

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Third Semester B. Pharm Degree Examination – JAN-2019**

**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. What is electrophilic aromatic substitution reaction? Discuss the mechanism of nitration and halogenation of benzene.
2. What are aromatic acids? Give any three chemical reactions of benzoic acid. Add a note on acidity of aromatic acids.
3. Explain drying, semidrying and non-drying oils with examples. Define and explain the principle involved in the determination of Saponification value (Any one method).

**SHORT ESSAYS (Answer any Seven)**

**7 x 5 = 35 Marks**

4. Define activating and deactivating groups with examples. Discuss the mechanism of sulphonation of benzene.
5. Explain the aromaticity, orbital picture and resonance structure of benzene.
6. What are phenols? Discuss the acidity of phenols.
7. Write any two synthesis and reactions of Anthracene.
8. What are aromatic amines? Explain the basicity aromatic amines.
9. Describe any one method to determine iodine value with its significance.
10. Write the any two synthesis and reactions of phenanthrene.
11. Define angle strain. Discuss why higher cycloalkanes are more stable than lower members.
12. Give any four methods of synthesis of cycloalkanes.

**SHORT ANSWERS (Answer All)**

**10 x 2 = 20 Marks**

13. Write the structure and uses of DDT and BHC.
14. Give the synthesis of benzoic acid.
15. Write the significance of hydrogenation of fats and oils.
16. Define rancidity. Give its significance.
17. Give the compositions of fats and oils.
18. Give any one synthesis of naphthalene.
19. Write the structure and medicinal uses of triphenylmethane.
20. Give the structure and uses of one medicinally important phenanthrene derivatives.
21. Give addition reactions of cyclopropane.
22. What is Sacke – Mohr's theory? Explain.

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