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. What is a lead molecule? Discuss the various stages involved in identification of a lead molecule.
2. What are antihypertensive agents? Classify with examples. Write a note on ACE inhibitors.
3. Explain the rational design of non-covalently and covalently binding enzyme inhibitors.
4. Write a note on rationale of prodrug design and its practical considerations.

SHORT ESSAY (Answer any Nine) **9 X 5 = 45 Marks**

5. Write a note on genetic principles of drug resistance.
6. Outline the biosynthetic pathway of thromboxanes.
7. Write a note on beta blockers with examples and give the synthesis of Propranolol.
8. Explain the design of stereo isomers and geometric isomers with respect to analog design of drugs.
9. Write a note on H_1 receptor antagonists. Write the synthesis of any one H_1 receptor antagonist.
10. Define Peptidomimetics? Explain its medicinal importance.
11. Outline the design of Peptidomimetics by modification of the peptide backbone.
12. Write the application of enzyme inhibitors in designing of therapeutic agents.
13. Write a note on enantio selectivity in drug absorption and metabolism.
14. Write a note on high throughput screening and its applications.

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