

# Rajiv Gandhi University of Health Sciences, Karnataka

**Third Semester B. Pharm Degree Examination – 25-Apr-2025**

**Time: Three Hours**

**Max. Marks: 75**

## **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**

**$2 \times 10 = 20$  Marks**

1. What are aromatic amines? Give any three methods of preparation of aromatic amines. Write a note on basicity of aromatic amines

**OR**

What are oils and fats? How do they differ from each other. Enlist the analytical constants of oils and fats with their significance

2. What is electrophilic aromatic substitution reaction? Discuss the mechanism of nitration and halogenations of benzene

### **SHORT ESSAYS**

**$7 \times 5 = 35$  Marks**

3. Give any four chemical reactions of cyclopropane

**OR**

Explain the mechanism of Friedel-Craft's acylation

4. What are phenols? Explain the acidity of phenols

**OR**

Explain significance and reactions of hydrolysis and hydrogenation of oils and fats

5. Explain Bayer's strain theory of cycloalkanes. What are its limitations?

6. Discuss the orientation effect of hydroxyl and amino group in electrophilic substitution of benzene

7. Give any three methods of synthesis of phenols

8. Explain the Saponification and rancidity of oils and their significance

9. **Write the methods of synthesis and chemical reactions of anthracene**

### **SHORT ANSWERS**

**$10 \times 2 = 20$  Marks**

10. Define deactivating group. Give examples

11. Give the structure and uses of m-cresol and  $\beta$ -naphthol

12. Give qualitative test of phenol derivative

13. Write the structure and medicinal uses of phenanthrene derivatives

14. Give the pharmaceutical applications of fats and oils

15. What is Sachse Mohr's theory?

16. Give the halogenation reaction of naphthalene

17. Write structure and uses of DDT and saccharin

18. Define Nucleophiles. Give two examples for Nucleophiles

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19. Define diazotization and diazo-coupling

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Gen-Z Medicos