

[Total No. of Questions - 15] [Total No. of Printed Pages - 2]
(2064)

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M. Pharmacy 2nd Semester Examination

Drug Design

MP-223

Time : 3 Hours

Max. Marks : 90

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

- Note :** (i) Any one question of 25 marks is to be answered from Section I.
- (ii) Any three questions of 10 marks each are to be answered from Section II.
- (iii) Any seven questions of 5 marks each are to be answered from Section III.

SECTION - I

Note: Attempt any one of the following questions.

1. Enlist the various objectives of lead optimization. Discuss in detail various strategies for the optimization of a lead molecule.
2. Discuss in detail the basis of drug design and recent advances in the development of antineoplastic drugs. (25×1=25)

SECTION - II

Note: Attempt any three of the following questions.

3. Discuss the discovery and recent advances in the design of enkephalins.

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4. Define and classify bio-isosters. Give their application in drug design.
5. Discuss enzyme inhibitors as therapeutic agents.
6. Write down the recent advances in the development of antihypertensive agents. (10×3=30)

SECTION - III

Note: Attempt any seven of the following questions.

7. How does stereochemistry of a drug molecule effects its action? Discuss with suitable examples.
8. Define pharmacophare. What are the various methods of 3D pharmacophare identification?
9. Discuss the significance of biochemical informations in evolving a new drug.
10. Discuss the chemistry of Beta-lactam antibiotics.
11. Write a note on various molecular mechanic methods used in molecular modeling.
12. Differentiate between reversible and irreversible enzyme inhibitors.
13. Write down the various methods used for discovery of a lead compound.
14. Differentiate between analog based and structure based drug design.
15. How will you characterize a known receptor site for drug design? (5×7=35)