APRIL - 1996

[AK 711] Subject Code : 4167

Second B. Pharm Degree Examination

(New Regulations)

Paper II - ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY

Time : Three hours Max. : 90 marks.

Two and a half hours

for Section A and B Sec. A and B : 60 marks.

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION—A (2X15 = 30)

Answer any TWO questions.

1. a) Classify heterocyclic compound with examples.
   b) Give the synthesis of any three
      1) Thiazole
      2) Pyrrazole
      3) Pyrimidine
      4) Thiophene
   c) Name with skeletal structures one of the medicinally useful compound belonging to each of the abcve heterocyclics. (5+6+4)

2. a) Discuss the structural evidences, and synthesis of phenanthrene and anthracene along with some important derivatives of the two, used in medicine. (8+7)

3. Explain the following with suitable examples.
   i) Chirality and optical activity
   ii) Resonance and stability
   iii) Recemic compounds and resolution methods

4. a) Discuss walden inversion with examples
   b) Stereochemistry of nitrogen compounds
   c) Conformational Analysis

SECTION—B (6X5 = 30)

Answer any SIX questions.

5. Give Synthesis of Diphenyl methane, its reactions and medicinally important derivative.

6. Compare Pyridine and Benzene on their reactivity

7. Discuss skraup synthesis with mechanism

8. How is diphenyl synthesised ? Give its numbering

9 Give examples of geometric isomers and the basic requirement of structural formation.

10. Explain modern concept of double bond formation

11. Explain tetrahedral nature of carbon

12. Give the paal-knor synthesis.

13 Give the structure of phenothiazine and name two of its derivative of medicinal use.

APRIL - 1996

[AK 714] Subject Code : 4172

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 B : 60 marks
for Section A and B

Answer Sections A and B in separate answer books.
Answer Section C in the answer sheet provided.

SECTION - A (2×15=30)

Answer any TWO questions.

1. a) What are heterocyclic compounds ? Give the various basic nuclei of each compound with name, numbering rules.

   b) Give general method of synthesis of
      1. Furan
      2. Pyrrole
      3. Pyridine

   c) Name with structures two important compounds of pharmaceutical uses each, for the above compounds (5+6+4)

2. Discuss the analytical and synthetic evidences to establish the chemical structures of
   1. Anthracene and
   2. Naphthalene along with examples for these two group of compounds (7+8)

3. Explain the terms with suitable examples
   1. Optical isomerism
   2. Tetrahedral carbon atom
   3. Elements of symmetry (3×5=15)

4. a) Discuss stereochemistry of Biphenyl
   b) Hybridization of orbitals
   c) Catalytic hydrogenation (3×5=15)

SECTION - B

Answer any SIX (6×5=30)

5. Give the synthesis and important reactions of Triphenyl methane. Name the important derivatives.

6. Discuss the absolute configuration of an optically active compound.

7. Compare enanteomers and diastereomers.

8. Discuss the stereochemistry of Nitrogen compounds.

9. Discuss walden inversion and its importance.

10. Discuss Merwin - Ponudorf reduction with example.

11. Explain the mechanism and application of Backmann management.

12. Discuss the use of perchloric acid as an oxidising agent.

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