[KH 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 & Sec. B : 60 marks

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

Answer Sections A and B in the **SAME** Answer Book.

Answer Section C in the Answer Sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. (a) Define the following terms and give examples

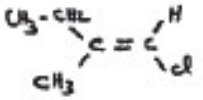
(i) Chirality

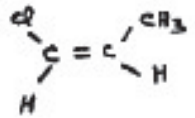
(ii) Enantiomers

(iii) Meso compounds. (6)

(b) Give an account on various methods of resolution of racemic mixture. (6)

(c) Assign absolute configurations for the followings : (3)

(i) 

(ii) 

2. (a) Give an account on the structure, synthesis and reactions of Phenanthrene. (9)

(b) Name important medicinal compounds of Phenanthrene derivative along with their structure and use. (2)

(c) Explain Meerwin–Pondorf reduction. (4)

3. (a) Explain the mechanism, various catalyst used and synthetic use of catalytic hydrogenation. (9)

(b) What do you mean by Atropisomerism? Give examples. Explain the reason for the optical activity of such isomers. (6)

4. (a) Give an account on the structure, synthetic methods, reactions and important medicinal compounds of Quinoline. (12)

(b) Write the structure and use of (3)

(i) Nikethamide

(ii) Isoniazide.

SECTION B — (6 × 5 = 30 marks)

Answer any SIX questions.

5. Write the synthetic methods for diphenyl methane.

6. Write notes on Walden inversion and its mechanism.

7. Explain the followings with examples :

(a) Racemic mixture

(b) Asymmetric carbon.

(c) Diastereomers.

8. Write notes on the followings :

(a) Schmidt rearrangement

(b) Birch reduction.

9. Explain synthetic methods for acridine. Write the structure and use of medicinal compounds of acridine derivative.

10. Give an account on the aromaticity and basicity of Pyridine.

11. Write notes on the metal hydrides used as reducing agent and their applications.

12. Write the structure and use of

(a) Nikathamide

(b) Piperazine

(c) Tolazoline

(d) Nicotinic acid.

13. Write notes on the use of the following oxidising agents with reactions

(a) Mercuric acetate

(b) Selenium oxide.

———————