

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. - Semester-IV, Examination –SUMMER 2017

Subject code: 240003

Date: 04/05/2017

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 terms. **06**
i) Chiral centre, ii) Configuration, iii) Conformations, iv) Enantiomers
v) Diastereomers, vi) Specific rotation
(b) What is optical activity? How is it measured? **05**
(c) Explain Stereoselective and stereospecific reactions with examples. **05**
- Q.2** (a) Give the general mechanism of electrophilic aromatic substitution in benzene. **06**
(b) Write a note on friedel crafts reaction. **05**
(c) Haworth synthesis of naphthalene **05**
- Q.3** (a) Discuss the mechanism of Hoffmann's degradation of amide. **06**
(b) What is Gabriel pthalimide synthesis? **05**
(c) Write a note on Hinsberg method. **05**
- Q.4** (a) Discuss the mechanism of Reimer Tiemann Reaction and Kolbe Schmitt reaction. **06**
(b) How will you prepare Diazonium salt? **05**
(c) Discuss preparations of carboxylic acid derivatives. **05**
- Q.5** (a) Write a note on aldol condensation **06**
(b) Write various methods of preparations for aldehyde or ketone. **05**
(c) Write a note on Knoevenagel reaction. **05**

Q.6	(a) Give the mechanism of Cannizzaro reaction.	06
	(b) Write a note on pinacol pinacolone rearrangement.	05
	(c) Give the mechanism of witting reaction.	05
Q.7	(a) Explain orientation of nucleophilic aromatic substitution.	06
	(b) Write a short note on Microwave synthesis.	05
	(c) Give brief idea about Nano Chemistry	05
