OCTOBER - 1997

[MS 707] **Sub. Code : 4172**

SECOND B.Pharm. DEGREE EXAMINATION.

(Common to New/Revised Regulations)

Paper II — ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. (a) Discuss the structural elucidation of phenanthrene.

(b) Write the different methods for the synthesis and reactions of phenanthrene.

(c) Write the structure and use of any two medicinally important phenanthrene derivatives. (4 + 8 + 3 = 15)

2. Write notes on the following : (5 × 3 = 15)

(a) Backmann rearrangement.

(b) Meerwin–Pondroff Verley reduction.

(c) Birch reduction.

(d) Schmidt rearrangement.

(e) Clemmensen reduction.

3. (a) Discuss in detail about the stereo-chemistry associated with fumaric and maleic acids.

(b) Write the important methods of resolving a racemic mixture.

(c) Discuss the optical isomerism of diphenyl derivative. (5 + 5 + 5 = 15)

4. (a) Explain the elements of symmetry with example.

(b) Discuss the conformation of Decalin.

(c) Discuss the isomerism of ketoxime. (6 + 5 + 4 = 15)

SECTION B — (6 × 5 = 30 marks)

Answer any SIX questions.

5. Explain the following reactions :

(a) Skraup's synthesis.

(b) Diels Alder synthesis.

6. Write the methods of synthesis and reactions of Furan.

7. Write the structure of

(a) Carbimazole.

(b) Nicotininc acid.

(c) Piperazine.

(d) Sulphathiazole.

(e) Mepacrine.

8. Explain the phenomenon of Walden Inversion with example.

9. Differentiate the following

(a) Asymmetric and Pseudo asymmetric.

(b) Enantiomers and diastereomers.

10. What is stereo isomerism? Describe the isomerism of Tartaric Acid.

11. Write the synthesis and chemical reaction of triphenyl methane.

12. Write the structure and name any ten heterocyclic rings containing two hetero atoms.

13. Explain catalytic hydrogenation with suitable examples.

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