

QP CODE: 211331

Reg. No:.....

**Second Semester M. Pharm Degree Regular/Supplementary Examinations
November 2024**

M.Pharm (Pharmaceutical Chemistry)

Paper I - Advanced Spectral Analysis (MPC 201T)

(Common for 2017 and 2019 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 the general fragmentation rules in mass spectroscopy.
2. Explain the various components of super critical fluid chromatography.
3. Write the principle, instrumentation and applications of LC – MS.

Short Notes

(9x5=45)

4. Explain the Woodward -Fieser rule for 1,3-butadiene.
5. Assign the probable NMR values for • 3,5-dinitro benzoic acid • benzaldehyde
6. Write a note on IR interpretation of organic compounds with suitable examples.
7. COSY technique in NMR.
8. Differentiate between 1-D NMR and 2-D NMR.
9. Explain methodology employed in performing radioimmuno assay of digitalis.
10. Write the applications of flash chromatography.
11. Compare Ion chromatography and Ion exclusion chromatography.
12. Write the applications of Raman spectroscopy.
