

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 4 EXAMINATION – SUMMER -2019

Subject Code: 240003**Date: 15-05-2019****Subject Name: Pharmaceutical Chemistry - IV****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

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

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|-------------|--|-----------|
| Q.1 | (a) Discuss with reaction mechanism Howarth synthesis of Naphthalene | 06 |
| | (b) How does structure effect the basicity of amines? | 05 |
| | (c) Note on Hofmann degradation of amides. | 05 |
| Q.2 | (a) Note on (1) Biphenyls (2) Allens (3) Spirans. | 06 |
| | (b) Explain nucleophilic addition reaction of carbonyl compounds. | 05 |
| | (c) Explain Hybridization and resonance in benzene. | 05 |
| Q.3 | (a) Discuss the preparation of carboxylic acid. | 06 |
| | (b) Explain Aldol and Crossed aldol condensation. | 05 |
| | (c) Give the methods of preparation of carbonyl compounds. | 05 |
| Q.4 | (a) Explain stereoselective and stereospecific reactions. | 06 |
| | (b) Define (1) Chirality (2) Optical activity (3) Enantionmer (4) Recemic mixture (5) Geometric isomerism. | 05 |
| | (c) What is R and S configuration? Explain it. | 05 |
| Q.5 | (a) Give reaction mechanism of Reamer Tiemann reaction and Kolbe Schmitt reaction. | 06 |
| | (b) Give the general methods for the preparation of aromatic amines. | 05 |
| | (c) Explain mechanism of (i) Cannizaro reaction (ii) Perkin condensation. | 05 |
| Q. 6 | (a) Give the methods for preparation of Phenol | 06 |
| | (b) Explain Friedel crafts reaction. | 05 |
| | (c) Defines arenes. Give methods for preparation of arenes. | 05 |
| Q.7 | (a) Define nanochemistry. Explain its application in pharmacy. | 06 |
| | (b) Give the principle of microwave synthesis. | 05 |
| | (c) How helps Green chemistry to decrease pollution? | 05 |
