

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**B.PHARM. DEGREE EXAMINATION – JULY 2019  
Third Semester**

**PHARMACEUTICAL ORGANIC CHEMISTRY II**

Time : Three hours

Maximum: 75 marks

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

1. Explain the molecular orbital structure of benzene and criteria for aromaticity.
2. Write the acidic property of phenol and explain the effect of substituent on its acidity.
3. Explain the following analytical methods over fats and oils in detail.
  - a) Saponification number
  - b) Acid value
  - c) Iodine number
  - d) Ester value

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

4. Write the electrophilic substitution reaction in benzene.
5. Hofmann Rearrangement reaction.
6. Write short notes on Rancidification and Drying of oil.
7. Write the structure and uses of the following compounds.  
Naphthalene, Phenanthrene, Anthracene, Diphenylmethane, Triphenylmethane.
8. Write the oxidation reaction of Naphthalene.
9. What is Bayer's stain theory? Why cyclohexane is more stable than cyclopropane.
10. Write the ring – opening reaction of cyclopropane.
11. Write the structure and uses of DDT and Chloramine.
12. Write the nitration reaction of benzene.

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

13. What are annulenes?
14. Limitations in Friedel crafts alkylation.
15. Ortho-Para directing effect.
16. Give the structure and uses of BHC.
17. Write the structure and uses of cresol and resorcinol.
18. What is diazotizations?
19. Difference between oils and fats.
20. Write the resonance structure of anthracene.
21. Note on theory of strainless rings.
22. RM value.

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