

QP CODE: 111327

Reg. No:.....

**First Semester M.Pharm Degree Supplementary Examinations
January 2021**

M.Pharm (Pharmaceutics)

Paper I: Modern Pharmaceutical Analytical Techniques (MPA101T)

(2017 Scheme)

Time: 3 Hours

Total Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Describe the principle and instrumentation for UV-visible spectroscopy.
2. Describe the factors affecting vibrational frequencies and applications of IR spectroscopy.
3. Explain the principles of FT-NMR and ¹³C NMR

Short Notes

(9x5=45)

4. High performance liquid chromatography (HPLC).
5. Mass fragmentation and its rules.
6. Enlist the chromatography techniques and its applications.
7. Bragg's law.
8. RIA (radioimmunoassay) and its importance.
9. The various types crystals and applications of X-ray diffraction.
10. Applications of fluorescence spectrophotometer.
11. Factors influencing chemical shift.
12. Principle of atomic absorption spectroscopy
