

# Rajiv Gandhi University of Health Sciences, Karnataka

**Third Semester B. Pharm Degree Examination – 29-May-2023**

**Time: Three Hours**

**Max. Marks: 75 Marks**

## **PHARMACEUTICAL ORGANIC CHEMISTRY - II**

**Q.P. CODE: 5009**

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. Explain the mechanism of halogenation of benzene. Halogens are deactivating group but ortho and para director. Give reasons.  
**OR**  
What are aromatic amines? Give any three methods of preparation of aromatic amines. Write a note on basicity of aromatic amines.
2. Enlist analytical constants of oils and fats. Discuss in detail about acid value and iodine value and give their significance.

### **SHORT ESSAYS**

**7 x 5 = 35 Marks**

3. Explain the reaction and mechanism of nitration of benzene.  
**OR**  
Explain the mechanism of Friedel-Craft's acylation.
4. What are phenols? Explain the acidity of phenols.  
**OR**  
Give three methods of preparation and three chemical reactions of aromatic acids.
5. Describe any one method of determine Acetyl value with its significance.
6. Define and classify polynuclear hydrocarbons. Give four chemical reactions of Anthracene.
7. Give any two methods of synthesis and two chemical reactions of naphthalene.
8. What are cycloalkanes? Write any four methods of preparation.
9. Explain Bayer's strain theory of cycloalkanes. What are its limitations?

### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

10. Define Electrophiles. Give two examples for Electrophiles.
11. Give synthetic uses of aryl diazonium salts.
12. Define Saponification value. Give its significance.
13. What do mean by Reichert Meissl (RM) value? Give its significance.
14. Define rancidity and drying of oils.
15. Write the structure and medicinal uses of **diphenyl** methane derivatives.
16. Write the structure and medicinal uses of triphenylmethane.
17. Write any two reactions of phenanthrene.
18. Give the reactions of cyclobutane.
19. What are Coulson and Moffitt's modifications?

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