

[KI 707]

Sub. Code : 4182

SECOND B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper II — ADVANCED PHARMACEUTICAL
ORGANIC CHEMISTRY

Time : Three hours Maximum : 90 marks

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

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

Answer Sections A and B in **SAME** answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any **TWO** questions.

1. (a) Give an account on the synthetic methods and reactions of naphthalene. (11)
- (b) Explain the reactivity and orientation of electrophilic aromatic substitution in naphthalene. (4)

2. (a) What do you mean by conformations? Give an account on the conformations in cyclohexane and their relative stability. (9)

(b) Write notes on sequence rule and their use in the determination of configuration of optical isomers. (6)

3. (a) What do you mean by catalytic hydrogenation? Explain the groups that can be hydrogenated, various catalyst used and mechanism of catalytic hydrogenation. (8)

(b) Give an account on Atropisomerism. (7)

4. (a) Write notes on the structure, synthetic methods and reactions of pyridine. (11)

(b) Write the structure and use of chloroquine and mepacrine. (4)

SECTION B — (6 × 5 = 30 marks)

Answer any **SIX** questions.

5. Write any three methods for the synthesis of triphenyl methane.
6. Explain various elements of symmetry with example.

7. Give an account on the isomerism exhibited by oximes. How do you assign configuration for them?
8. Explain the mechanism of Beckman rearrangement.
9. Write notes on aromaticity of pyrrole, furan and thiophene.
10. Write the synthetic methods for isoquinoline.
11. Write the structure and use of the following :
- (a) Piperazine
 - (b) Sulphathiazole
 - (c) Primaquine
 - (d) Carbimazole.
12. Write the chemistry and synthetic use of the following.
- (a) Birch reduction
 - (b) Clemmensen reduction.
13. Explain the following with examples.
- (a) Meso compounds
 - (b) Diastereomers.