

QP Code: 421006

Reg. No.....

**Fourth Semester B.Pharm Degree Supplementary Examinations
March 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. Explain the synthesis, chemical reactions and uses of pyridine and indole.
2. Explain the mechanism of Dakin's reaction and Beckmann's rearrangement.

Short Notes

(7x5=35)

3. Explain optical activity and elements of symmetry.
4. Write a note on racemic modification.
5. Explain stereospecific reaction.
6. Explain conformational isomerism in ethane and cyclohexane.
7. Explain the basic behaviour of pyrrole and explain its reactivity.
8. Explain the method of synthesis and reactions of oxazole.
9. Elucidate the mechanism of Clemmensen reduction. Give its synthetic applications.

Answer Briefly

(10x2=20)

10. Meso compound with examples.
11. Diastereoisomerism with examples.
12. EZ system nomenclature of geometrical isomers.
13. Give any one method of synthesis of thiophene.
14. What are conformational isomers.
15. Any one method of synthesis of furan.
16. Give any one method of synthesis of thiazole.
17. Write the structure of quinoline and acridine. Give any one medically important compounds with this basic structure.
18. Birch reduction.
19. Claisen-Schmidt condensation.
