(2064)

14828

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.

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)