2010 Scheme

QP CODE: 201006 **Reg. No: ……..**

Second Year B.Pharm Degree Supplementary Examinations July 2022

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. Write the definition, reaction, mechanism and applications of
    - Schmidt rearrangement
    - Birch reduction
2. ● Write in detail about asymmetric synthesis.
   ● Describe the stereochemistry of cyclic compounds
3. ●What are conformational isomers and write in detail about conformational analysis.
   ● Describe the modern theories of double bond with suitable examples.

Short notes **(14x5=70)**

4. Give important chemical reactions of Pyridine.
5. Give the Halogenation, Coupling reaction and Reduction reaction of Furan
6. Explain any five methods of resolution of racemic mixture.
7. Describe metal hydride reduction in detail
8. Describe the any three important Synthesis of isoxazole
9. Explain the Sequence rule for assigning configuration of optical isomers
10. Explain the following reactions:
    - Friedel-craft acylation of thiophene
    - Reimer-Tiemann Formylation of indole.
11. Discuss in detail the structure of naphthalene
12. Give reasons for the following.
    - Pyrrole undergoes electrophilic substitution at 2-position.
    - Pyridine undergoes electrophilic substitution at 3-position and nucleophilic substitution at 2- and 4-positions.
13. Explain the reduction process with hydrazine and its derivatives
14. Explain in detail the criterions for a compound to be optically active.
15. Explain DL system of nomenclature. What are its disadvantages.
16. Explain the factors affecting Walden inversion
17. Write any four reactions of isoquinoline.

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