

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM – SEMESTER –3 EXAMINATION – SUMMER-2024****Subject Code: BP301TP****Date: 07/06/2024****Subject Name: Pharmaceutical Organic Chemistry II****Time: 02.30 p.m. to 5.30 p.m.****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	(a) Define and explain the analytical importance of, Acid value and Saponification value.	06
	(b) Write down any five methods of Preparation of Phenol.	05
	(c) Write a note on Reimer-Tiemann reaction.	05
Q.2	(a) Discuss Friedel craft alkylation and mention its limitation	06
	(b) Write a note on electrophilic aromatic substitution with general mechanism and explain any one reaction in detail.	05
	(c) Detail note on Huckel Rule.	05
Q.3	(a) Write a note on aryl diazonium salts.	06
	(b) Write down the structure and uses of these followings a) Cresol b) Saccharin c) Diphenylmethane d) Phenanthrene e) DDT	05
	(c) Define Polynuclear hydrocarbons and write a note on reaction of Naphthalene.	05
Q.4	(a) Write a note on reaction of benzoic acid.	06
	(b) Write a note on Preparation of aromatic amine	05
	(c) Write a note Hoffman degradation reaction.	05
Q.5	(a) Give detail note on conformation of cycloalkanes	06
	(b) Write a note on reaction of fatty acid	05
	(c) Explain: Bayer's strain theory and give the limitation of it	05
Q. 6	(a) Convert these followings: 1. Benzene to Acetophenone 2. Benzene to m- nitro benzaldehyde 3. Benzene to 4-methyl aniline	06
	(b) Comment 1. benzene does not undergo addition reaction 2. Why aromatic amines are less basic than aliphatic amines	05
	(c) Write a note on theory of strainless rings.	05
Q.7	(a) Write down three methods of Preparation of Phenanthrene, Anthracene.	06
	(b) Why animal fats are solids and Vegetable oils are Liquids? Justify with suitable examples.	05
	(c) Halogens are deactivators but o, p- directors. Justify with suitable examples	05