QP CODE: 111329 Reg. No:......

First Semester M.pharm Degree Examinations March 2019 M.Pharm (Pharmaceutical Analysis)

Paper I: Modern Pharmaceutical Analytical Technique (MPA101T)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Describe in detail about fragmentation patterns in mass spectroscopy.
- 2. Enumerate the theory, instrumentation of fluorescence spectrofluorimetry. Add a note on sampling methods of IR spectroscopy.
- 3. Explain the principle and instrumentation on of HPTLC. Enlist the factors influencing chemical shift in NMR spectroscopy

Short Notes (9x5=45)

- 4. Atomic absorption spectroscopy.
- 5. Explain the relaxation process of NMR.
- 6. Capillary electrophoresis.
- 7. Advantages, disadvantages and application of TGA.
- 8. What is X-ray crystallography, add note on rotating crystal technique.
- 9. Matrix-assisted laser desorption/ionization.
- 10. Theory and laws of UV-visible spectroscopy.
- 11. Explain the modes of molecular vibrations in IR spectroscopy.
- 12. Discuss about ion selective electrodes and applications of potentiometry.
