

Ref. No. : Ex/PHARM/T/212/2019 (0)
B. PHARMACY SECOND YEAR FIRST SEMESTER - 2019
Subject : PHARMACEUTICAL CHEMISTRY - III (OLD)

Time : 3 hrs

Full Marks : 100

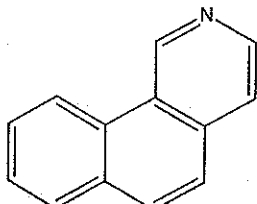
Answer any FIVE questions taking at least ONE from each group. ALL parts of a question must be answered in the same place of the answer-script.

Group A

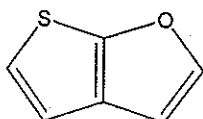
1. (a) Give systematic nomenclature of the following compounds:

[3 x 2]

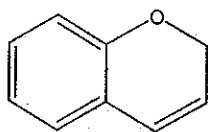
(i)



(ii)



(iii)



(b) Draw structures of the following heterocycles with numbering:

[4]

(i) Morpholine; (ii) Quinoxaline; (iii) Phthalazine; (iv) Pteridine

(c) Illustrate: (i) Reactions of furfural; (ii) Reactions of furoic acid

[5+5]

2. Write notes on:

[4 x 5]

- (i) Skraup synthesis
- (ii) Conrad Limpach synthesis
- (iii) Bischler Napieralsky synthesis
- (iv) Knorr Pyrrole synthesis

3. Give an account of different methods of synthesis of indole. Write down reactions of pyrrole.

[10 + 10]

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Group B

4. Short note on following? 20
- Hantzsch synthesis of pyridine
 - Electrophilic addition to pyridyl nitrogen
 - Chichibabin reaction
 - Nucleophilic substitution reactions of pyridine
5. Explain the following with examples? 10
- Hydrogen Bonding and tautomerism in Imidazoles 5
 - Imidazole Reactions with different Electrophilic Reagents 10
 - Short note on 1,4-Benzodiazepine 5
6. Solve the following? 20
- Types of coumarins (Structural)
 - Physical properties of purine
 - Biological Reactivity of β -Lactams
 - Derivatives of purine