

QP CODE: 112331

Reg. No:.....

**First Semester M.Pharm Degree Regular/Supplementary Examinations  
November 2021  
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. Define carbocation and classify, write short note on structure, reaction and synthetic application of carbocation.
2. Explain the mechanism involved in Vilsmeier-Haack reaction and Baeyer-villiger oxidation.
3. Explain the mechanism involved in E1 and E2 reaction with its reactivity and orientation.

**Short Notes**

**(9x5=45)**

4. Explain basic principle and advantages of Retro-synthesis. Explain the method followed to disconnect a carbon-halogen bond.
5. Define and explain Ullmann coupling reactions.
6. Write short note on brominating agents used in organic synthesis with their application.
7. Explain the role of Triphenylphosphine in Wittig reaction.
8. Write the structure and uses for any five Imidazole containing drugs.
9. Explain stereo chemical and topological strategies adopted in Retrosynthesis.
10. Explain any two methods for synthesis of Quinolone and Imidazole.
11. Write the synthesis of Mercapto purine and Ketoconazole.
12. Explain the protection of Carbonyl group.

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