

APRIL - 2004

[KK 707]

Sub. Code : 4182

SECOND B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper II — ADVANCED PHARMACEUTICAL  
ORGANIC CHEMISTRY

Time : Three hours                      Maximum : 90 marks

Sec. A & B : Two hours and  
forty minutes                      Sec. A & B : 70 marks

M.C.Q. : Twenty minutes                      M.C.Q. : 20 marks

Answer Sections A and B in the **SAME** answer book.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Give one method of preparation and any two chemical reactions of Triphenyl methane and Anthracene. Give the structure and medicinal use of any four drugs containing naphthalene, and phenanthrene. (2 each)
2. What is the difference between the terms configuration and conformation? Explain with examples. Write a detailed account of conformational analysis.

3. Define Waldane inversion with an example. Give its mechanism and mention the factors influencing its mechanism.
4. Mention the different reagents used in oxidation process. Discuss the mechanism of oxidation in each case with the help of one suitable example.

SECTION B — (8 × 5 = 40 marks)

Answer any EIGHT questions.

5. Give the preparation and one chemical reaction of Diphenyl methane and Anthracene.
6. Describe any two methods for the resolution of racemic modification.
7. Describe the modern theory of double bonds.
8. Define and give one example for asymmetric synthesis.
9. With the help of two examples explain the mechanism of reduction by metal hydrides. How is it different from catalytic reduction?
10. Give the mechanism with the help of one example of Schmidt and Beckman rearrangements.

11. What is hybridization? Describe  $sp^3$  hybridization with a suitable example.
12. Give the preparation and any two reactions of thiophene.
13. Give the skeletal structure and medicinal uses of Nikethamide, Chinioform, Phenytoin, Mepacrine and Carbimazole.
14. With the help of one example each give the mechanism of Birch reduction and Clemenson reduction.