QP Code: 421006 **Reg. No…….**

Fourth Semester B.Pharm Degree Supplementary Examinations
July 2023
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. Summarize the criteria for a compound to be optically active. Illustrate the methods used in resolution of racemic mixture.
2. Discuss the reaction, mechanism and applications of Birch reduction and Claisen-Schmidt rearrangement.

Short Notes **(7x5=35)**

3. Short notes on Conformational isomerism of cyclohexane.
4. Explain the Cis Trans and EZ system for the nomenclature of geometrical isomerism.
5. Explain aromaticity, basicity and reactions of pyridine.
6. Give any three methods of preparations of Indole.
7. Explain electrophilic substitution reactions of furan.
8. Write the synthesis of purines. Mention one derivative containing purine and its medicinal use.
9. Discuss about stereoisomerism in biphenyl compounds.

Answer Briefly **(10x2=20)**

10. Any two reactions of pyrrole.
11. Importance of metal hydride reduction.
12. What is D and L nomenclature.
13. What are the different types of asymmetric synthesis.
14. Give the structure of oxazole and thiazole with medicinal uses of any one compound with basic nucleus of each.
15. Define Staggered and eclipsed conformations.
16. What is R and S nomenclature.
17. Define Clemmensen reduction.
18. Any one method of preparation of quinoline.
19. Name any one medicinal compound having basic nucleus of furan, azepine, quinoline and indole.

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