

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 3 EXAMINATION – WINTER -2019

Subject Code: BP301TP**Date: 14-11-2019****Subject Name: Pharmaceutical Organic Chemistry II****Time: 10:30AM TO 01:30PM****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) Write down the methods of preparation and uses of benzoic acid. **06**
(b) Halogens are deactivators but *o*, *p*- directors. Justify with suitable examples. **05**
(c) Write the principle and significance of Iodine number. **05**
- Q.2** (a) Write a short note Fries Rearrangement and Carbylamines reaction. **06**
(b) Write the mechanism Friedal Craft alkylation with its limitations. **05**
(c) Enumerate the influence of substituents on acidity of Aromatic acids. **05**
- Q.3** (a) Convert these followings: **06**
I. Phenol to Phenyl acetic acid
II. *p*- cresol to *p*-NO₂ benzyl tolyl ether
III. *o*- cresol to *N*- nitroso 2- methyl Phenol
(b) Describe in detail about Bayer's strain theory with its limitation **05**
(c) Write an informative note on Huckel's rule of aromaticity. **05**
- Q.4** (a) Comment these followings: **06**
I. Why Benzene undergoes Substitution reaction instead of addition reaction? Justify
II. Why reactivity of NO₂ benzene is slow in comparison to Benzene.
(b) Why animal fats are solids and Vegetable oils are Liquids? Justify with examples **05**
(c) Describe three different reactions of fatty acids with examples. **05**
- Q.5** (a) What happens when Anthracene reacts with these following? Write the reaction. **06**
I. Maleic anhydride
II. Na/C₂H₅OH
III. Na₂Cr₂O₇
(b) Write down any five methods of Preparation of Phenol **05**
(c) Write down methods of Preparation of Naphthalene. **05**
- Q. 6** (a) Convert these followings: **06**
I. Chloro benzene to Benzene
II. Styrene to 2-Phenyl Ethanol
III. Benzene to *m*- nitro benzaldehyde
(b) Write the synthesis and utility of Diazonium salts. **05**
(c) What do you mean by Rancidity? Explain in detail with example. **05**

- Q.7**
- (a)** Describe the various qualitative tests of phenol. **06**
 - (b)** Write down the structure and uses of these followings: **05**
 - a) DDT b) Saccharin c) Diphenylmethane d) Phenanthrene e) Cresol
 - (c)** Write a short note on Sachse Mohr's theory. **05**
