



Time: Three Hours

Max. Marks: 75 Marks

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 modification of various functional groups in the design of prodrugs.
2. Explain the various stages of drug discovery. Add a note on validation of drug targets.
3. Write a note on rational design of non-covalently and covalently binding enzyme inhibitors.
4. Explain and classify antineoplastic agents with example. Write the synthesis and mechanism of action of Methotrexate.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Write a note on COX-2 inhibitors. Write the synthesis of any one COX-2 inhibitor.
6. Outline the genetic principles of drug resistance
7. Explain various theories of drug-receptor interaction with example.
8. Explain various strategies followed to combat drug resistance in anticancer therapy.
9. Write a note on Bioisosteric replacement and position isomer in analog design.
10. Write the importance and application of high throughput screening.
11. Write a note on combinatorial chemistry.
12. Classify H1 and H2 receptor antagonist with example. Explain the synthesis of any one H2 antagonist.
13. Write a brief note on designing of peptidomimetics.
14. Write a note on artificial enzyme.

* * * * *