

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 4- EXAMINATION –WINTER - 2018

Subject Code: 240003**Date: 10/12/2018****Subject Name: Pharmaceutical Chemistry - IV****Time:02:30 PM TO 05:30 PM****Total Marks: 80****Instructions:**

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

- Q.1** (a) Define following **06**
1. Optical activity 2. Chirality 3. Configuration
4. Racemic mixture 5. Geometrical isomerism 6. Tautomerism
(b) Write an informative note on Stereochemistry of Biphenyl. **05**
(c) Discuss the Haworth synthesis for naphthalene. **05**
- Q.2** (a) Discuss any three-general method of preparation and three reactions of amines. **06**
(b) Discuss Grignard reagents utility in organic chemistry with specific example. **05**
(c) Give any three methods of preparations of Phenols. **05**
- Q.3** (a) Explain the following statements. **06**
1. Ammonia is more basic than aniline.
2. Acetone is less reactive than Acetaldehyde
3. Chloroacetic acid is stronger than acetic acid
(b) Give mechanism for Kolbe reaction. **05**
(c) Explain enantiomer and diastereomer with one common example. **05**
- Q.4** (a) Describe preparation and synthetic utility of diazonium salts. **06**
(b) Give the chemistry of anthracene **05**
(c) Give mechanism for Diels alder reaction **05**
- Q.5** (a) Give the method for preparation of carboxylic acid. **06**
(b) Write a note on Witting reaction. **05**
(c) Give mechanism for Reimer–Tiemann reaction. **05**
- Q.6** (a) How will you convert **06**
1. Phenol to Aspirin 2. Aniline to Phenol 3. Aniline to p-Nitro Aniline
(b) Write a note on Microwave synthesis. **05**
(c) Give any three chemical reactions of **05**
1. Amides 2. Ketone
- Q.7** (a) What is Green chemistry? Discuss any four principles of it. **06**
(b) Give the mechanism of Sulphonation and Chlorination of benzene. **05**
(c) Give a brief discussion on acidity of carboxylic acids. **05**
