

QP CODE: 111350

Reg. No:.....

**First Semester M.Pharm Degree Regular/Supplementary Examinations
April 2025**

Paper I: Modern Pharmaceutical Analytical Techniques (MPT 101T)

(2019 and 2024 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. Discuss about the theory, instrumentation and applications of Mass Spectroscopy.
2. Write in detail about principle, instrumentation and working condition of paper Electrophoresis.
3. Explain the principle, instrumentation and interferences of atomic absorption spectroscopy.

Short Notes

(9x5=45)

4. Write note on ^{13}C NMR.
5. Write sample handling techniques in IR Spectroscopy.
6. Discuss about experimental parameters of Differential Scanning Calorimetry.
7. Write in detail about interferences and applications of Flame emission spectroscopy.
8. Write a brief note on FAB in Mass spectroscopy.
9. Discuss about principle and instrumentation of ion exchange chromatography.
10. Explain the laws of UV – visible spectroscopy.
11. Discuss in detail about radio immuno assay.
12. Write about principle and instrumentation of differential thermal analysis.
