

[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 curare alkaloids as neuromuscular blocking drugs.
2. Explain structural elucidation of morphine alkaloids.
3. Explain the structure elucidation of testosterone.
4. Give active constituents of following crude drugs used in indigenous system (Diabetic therapy)
Gymnema sylvestre, Salacia reticulate, Swertia chirata, Trigonella foenum

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

5. Discuss about drugs affecting the central nervous system.
6. Write a note on chemistry of Azithromycin.
7. Give general classification of alkaloids, isolation and purification of alkaloids.
8. Explain structural elucidation of Quercetin.
9. What are steroids? Write a note on cardiac glycosides.
10. Explain the principles of RNA and DNA estimation.
11. Discuss oligo nucleotide therapy.
12. How do you differentiate between Alkaloids and Glycosides by IR, ^1H NMR and ^{13}C NMR spectroscopy?
13. Characterize the monoterpenoids using IR, ^1H NMR and MS spectroscopy.
14. Discuss about recent advances in gene therapy.

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