

Rajiv Gandhi University of Health Sciences, Karnataka

Fourth Semester B. Pharm Degree Examination – 03-Nov-2023

Time: Three Hours

Max. Marks: 75 Marks

Pharmaceutical Organic Chemistry - III

Q.P. CODE: 5013

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

All the Questions are compulsory.

LONG ESSAYS

2 x 10 = 20 Marks

1. Discuss the nomenclature of optical isomers by R S and D L system of configuration.

OR

Explain the stereochemistry of Biphenyl and conditions required for optical activity.

2. Give the methods of synthesis and chemical reactions of Furan and Pyrrole.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain the reaction of chiral molecules in which bonds to the chiral centre are not broken and generation of second chiral centre.

OR

Write the possible stereoisomers of 2,3-dichlorobutane and identify the different types of isomers.

4. Discuss the various conformational isomers of cyclohexane.

OR

Write a note on aromaticity and reactivity of Thiophene.

5. Write the method of synthesis and chemical reactions of Isoquinoline.
6. Outline the synthesis and reactions of Oxazole
7. Discuss the systematic nomenclature of heterocyclic compounds.
8. Explain the mechanism involved in Schmidt rearrangement.
9. Write the mechanism of Oppenauer-oxidation reaction.

SHORT ANSWERS

10 x 2 = 20 Marks

10. Define diastereoisomerism with example.
11. Define plane of symmetry with example.
12. Illustrate with example of *Syn* and *Anti* system of nomenclature
13. Define Stereoselective reaction with suitable example.
14. Explain the basicity of pyridine.
15. Write the structure and medicinal uses of Pyrrole derivative.
16. Write any one method of synthesis of Acridine.
17. Give the basic structure and uses of Pyrimidine.
18. Give the structure and use of Sodium Borohydride.
19. What is Dakin reaction?
