First Semester M.pharm Degree Examinations April 2018

# M.Pharm (Pharmaceutical Analysis)

## Paper I: Modern Pharmaceutical Analytical Technique (MPA101T)

#### Time: 3 Hours

- Answer all Questions.
- Draw Diagrams wherever necessary.

#### Essays

## (3x10=30)

(9x5=45)

**Total Marks: 75** 

Reg. No:.....

- 1. Describe the principle, instrumentation and application of differential thermal analysis
- 2. Explain fragmentation rules and ions formed in mass spectrometry
- 3. Discuss the theory of fluorescence emission and quenching mechanisms

#### Short Notes

- 4. Bragg's law and its applications
- 5. Principle of capillary electrophoresis and iso electric focusing
- 6. Ultra high performance liquid chromatography
- 7. Principle and application of affinity chromatography
- 8. 13CNMR and its pharmaceutical application
- 9. Interferences in flame emission and atomic absorption spectroscopy
- 10. Pharmaceutical applications of UV-Visible spectroscopy
- 11. Dispersive and Fourier transform IR spectrometer
- 12. Types and importance of ion selective electrodes in potentiometry.

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