

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharmacy Semester- IV Examination June 2010

Subject code: 240003

Subject Name: Pharmaceutical Chemistry-IV

Date: 15 / 06 / 2010

Time: 10.30 am – 01.30 pm

Instructions:

Total Marks: 80

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

- Q.1** (a) What is aromaticity? Enlist the Electrophilic aromatic substitution reaction with example. **06**
- (b) What are phenols? How they differ from alcohols? Write a note on Reimer-Tiemann reaction. **05**
- (c) What is resolution? Explain the methods for racemic modification in to enantiomers. **05**
- Q.2** (a) Discuss the preparation and reaction of Diazonium salt. **06**
- (b) How cannizaro reaction is differ from aldol condensation? Write a mechanism for aldol condensation. **05**
- (c) Define Nucleophilic aromatic substitution reaction. Explain the Benzyne Mechanism. **05**
- Q.3** (a) Write various reactions involved in oxidation and reduction of aldehydes and ketones. **06**
- (b) Write a note on Biphenyls and Allens. **05**
- (c) Explain Hell Wolhard Zelinsky reaction with mechanism. **05**
- Q.4** (a) Discuss various preparation of carboxylic acid. **06**
- (b) Write a note on stereoselective and stereospecific reaction with example. **05**
- (c) What is conjugated system? Explain the michael addition reaction **05**
- Q.5** (a) Define conformation. Discuss the stability and potential energy changes of all conformation for n-Butane. **06**
- (b) Discuss the conversion of carboxylic acid to their corresponding chloride, esters and amide derivative. **05**
- (c) What is polynuclear aromatic compound? Discuss the reaction of naphthalene. **05**
- Q. 6** (a) What are arenes? Write a note on Friedel craft alkylation. Discuss the limitation of it. **06**
- (b) Write a note on Hoffmann degradation of amide with mechanism. **05**
- (c) Write a note on Green Chemistry. **05**
- Q.7** (a) Explain the sequences rule to assign conformation. Draw the possible stereoisomer of 2,3-dichlorohexane. **06**
- (b) Write a short note on Microwave synthesis. **05**
- (c) Write the reaction steps for conversion of **05**
- i) Benzoic acid to aniline ii) Nitrobenzene to P-nitro aniline.
