# **M.Pharm (Pharmaceutical Chemistry)**

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

#### Time: 3 Hours

- Answer all Questions.
- Draw Diagrams wherever necessary.

### Essays

- 1. Explain the principle, choice of mobile phase, pumping systems, sample injection system and column packing materials in HPLC
- 2. What is chemical shift. How it is measured. What are the factors influencing the chemical shift.
- 3. Explain the construction and working of fast atom bombardment mass spectrometry

### **Short Notes**

- 4. Describe the differential UV spectroscopy with an example.
- 5. What are the factors affecting vibrational frequencies in IR spectroscopy
- 6. What are the interferences in atomic absorption spectroscopy
- 7. Explain different types of quenchers in spectroflourimetry with suitable examples
- 8. Describe the ultra-high performance liquid chromatography
- 9. Briefly explain the thermogravimetric analysis
- 10. Describe the paper electrophoresis
- 11. Applications of X ray diffraction analysis
- 12. Describe various electrodes used in potentiometry.

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## **QP CODE: 111331**

(9x5=45)

(3x10=30)

Reg. No:....

**Total Marks: 75**