

# Rajiv Gandhi University of Health Sciences, Karnataka

## Fourth Semester B. Pharm Degree Examination – 03-Jan-2020

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

**LONG ESSAYS (Answer any Two)****2 x 10 = 20 Marks**

1. Define configuration. Explain the R S and D L system of nomenclature of optical isomers.
2. Give various methods of determination of configuration of geometrical isomers.
3. What are heterocyclic compounds? Give their classification and systematic nomenclature with examples.

**SHORT ESSAYS (Answer any Seven)****7 x 5 = 35 Marks**

4. Distinguish between configuration and conformation with examples
5. Define chiral and achiral molecules with example. Write any two reactions of chiral molecules.
6. Discuss the various conformational isomers of cyclohexane.
7. Write methods of synthesis and reactions of Furan.
8. Write the methods of synthesis and chemical reactions of Pyrazole.
9. Write synthesis and reactions of Indole.
10. Explain Paal-Knorr synthesis of Pyrrole.
11. Describe the mechanism involved in Schmidt rearrangement.
12. Write the mechanism of Oppenauer-oxidation reaction.

**SHORT ANSWERS (Answer All)****10 x 2 = 20 Marks**

13. Define Meso compounds with example.
14. Define alternative axis of symmetry with example.
15. What do you understand by the term optical activity?
16. Define Stereoselective reaction with example.
17. Write the resonance structures of Thiophene.
18. What are Hetero atoms? Name the compounds containing hetero atom.
19. Write any one method of synthesis of Pyridine.
20. Give the structure and uses of Acridine.
21. Give the structure and use of Lithium Aluminium hydride.
22. Enumerate the synthetic application of Dakin reaction.

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