

QP Code: 421006

Reg. No.....

**Fourth Semester B.Pharm Degree Regular/Supplementary
Examinations November 2025
Pharmaceutical Organic Chemistry III
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw diagrams wherever necessary

Essays

(2x10=20)

1. a) Describe the mechanism and applications of Clemmensen reduction and Birch reduction.
b) Explain methods of determination of configuration of geometrical isomers.
2. a) Compare the reactivity of Pyrrole, Furan and Thiophene with examples.
b) Write any two methods of preparation and reactions of Thiazole and Pyrazole.

Short Notes

(7x5=35)

3. Define Enantiomers and Diastereomers and give an example.
4. Write a note on Syn- and Anti - nomenclature of geometrical isomers with examples.
5. Explain about the stereoselective reactions.
6. Write any two methods of synthesis and medicinal uses of Quinoline.
7. Describe the mechanism and applications of LiAlH_4 reduction.
8. Write any two methods of synthesis and reactions of Indole.
9. Explain the aromaticity and basicity of Thiophene.

Answer Briefly

(10x2=20)

10. Draw the conformational isomers of n-Butane.
11. Define meso compounds with example.
12. Draw the structures of 2-Phenyl imidazole and trans-2-butene.
13. Write any two reactions of Pyrrole.
14. Write the structure and medicinal uses of Acridine.
15. What is Schmidt rearrangement.
16. Explain the basicity of Pyridine.
17. Define Axis of Symmetry with one example.
18. Draw the structures of 7-Methoxy isoquinoline and 2-Phenyl indole.
19. Write the structure and medicinal uses of Pyrimidine.

CORRECTION / NO-CORRECTION FILE
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QPCODE: 421006

Dated: 10-11-2025

Questiojn No.9

Replaced with "Hinsberg synthesis of Thiophene."

Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.

(Sd/-)

CONTROLLER OF EXAMINATIONS