



[Time: 3 Hours]

[Max. Marks: 75]

Phytochemistry

Q.P. CODE: 5132

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. Explain the various methods of extractions with emphasis on choice of solvents.
2. Explain the biosynthesis, isolation and characterization of strychnine and digitoxin.
3. Explain selection and optimization of lead compounds with respect to anticancer and antitubercular drugs.
4. Explain the different methods of screening of antiurolithiatic and analgesic activity.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Write the biosynthetic pathway of ephedrine.
6. Explain different methods of fractionation of extracts.
7. Explain the difference between the preparative HPLC and Flash chromatography.
8. Write the method of isolation, purification and characterization of withanolides.
9. Describe HPTLC fingerprinting of drugs containing alkaloids.
10. Explain LCMS analysis of saponins.
11. Explain protocol design for lead molecules from plants with examples.
12. List out various In vitro In vivo methods of antipsychotic Phytoconstituents and explain any one In vivo method
13. Explain the techniques of AAS (Atomic Absorption of Spectroscopy) in analysis of herbal drugs.
14. Explain SCFE technique with advantages and disadvantages.

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