

QP CODE: 111350

Reg. No:.....

First Semester M.Pharm Degree Supplementary Examinations July 2023

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

(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 Beer-Lambert law, instrumentation and working involved in UV-Visible spectroscopy, applications of UV-Visible spectroscopy.
2. Explain the principle and instrumentation of flame emission spectroscopy.
3. Explain the principle, instrumentation of Differential Thermal Analysis (DTA).

Short Notes

(9x5=45)

4. Explain molecular ion and metastable ions in mass spectroscopy.
5. Explain Bragg's law and write applications of X ray diffraction.
6. Explain principle, instrumentation and working of gas chromatography.
7. Compare gas chromatography with high performance liquid chromatography.
8. Write the principle of NMR spectroscopy.
9. Explain principle, apparatus used and instrumentation of Thin Layer Chromatography(TLC) technique.
10. Chemical shift and factors affecting chemical shift.
11. Write the principle of FT NMR.
12. Explain principle, instrumentation and working conditions of gel electrophoresis.
