QP CODE: 111327 Reg. No:......

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

Paper I: Modern Pharmaceutical Analytical Techniques (MPA101T)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Explain about mass spectroscopy fragmentation and its rules.
- 2. Discuss the working principle and instrumentation of HPLC.
- 3. Explain about chemical shift and factors influencing chemical shift in NMR spectroscopy

Short Notes (9x5=45)

- 4. Describe about the modes of molecular vibrations in infrared spectroscopy.
- 5. ELISA.
- 6. Explain the theory of UV-visible spectroscopy.
- 7. Describe about various detectors used in gas chromatography.
- 8. Discuss about the production of X-rays.
- 9. Explain briefly about capillary electrophoresis.
- 10. Explain about ion exchange chromatography.
- 11. Explain the principle of atomic absorption spectroscopy.
- 12. Explain the theory of fluorescence and factors affecting fluorescence intensity
