

QP CODE: 112331

Reg. No:.....

**First Semester M.Pharm Degree Supplementary Examinations
August 2024**

**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. Elaborate on the generation, stability and synthetic applications of Carbocations and Carbenes
2. Explain in detail about the SN1 and SN2 reactions. Write about Ullmann coupling reaction and its application.
3. Describe the mechanism and applications of Combes Quinoline synthesis and Traube purine synthesis

Short Notes

(9x5=45)

4. Outline the synthesis of Chloroquine and Theophylline.
5. Write the synthetic applications of Wittig reagent.
6. Write the synthetic applications of Osmium tetroxide & N-bromosuccinimide.
7. Discuss about the role of protection in organic synthesis.
8. Sharpless asymmetric epoxidation and its application.
9. Explain protection of hydroxyl group in organic synthesis
10. Give an account on the synthetic importance of Debus–Radziszewski imidazole synthesis.
11. Explain C-X disconnection strategy in carbonyl compounds.
12. Outline the approaches for the synthesis of four membered rings.
