

2010 Scheme

QP CODE: 201006

Reg. No:

Second Year B.Pharm Degree Supplementary Examinations July 2023

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. Furan and Pyrrole undergo electrophilic substitution preferentially at α -position. Explain. Add a note on basicity of pyrrole.
2. What is catalytic hydrogenation. Explain the reaction mechanism and applications of Mannich reaction and Meerwin-Pondroff reduction.
3. Give a note on oxidation, reduction and electrophilic substitution reactions of naphthalene and phenanthrene.

Short notes

(14x5=70)

4. Geometrical isomers with examples.
5. Explain about stereospecific and stereoselective synthesis.
6. Modern theory of double bonds.
7. Relative and absolute configuration.
8. Explain the mechanism and applications of Birch reduction.
9. Write the important applications of perchloric acid and mercuric acetate.
10. Outline the mechanism and applications of Schmidt rearrangement.
11. Explain the synthesis of quinoline.
12. Outline the reactions of pyrazole and acridine.
13. Thiophene is more aromatic than furan and pyrrole.
14. Outline the synthesis and reactions of imidazole.
15. Write the synthesis and reactions of phenothiazines.
16. Describe the electrophilic substitution reactions of anthracene.
17. Give the aromaticity and electron density of naphthacene.
