

AUGUST - 2005

[KN 707]

Sub. Code : 4182

SECOND B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper II — ADVANCED PHARMACEUTICAL
ORGANIC CHEMISTRY

Time : Three hours

Maximum : 90 marks

Theory : Two hours and
forty minutes

Theory : 70 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

I. Long Essay :

(2 × 15 = 30)

Answer any TWO questions.

1. Write the preparation and important chemical reactions of Diphenyl methane and naphthalene. Give with suitable examples and their medicinal applications.
2. (a) Write the structure and uses of the following :
 - (i) Primaquine
 - (ii) Primidone.

- (b) Outline the preparation and mention the important chemical reactions of
- (i) Phenothiazine
 - (ii) Pyrimidine.
3. Discuss the following reactions with special reference to their mechanisms and synthetic application.
- (a) Schmidt rearrangement
 - (b) Darzein reaction
 - (c) Birch reduction.
4. Write a notes on :
- (a) Tetrahedral carbon atom
 - (b) Conformational analysis
 - (c) Stereochemistry of cyclic compounds.
- II. Short notes : (8 x 5 = 40)

Answer any EIGHT questions.

1. What happens, when
 - (a) naphthalene is treated with Acetyl chloride in the presence of AlCl₃
 - (b) naphthalene is treated with sodium and isopentanol and heat it to its boiling point (130°C).

2. Discuss the methods of resolution of racemic mixture.
3. Explain Cahn-Ingold Prelog system, with suitable example.
4. Describe Haworth synthesis of Anthracene.
5. Write a notes on catalytic hydrogenation.
6. Explain Meerwin-Pondroff reduction with suitable example.
7. Write the important properties of thiophene.
8. Write structure and medicinal uses of Phenytoin, nikethamide, chloroquin, piperazine and phenothiazine.
9. Give reason to justify pyridine is more basic than pyrrole.
10. Explain the stability of cis-trans isomerism.