

QP CODE: 112331

Reg. No:.....

First Semester M.Pharm Degree Supplementary Examinations July 2023

**M.Pharm (Pharmaceutical Chemistry)
Paper II: Advanced Organic Chemistry I (MPC 102T)
(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 about SN₂ reactions with specific emphasis to their mechanism, relative reactivity and orientations.
2. Explain the detailed mechanism and synthetic applications of Dieckmann reaction and Vilsmeier–Haack reaction.
3. Briefly give an account on the synthetic applications of aluminium isopropoxide, N-bromosuccinimide and osmium tetroxide.

Short Notes

(9x5=45)

4. Write a note on various protection strategies employed for the carbonyl group in organic synthesis.
5. Write the mechanism and applications of Pinner Pyrimidine Synthesis and Traube purine synthesis.
6. Outline the synthesis of Celecoxib and Chlorpromazine.
7. Give an account on the stability and synthetic applications of carbocations.
8. Brief out on the basic principles and advantages of retrosynthetic approach.
9. Outline the approaches for the synthesis of four membered rings.
10. Write a note on the Functional group addition methods in retrosynthetic analysis.
11. Write briefly on C-C disconnection approaches in alcohols.
12. Give an account on various rearrangement reactions.
