

# Rajiv Gandhi University of Health Sciences, Karnataka

## Third Semester B. Pharm Degree Examination – 28-May-2024

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 is electrophilic aromatic substitution reaction? Classify substituent groups with examples. Explain the mechanism of Friedel-Craft's acylation  
**OR**  
Define Saponification value. Give principle involved in the determination of Saponification value (any one method)
2. What are aromatic amines? Explain the reactions of aromatic amines. Discuss the effect of substituents of basicity of aromatic amines

#### SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain the mechanism of nitration of benzene  
**OR**  
Explain acidity of phenols and mention the effect of substituents on acidity of phenols
4. What are cycloalkanes? Write any three methods of preparation  
**OR**  
Describe any one method to determine acetyl value with its significance
5. Explain Bayer's strain theory of cycloalkanes. What are its limitations?
6. Define and classify poly nuclear hydrocarbons. Give four chemical reactions of Anthracene
7. Describe any one method to determine Reichert Meissl (RM) value with its significance
8. Define acidity. Explain the effects of substituents on acidity of aromatic acids
9. Explain aromaticity and resonance of benzene

#### SHORT ANSWERS

10 x 2 = 20 Marks

10. Classify fats and oil with examples
11. Give the reactions of cyclopropane
12. Give qualitative test of phenol derivative
13. Write the structure and medicinal uses of phenanthrene derivatives
14. Give the nitration reaction of naphthalene
15. Define acid value. Give its significance
16. Give structure and uses of DDT and Saccharin
17. Synthetic uses of Aryl Diazonium salts
18. **Define Rancidity of Oil**
19. Explain iodine value and its significance

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