

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

**LONG ESSAY (Answer any TWO)****2 X 20 = 40 Marks**

1. Explain the structural elucidation of Reserpine based on chemical degradation, synthesis and spectral data
2. a) Write a note on antipseudomonal penicillins and Cephalosporins  
b) Write the structures and uses of clavulanic acid analogs and Carbapenams
3. a) Write the structures, mechanism of action and therapeutic importance of purine and pyrimidine related antineoplastic agents  
b) Elucidate the structures of vincristine and Vinblastine based on chemical degradation and Spectral data

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. Write a note on antifertility agents
5. Write briefly the chemistry of Insulin. List out the various preparations of Insulin
6. Write the active constituents with their chemistry and importance of any two antidiabetic crude drugs
7. Discuss the structural elucidation of EMETINE
8. Discuss the chemistry of Cardiac glycosides
9. Explain the SAR of adrenal cortex hormones

**SHORT NOTES****2 X 5 = 10 Marks**

10. Purine and pyrimidine related antifungal agents
11. Chemistry of amidopenicillins

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