

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Third Semester B. Pharm Degree Examination – 23-Jun-2022**

**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. Define activating and deactivating groups? Explain effect of substituents on orientation and reactivity of monosubstituted benzenes in electrophilic aromatic substitution reaction.  
**OR**
  - a. Define aromatic amines? Explain effect of substituents on basicity of aromatic amines.
  - b. Explain the acidity and effect of substituents on acidity of phenols.
2.
  - a. Explain principle involved in any one method of determination of Acid value. Give its significance.
  - b. Explain Drying and Rancidity of Oils with their significances.

**SHORT ESSAYS**

**7 x 5 = 35 Marks**

3. Explain mechanism and reactivity of halogenations of benzene.  
**OR**  
Explain mechanism of sulphonation of benzene
4. Explain the aromaticity, orbital picture and resonance structure of benzene.  
**OR**  
Define and explain reaction mechanism of friedelcraft's acylation
5. Define and give significance of a) Acetyl value b) Reichrt Meissl Value
6. Outline any two synthesis and reactions of anthracene.
7. Write any two synthesis and reaction of phenantharene.
8. Explain Bayer's strain theory Write its limitations.
9. Explain any four methods of preparation of cycloalkanes.

**SHORT ANSWERS**

**10 x 2 = 20 Marks**

10. Write structure and uses of DDT and Chloramine.
11. Outline nitration of benzene.
12. Write the structure and uses of alpha naphthol and resorcinol.
13. Define saponification value. Give its significance.
14. Define ester value. Give its significance.
15. Give the composition of fats and oils.
16. Write structure and Medicinal uses of two naphthalene derivatives.
17. Write the uses of aryl diazonium salts.
18. Give addition reactions of cyclopropane.
19. Write two qualitative tests for Phenols.

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