

# 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 x 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 x 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 a note on hardening of oils

### SHORT ANSWERS

**10 x 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
19. Define diazotization and diazo-coupling

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