## SECOND YEAR B.PHARM. EXAM PAPER III – ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY

O.P. Code: 564258

Time: Three Hours Maximum: 100 marks

I. Essay: (2X20=40)

1. a) What is Walden Inversion explain in detail the mechanism of reaction and factors affecting Walden inversion.

- b) Give important methods of preparation and chemical reactions of Pyridine.
- 2. a) Give the structural elucidation of Atropine.
  - b) Give the definition, mechanism of reaction and applications of Meerwin pondroff reaction and Schimdt reaction

**II. Short notes:** (8X5=40)

- 1. Explain Catalytic hydrogenation.
- 2. Explain the various methods of nomenclature of Geometrical isomers.
- 3. Write the chemistry of vitamin A.
- 4. Elucidate the structure of Caffiene.
- 5. Explain the chemistry of Lanatosides.
- 6. Give the Halogenation, Coupling reaction and Reduction reaction of Furan.

(10X2=20)

- 7. Write the synthesis of Pyrimidine.
- 8. Explain any five methods of resolution of racemic mixture.

## III. Short Answers:

- 1. Give the application of mercuric acetate.
- 2. Write the structure and medicinal uses of Digitoxin and Theophylline.
- 3. Write the Friedal craft's reaction and Coupling reaction of Pyrrole.
- 4. Write any two reactions of Acridine.
- 5. Give the structure and medicinal uses of Thymol and Hesperidin.
- 6. Define Enantiomer and Diastereoisomer.
- 7. Define Clemmenson reaction with example.
- 8. Write any method of synthesis of phenothiazine.
- 9. List out the Alkaloidal reagents used for identification.
- 10. Classify glycosides based on the Aglycones present in it.

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