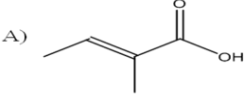
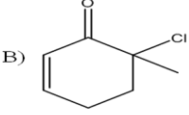


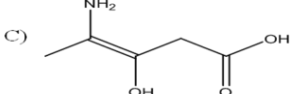
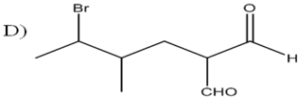
GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 2 EXAMINATION – SUMMER -2019

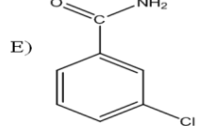
Subject Code: BP202TP**Date: 29-05-2019****Subject Name: Pharmaceutical Organic Chemistry I****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

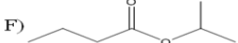
1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Give IUPAC name of followings: **06**
- A) 

B) 

C) 
- D) 

E) 

F) 
- (b) Write all possible isomers of C₄H₈ and name them by IUPAC system. **05**
- (c) Define and classify organic compound. Explain SP³ hybridization of alkane. **05**
- Q.2 (a)** Give the structure and uses of the following **06**
- (1) Chlorobutanol (2) Methyl salicylate (3) Hexamine
 (4) Vanillin (5) Paraldehyde (6) Ethylenediamine
- (b) Describe effect of substituent on basicity of aliphatic amine. Why 2° amine is more basic than 1° and 3° amine in aqueous media? **05**
- (c) Give three methods for synthesis of alkenes. **05**
- Q.3 (a)** Explain reaction mechanism of cannizzaro reaction and perkin condensation. **06**
- (b) Explain acidity of carboxylic acid in brief. What is the impact on acidity of benzoic acid if it was substituted with –OH or –CH₃? **05**
- (c) Mention method of preparation for carboxylic acid. Give any two qualitative tests for identification of carboxylic acid. **05**
- Q.4 (a)** Write Aldol condensation & Cross aldol condensation with reaction mechanism. **06**
- (b) Explain method for synthesis of alkyl halides. **05**
- (c) Describe the factors affecting the E1 and E2 reaction. **05**
- Q.5 (a)** Give general mechanism for nucleophilic addition of carbonyl compounds. **06**
 Mention any three nucleophilic addition reactions of aldehyde or ketone.
- (b) Explain ozonolysis of alkene in detail. **05**
- (c) Describe stability of conjugated dienes. **05**
- Q.6 (a)** Differentiate Markownikoff's addition and Anti-markownikoff's addition to alkene. **06**
- (b) Explain Saytzeff rule with examples. **05**
- (c) What is pyrolysis? Give general reaction of pyrolysis for alkane. **05**
- Q.7 (a)** How will you distinguish 1°, 2° and 3° alcohol? Explain Grignard reaction for synthesis of alcohols. **06**
- (b) Write note on Diel-Alder reaction. **05**
- (c) Write short notes on SN1 reaction in detail. **05**