

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 1022]

**OCTOBER 2022
(MARCH 2022 EXAM SESSION)**

Sub. Code: 2031

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER III
PAPER I – PHARMACEUTICAL ORGANIC CHEMISTRY II
Q.P. Code: 562031**

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Briefly elaborate on the effect of substituents on benzene during electrophilic substitution reaction.
2. Elaborate on the determination of any three analytical constants of fats and oils and their significance.
3. Discuss briefly on the acidity of phenols and the effect of substituents on acidity.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Write a note on diazonium salts.
2. Give an account on Kolbe's reaction with mechanism.
3. Brief out the tests to differentiate primary, secondary and tertiary amines.
4. Write a note on ortho effect on aromatic carboxylic acids.
5. Brief out on the hydrolysis and hydrogenation of fats and oils.
6. Give an account for the fact that phenols are more acidic than alcohols.
7. Give an account on Huckel's rule of aromaticity and orbital theory of benzene.
8. Briefly explain the reason for the preference of C9 position than C2 position in anthracene during chemical reactions.
9. Write a note on reactions of Benzene.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Write the method of preparation of picric acid.
2. Write the structure and use of Resorcinol and naphthol.
3. Give an account on the fate of aniline on reaction with potassium dichromate and sulphuric acid.
4. Write a note on Williamson's Ether synthesis.
5. Give an account on Coulson and Moffitt's modification in cycloalkanes.
6. Define fatty acid and give a detailed classification of fatty acids with examples.
7. Give any two examples of electrophilic substitution reactions of naphthalene.
8. Write about the ozonolysis reaction of benzene.
9. Write the reaction for the synthesis of benzoic acid from Grignard reagent.
10. Write on the addition reaction of cyclobutane with halogens.
