

2010 Scheme

QP CODE: 201006

Reg. No:

Second Year B.Pharm Degree Supplementary Examinations July 2024

Pharmaceutical Chemistry III (Advanced Organic Chemistry)

Time: 3 Hours

Total Marks: 100

- **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 table/diagrams/flow charts wherever necessary**

Essay

(3x10=30)

1. Describe the synthesis and reactions of furan and thiophene.
2. What is rearrangement reactions. Explain the reaction mechanism and applications of Curtius rearrangement and Beckmann rearrangement.
3. Explain about modern theory of double bonds and methods of resolution of racemic modifications.

Short notes

(14x5=70)

4. Describe about conformational analysis.
5. Explain elements of symmetry with an example.
6. Write about stereoisomerism in biphenyl compounds.
7. Explain asymmetric synthesis.
8. Explain metal hydride reduction reactions.
9. Write the important applications of mercuric acetate and selenium oxide.
10. Mannich reaction.
11. Explain Fischer Indole synthesis.
12. Outline the reactions of quinoline and imidazole.
13. Pyrrole undergoes electrophilic substitution preferentially at α -position. Explain.
14. Explain the basicity of pyrrole.
15. Define and explain the nomenclature of heterocyclic compounds.
16. Describe the electrophilic substitution reactions of naphthalene.
17. Explain the aromaticity and electron density characteristics of phenanthrene.
