QP CODE: 112331 **Reg. No:……**

First Semester M.Pharm Degree Regular/Supplementary Examinations June 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. Discuss the mechanism and applications of Knorr pyrazole synthesis, Smiles rearrangement and Traube purine synthesis.

2. Discuss about the formation, stability, relative reactivity, orientation and applications of free radicals.

3. Outline the mechanism and write the synthetic importance of Mannich reaction, Brook rearrangement and Ozonolysis.

Short Notes **(9x5=45)**

4. Write a note on acetals and ketals as protecting groups.

5. Outline the synthesis of Ketoconazole and Metronidazole.

6. Write about Functional Group Interconversion (FGI) and Functional Group Addition (FGA)

7. Strategies for synthesis of five membered rings.

8. Write the synthetic applications of Osmium tetroxide and titanium chloride.

9. Write briefly on C-C disconnection approaches in alcohols.

10. Write the mechanism and synthetic applications of Sandmeyer reaction.

11. Discuss about the protection for amino group and amino acids.

12. Write in detail about rearrangement reactions.

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