OCTOBER - 1990

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SECOND B.Pharm. DEGREE EXAMINATION,
OCTOBER 1990.

Paper II — ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY

Time : Three hours. Maximum : 100 marks.

Answer SIX questions.

Questions No. 1 and 5 are compulsory.

Write the structural formulae wherever necessary.

1. Define and classify Heterocyclic compounds, giving examples for each class with the structural formulae. Explain various methods (reactions) used to open the ring (Ring fission) of heterocyclic compounds. (18 marks)

2. Mention different methods of preparation and important reactions of QUINOLINE (Or) PYRROLE. (16 marks)

3. Discuss different methods of preparation and chemical reactions of TRI-PHENYL METHANE. How can it be converted to Triphenyl carbinol and Triphenyl methyl chloride ? Give the skeleton structure of Triphenyl methane dyes. (16 marks)

4. Write explanatory notes of the following and mention their uses :

(a) Uses of pyridine in organic chemistry.

(b) Skraup's synthesis.

(c) Paal-Knorr synthesis.

(d) Friedel-Crafts condensation. (4 × 4 = 16 marks)

5. Discuss the preparation and various chemical reactions of NAPHTHALENE. (18 marks)

6. Write explanatory notes of the following. Give their uses.

(a) Azoles.

(b) Indole.

(c) Elbs reaction.

(d) Walden inversion. (4 × 4 = 16 marks)

7. Explain stereo-isomerism. Discuss the two different types of isomerism under this head with various examples. Mention the specific properties, which are essential in the molecules of compounds, to exhibit these types of isomerism. (16 marks)

8. Write short notes on :

(a) Uses of pyridine in organic chemistry.

(b) Hofmann exhaustive methylation.

(c) Physiological importance of the derivatives of pyrimidines.

(d) Diphenyl ethane. (4 × 4 = 16 marks)