

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Ph. - SEMESTER-III • EXAMINATION – WINTER-2020**

**Subject Code: BP301TP****Date: 18/02/2021****Subject Name: Pharmaceutical Organic Chemistry II****Time: 02:30PM TO 04:30PM****Total Marks: 54****Instructions:**

1. Attempt any THREE questions from Q-1 to Q-6.
2. Q.7 is compulsory to attempt.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

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|-------------|--|-----------|
| <b>Q.1</b>  | (a) Write a note on friedel craft alkylation and mention its limitation.   | <b>06</b> |
|             | (b) Write a note on electrophilic aromatic substitution with general mechanism and explain any one reaction in detail. | <b>05</b> |
|             | (c) Write structure and uses of DDT and BHC  | <b>05</b> |
| <b>Q.2</b>  | (a) Describe a note on Reimer–Tiemann reaction.  | <b>06</b> |
|             | (b) Justify the following  | <b>05</b> |
|             | a) Phenol is more acidic than alcohol.   |           |
|             | b) Aromatic amines are less basic than aliphatic amines.   |           |
|             | (c) Write structure and use of naphthol and resorcinol.  | <b>05</b> |
| <b>Q.3</b>  | (a) Explain a note on Haworth synthesis of naphthalene   | <b>06</b> |
|             | (b) Write a note on diazotization reaction.  | <b>05</b> |
|             | (c) Write a note Hoffman degradation reaction.   | <b>05</b> |
| <b>Q.4</b>  | (a) Give detail note on conformation of cycloalkanes   | <b>06</b> |
|             | (b) Write a note on reaction of anthracene.  | <b>05</b> |
|             | (c) Write structure and uses of diphenyl methane and phenanthrene .  | <b>05</b> |
| <b>Q.5</b>  | (a) Write a note on preparation of phenol  | <b>06</b> |
|             | (b) Justify the following  | <b>05</b> |
|             | a) Though halides are electron withdrawing group, they are o-p directing group on benzene.                             |           |
|             | b) Benzene gives electrophilic substitution reaction instead of addition reaction.                                     |           |
|             | (c) Detail note on Huckel Rule   | <b>05</b> |
| <b>Q. 6</b> | (a) Write a note on reaction of benzoic acid   | <b>06</b> |
|             | (b) Write a note on reaction of fatty acid.  | <b>05</b> |
|             | (c) Write a note on qualitative test for phenols.  | <b>05</b> |
| <b>Q.7</b>  | (a) Preparation of aromatic amine.   | <b>06</b> |
|             | <b>OR</b>  |           |
|             | (a) Detail note on Cannizzaro reaction.  | <b>06</b> |
|             | <b>OR</b>  |           |
|             | (a) Write a note on Saponification value.  | <b>06</b> |

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