

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph SEM-IV Examination-Nov/Dec.-2011

Subject code: 240003

Date: 25/11/2011

Subject Name: Pharmaceutical Chemistry - IV

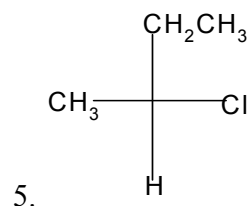
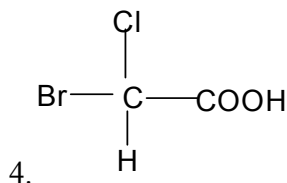
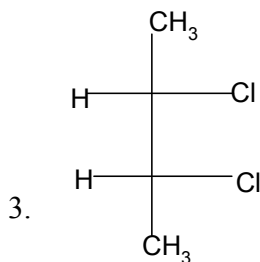
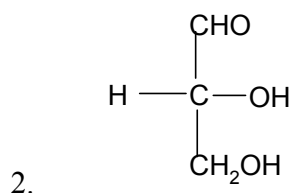
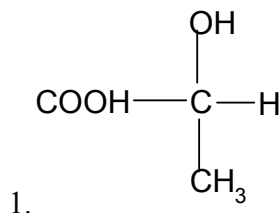
Time: 02.30 am-05.30 pm

Total marks: 80

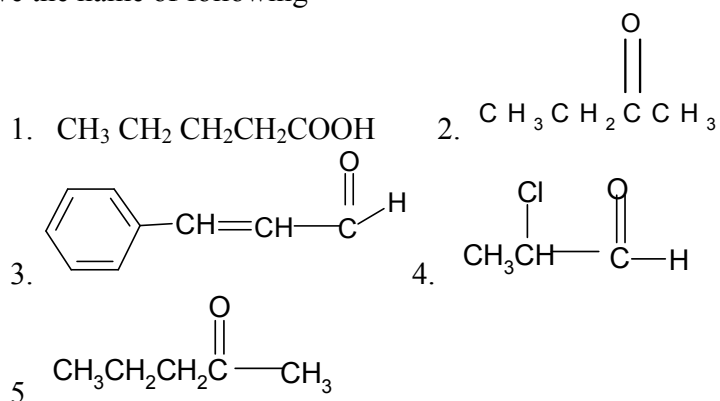
Instructions:

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

- Q.1** (a) Give the mechanism of Sulphonation and Chlorination of benzene **06**
- (b) What is Huckel rule? Write the structure of two compounds that follow this rule. **05**
- (c) How will you distinguish between Benzene and Cyclohexene? **05**
- Q.2** (a) Describe preparation and synthetic utility of diazonium salts. **06**
- (b) Give mechanism of action for Hofmann's Degradation of amides. **05**
- (c) Write a note on stereochemistry of Biphenyls. **05**
- Q.3** (a) How is Phenol prepared? Give four methods? **06**
- (b) Give mechanism for Reimer Tiemann reaction. **05**
- (c) Give mechanism for Kolbe reaction **05**
- Q.4** (a) Comment on the following **06**
1. Why p-nitroaniline is less basic than aniline
 2. Pyridine is aromatic
 3. Staggered conformation is more stable than eclipsed.
- (b) Write a note on Witting reaction **05**
- (c) Assign R and S Configuration **05**



Q.5 (a) Give the name of following **06**



(b) Give the method for preparation of carboxylic acid **05**

(c) Discuss basicity of amines and its preparation. **05**

Q. 6 (a) Write a note on Microwave synthesis and Green chemistry. **06**

(b) Explain enantiomer and diastereomer with one common example **05**

(c) Give structure and IUPAC name of following **05**

1. Anthranilic acid
2. O-Phenylene diamine
3. O-Cresol
4. Sulphosalicylic acid
5. Anisaldehyde

Q.7 (a) Comment on the following **06**

1. Meta nitrobenzoic acid is more acidic than para nitrobenzoic acid
2. Amides are basic
3. Alkylation of nitrobenzene by Friedle craft reaction is difficult.

(b) Define the following **05**

1. Optical activity
2. Chirality
3. Configuration
4. Racemic mixture
5. Geometrical isomerism

(c) Give mechanism for Diels alder reaction **05**
