

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Third Semester B. Pharm Degree Examination – 01-Dec-2020**

**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

**LONG ESSAYS (Answer any Two)**

**2 x 10 = 20 Marks**

1. a. Define electrophilic substitution reaction? Explain mechanism of halogenation of benzene.  
b. Explain mechanism of Friedel-Crafts alkylation of benzene with its limitations.
2. Explain the basicity and effect of substituents on basicity of amines. Add a note on aryl diazonium salts.
3. a. Explain principle involved in any one method of determination of saponification value. Give its significance.  
b. Explain Hydrolysis, hydrogenation and rancidity of oils with their importance.

**SHORT ESSAYS (Answer any Seven)**

**7 x 5 = 35 Marks**

4. Explain the aromaticity, orbital picture and resonance structure of benzene.
5. Explain the mechanism of nitration of benzene.
6. Explain the effect of substituents on reactivity and orientation of mono substituted benzene.
7. Explain the effect of substituents on acidity of phenols. Write structure and uses of resorcinol and cresol.
8. Explain any one method to determine iodine value with its significance.
9. Outline any two synthesis and reactions of naphthalene.
10. Write any two synthesis and reaction of anthracene.
11. Write a note on stability of cycloalkanes.
12. Explain the Sachtler-Mohr's theory of strain in rings.

**SHORT ANSWERS (Answer All)**

**10 x 2 = 20 Marks**

13. Define Huckel's rule.
14. Outline sulphonation of benzene.
15. Write the qualitative tests for phenols.
16. Define drying of oils. Give its significance.
17. Define Reichert Meissl value. Give its significance.
18. Define acid value. Give its significance.
19. Write structure and Medicinal uses of triphenyl methane.
20. Write structure and uses of DDT.
21. Outline one method of preparation of cycloalkanes.
22. Define polynuclear hydrocarbons and cycloalkanes.

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