

QP CODE: 211331

Reg. No:.....

**Second Semester M. Pharm Degree Regular/Supplementary Examinations
October 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. Classify INADEQUATE techniques with suitable examples.
2. Explain the instrumentation and applications of DSC.
3. What is HPTLC. Discuss its advantages over conventional TLC. Give the instrumentation and applications.

Short Notes

(9x5=45)

4. Explain Woodward – Fieser rule. Give the base value of acyclic and hetero annular dienes as per Woodward – Fieser rule.
5. Write the principle and applications of Attenuated Total Reflection (ATR).
6. Explain HETCOR Technique.
7. How Metastable ions are generated.
8. Explain Mc lafferty rearrangement with suitable example.
9. What are isotopic peaks. Give the significance.
10. Discuss the instrumentation of GC-MS.
11. Explain the basic principle of Raman spectroscopy.
12. Write the principle and applications of ELISA.
