



Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer **FOUR** questions

ANSWER ANY FOUR

4 X 25 = 100 Marks

1.
 - a) What is serendipity? Explain with suitable examples **(10+15=25 marks)**
 - b) On what basis prodrugs are designed? Explain with the help of appropriate examples
2.
 - a) How do natural products act as leads for new drug discovery **(8+8+9=25 marks)**
 - b) Discuss the different carbohydrate based drugs, giving their uses
 - c) Give different classes of oral hypoglycemic agents giving two examples for each class
3.
 - a) Explain the emergence of new antihypertensive agents with improved safety profiles. How are ACE inhibitors designed? **(11+14=25 marks)**
 - b) Write a note on:
 - Prostaglandins involved in GI tract related problems
 - Somatostatin
4.
 - a) Describe SAR of cardenolides as positive inotropic agents. Comment on the non-steroidal molecules with cardiotonic activity **(11+14=25 marks)**
 - b) Explain briefly:
 - Resistance to antifungal drugs
 - Metal ions as drug targets
5.
 - a) Explain the chemistry of penicillins giving different modifications leading to variation / improvement in activity profile **(11+14=25 marks)**
 - b) Write short notes on:
 - Platinum-based drugs
 - Clavulanic acid and analogues
6. Write short notes on: **(5 x 5 =25 marks)**
 - a) Acyclovir
 - b) Actinomycins
 - c) Mitotic inhibitors
 - d) DNA-topoisomerase
 - e) Colchicine

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