

[Time: 3 Hours]

[Max. Marks: 75]

Chemistry of Natural Products**Q.P. CODE: 5120**

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

LONG ESSAY (Answer any Three)**3X 10 = 30 Marks**

1. Discuss about the development of anti-cancer agents from natural product leads.
2. Elucidate the structure of ephedrine and write a note on stereochemistry of ephedrine.
3. Give the structural elucidation of progesterone.
4. What are monoclonal antibodies? Explain in detail how they are produced through hybridoma technology

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

5. Discuss in brief about Curare alkaloids as neuromuscular blocking drugs.
6. Discuss about the new generation cephalosporins.
7. Classify alkaloids with examples. Add a note on their biological activity.
8. What are flavonoids? Give the general methods of structural determination of flavonoids.
9. Discuss the chemistry and biological importance of cardiac-glycosides.
10. Classify terpenoids with examples. Write a note on isolation of terpenoids.
11. Explain in brief about recombinant DNA technology.
12. Give four important chemical constituents from a) *Salacia reticulata* b) *Swertia chirata* c) *Pterocarpus marsupium*. Mention their medicinal uses.
13. How do you characterize the structure of a steroid compound by using NMR and Mass Spectroscopy
14. Discuss in brief the use of IR spectroscopy as a tool for the structural characterization of natural compounds.

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