



[Time: 3 Hours]

[Max. Marks: 75]

Advanced Medicinal Chemistry

Q.P. CODE: 5119

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any Three)

3 X 10 = 30 Marks

1. Discuss the various stages involved in identification of a lead molecule. Explain the methods of lead optimization and its objectives.
2. What are antihypertensive agents? Classify with examples. Write the synthesis and MOA of Propranolol.
3. Discuss the modification of various functional groups in the design of prodrugs.
4. Explain the rational design of non-covalently and covalently binding enzyme inhibitors with examples.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Explain the different theories of drug-receptor interactions.
6. Explain the different strategies to combat drug resistance in anticancer therapy.
7. Write a note on design of stereo isomers and geometric isomers with respect to analog design of drugs.
8. Classify anticonvulsant agents with examples. Write the MOA and synthesis of Phenobarbitone.
9. Write a note on COX1 inhibitors. Write the synthesis of any one COX1 inhibitor.
10. Classify antiviral agents with examples. Write the synthesis of zidovudine.
11. Explain in detail enzyme inhibitors in basic research with examples.
12. What are peptidomimetics? Explain its therapeutic importance.
13. Outline the importance of high throughput screening with applications.
14. Write a brief note on designing of peptidomimetics.

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