Sl.No:M21201 **Course Code: BP301T**

VINAYAKA MISSION'S RESEARCH FOUNDATION
(Deemed to be University) , SALEM

B.PHARM. DEGREE EXAMINATION – October 2021
Third Semester

PHARMACEUTICAL ORGANIC CHEMISTRY - II

Time : Three hours Maximum: 75 marks

I. Write essays on any **TWO** questions: **(2 x 10 = 20)**

1. Define aromatic electrophilic substitution reaction. Discuss the reaction and mechanism of nitration, halogenation, sulphonation, Friedel-Crafts alkylation and Friedel-Crafts acylation.
2. Explain various reactions of fatty acids. Write determination of iodine valued with its significance.
3. Discuss the different methods of synthesis of anthracene. Mention some of its important properties. How can be anthracene converted to anthraquinone and alizarine.

II. Write short answers on any **SEVEN** questions**:** **(7 x 5 = 35)**

4. Important reaction of cyclobutane.
5. Write any two methods of preparation of phenol.
6. Write the chemical reactions of aromatic carboxylic acid.
7. Bayer's strain theory and its limitations.
8. Explain the Haworth synthesis of naphthalene.
9. Describe about Coulson and Moffitt's modification.
10. Explain about resonance theory of benzene.
11. Write the preparation and synthetic utility of diazonium compounds.
12. What happens when Naphthalene?
    i) Reduce with H_2/Ni ii) Oxides with $KMnO_4$ iii) Addition of excess Cl_2
    iv) With Con.HNO_3 and Con.H_2SO_4 v) With Con. H_2SO_4 at 40^oC.

III. Write short notes on : **(10 x 2 = 20)**

13. Synthesis and uses of triphenyl methane.
14. Hybridization.
15. Structure and uses of cresol and resorcinol.
16. Basicity of amines.
17. Mechanism of halogenations of benzene.
18. Hinsberg test.
19. Structure and uses of DDT and BHC.
20. Sachse Mohr's theory.
21. Rancidity of oils.
22. Any two reactions of benzoic acid.

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