QP CODE: 111328 Reg. No:.....

## First Semester M.pharm Degree Examinations March 2019 M.Pharm (Pharmacology)

Paper I: Modern Pharmaceutical Analytical Technique (MPA101T)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Explain in brief about the principle and instrumentation of NMR spectroscopy.
- 2. Discuss in detail about principle, theory and instrumentation of mass spectroscopy.
- 3. High performance thin layer chromatography explain

Short Notes (9x5=45)

- 4. Application of UV-visible spectroscopy.
- 5. Flame emission spectroscopy.
- 6. Paper electrophoresis
- 7. Heat flux and power compensation.
- 8. Instrumentation of thermal gravimetric analysis.
- 9. X-ray powder technique.
- 10. lon exchange chromatography.
- 11. Applications of potentiometry.
- 12. Data interpretation in IR spectroscopy.

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