

**First Semester M.Pharm Degree Regular/Supplementary Examinations**  
**June 2024**  
**M.Pharm (Pharmaceutical Chemistry)**  
**Paper III – Advanced Medicinal Chemistry (MPC 103T)**  
**(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 the stages of drug discovery and development. Add a note on lead optimization
2. How do you rationally design non covalently binding enzyme inhibitors. Explain with two case studies.
3. Explain the design of peptidomimetics by incorporating conformational constraints locally and globally with one example

**Short Notes**

**(9x5=45)**

4. Explain bioisoteric replacement strategies.
5. Explain prodrug design for drug absorption and distribution.
6. Compare Enzymes vs Artificial enzymes with examples.
7. Discuss the causes for drug resistance.
8. Classify adrenergic drugs. Discuss the synthesis of any one adrenergic drug.
9. Explain the role of chirality in selective and specific therapeutic agents.
10. Discuss the chemistry of thromboxanes.
11. Write the synthesis of any two antihistaminic drugs.
12. Explain drug receptor interactions with examples.

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