[Time: 3 Hours] [Max. Marks: 100]

## MEDICINAL CHEMISTRY - II (NATURAL PRODUCTS) PAPER IV

(Revised Scheme 2)

**Q.P. CODE: 9234** 

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

## LONG ESSAY (Answer any TWO)

2 X 20 = 40 Marks

- 1. Discuss the general methods for the isolation of alkaloids. Explain Hoffmann's exhaustive methylation method and its importance in structural elucidation of alkaloids. Elucidate the structure of Reserpine.
- 2. a) Define glycosides. Classify cardiac glycosides with relevant examples.
  - b) Discuss the SAR of cardiac glycosides.
  - c) Write a note on the sugar moieties attached to cardiac glycosides.
- 3. a) Give the degrading and spectroscopic evidence to establish the structure of vincristine.
  - b) Elucidate the structure of cholesterol.

## **SHORT ESSAY (Answer any FIVE)**

5 X 10 = 50 Marks

- 4. Discuss antifungal antibiotics.
- 5. Add a note on Isoprene rule and special Isoprene rule.
- 6. Chemistry of hormone vasopressin and its pharmaceutical importance
- 7. Explain the SAR comparing Digoxin and Ouabain.
- 8. Explain the applications of HPLC and GLC with special reference to plant constituents.
- 9. Outline the synthesis of Cortisone.

SHORT NOTES 2 X 5 = 10 Marks

- 10. Anti parasitic compounds from purines and pyrimidines
- 11. Explain the chemistry and importance of any two anti diabetic crude drugs.

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