

QP CODE: 211331

Reg. No:.....

**Second Semester M. Pharm Degree Supplementary Examinations
December 2023**

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. Explain the principle, instrumentation and applications of GC-MS with special emphasis on interphase
2. Explain the principle and working of ATR-IR
3. Give the principle, instrumentation and applications of DSC

Short Notes

(9x5=45)

4. Explain Woodward-Fieser rule for α , β -carbonyl compounds
5. Give an account on NOESY and INADEQUATE techniques
6. How will you identify the following functional group in an organic compound (C=O, OH, C=N, COOH, Ar C=C) by IR spectroscopy
7. Explain in detail Mc Lafferty rearrangement
8. Explain principle and applications of flash chromatography
9. The instrumentation of Raman spectroscopy
10. ELISA
11. Explain the principle involved in TGA
12. Differentiate between TLC and HPTLC
