

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-III May-2012 Examination

Subject code: 230003

Subject Name: Pharmaceutical Chemistry- III

Time: 2:30pm to 5:30pm

Date: 10-05-2012

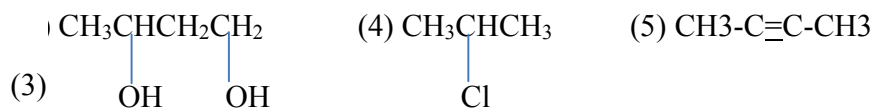
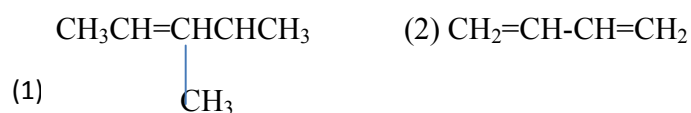
Total Marks: 80

Instructions:

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

- Q.1**
- (a) Method of preparation of Alkanes **06**
 - (b) Classify Intramolecular Forces and Explain Bond dissociation Energy **05**
 - (c) What is bonding and Antibonding orbitals? **05**
- Q.2**
- (a) Give the methods for preparation of Epoxide **06**
 - (b) Write a note on Diels Alder reaction. **05**
 - (c) Write a note on Williamson's synthesis of ether. **05**
- Q.3**
- (a) Give preparation and reaction of alkyl halide **06**
 - (b) Explain the Following **05**
 - Nitrenes and Nitrinium Ions
 - Carbocations with mechanism
 - (C) Outline Difference between SN1 and SN2 reactions **05**
- Q.4**
- (a) Write a note on Markonikov's rule and Ozonolysis **06**
 - (b) Write a note on the following **05**
 - Uses of Glycerol
 - Neighbouring group effects
 - (c) Classify alcohol and write a note on dehydration of alcohol **05**
- Q.5**
- (a) Give general methods for the preparation of Alkyne and Alkene **06**
 - (b) Explain Hyperconjugation and resonance **05**
 - (c) Give structural formula for the following **05**
 - Isobutane
 - Acetylene
 - Ethyl bromide
 - Ethylene glycol
 - Propene
- Q. 6**
- (a) Discuss the mechanism of E2 and E1 reactions of alkyl halide **06**
 - (b) Carbenes as reaction intermediate **05**

(c) Give IUPAC name of the following 05



Q.7 (a) Method of preparation of cycloalkanes. 06

(b) Write a note on the Sigmatropic reactions 05

(c) The empirical formula of the dibasic organic acid is CHO_2 . If its molecular weight is 90, what is its molecular formula? 05
