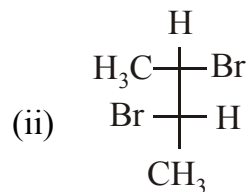
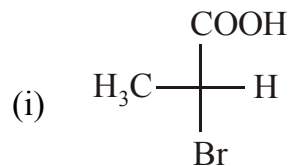


(c) Assign the R and S configuration : 3



### Unit III

5. (a) Write chemical reaction for the following : 3

- (i) Reaction of Acetone with Ethanol
- (ii) Reaction of Acetaldehyde with hydroxyl amine
- (iii) Reaction of Formaldehyde with  $\text{NH}_3$

(b) Compare the relative reactivities of acetone acetaldehyde and formaldehyde.

6

No. of Printed Pages : 06

Roll No. ....

**C-65**

**B. Tech. EXAMINATION, Dec. 2017**

(Third Semester)

(B. Scheme) (Main/Re-appear)

(BT)

BT-209-B

ORGANIC CHEMISTRY

Time : 3 Hours]

[Maximum Marks : 75

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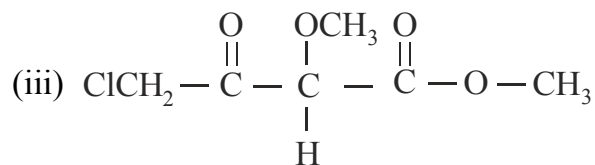
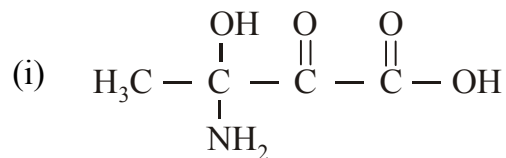
Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

### Unit I

1. (a) Explain the following terms : 6  
(i) Bond Line Notation  
(ii) Elimination reaction.
- (b) Write short notes on the following : 6  
(i) Wanger Meerwin rearrangement  
(ii) Type of substitution reaction.
- (c) Define Hyperconjugatin. How is it helpful in explaining the relative stabilities of alkenes. 3
2. (a) Write IUPAC name of the following compounds : 3



- (b) Write short notes on the following : 6  
(i) Cope's rearrangement  
(ii) Addition reaction
- (c) Differentiate  $\text{SN}_1$  and  $\text{SN}_2$  reactions. 6

### Unit II

3. (a) Define H-bonding. Explain the necessary conditions and types of H-bonding. 6  
(b) Explain the mechanism of acid and base catalysed ring opening of epoxides. 6  
(c) Write a short note on Biological Methylating reagents.' 3
4. (a) Distinguish between Enantiomer and Diastereomers. 6  
(b) Write short notes on following : 6  
(i) Stereochemistry Biphenyls.  
(ii) Geometrical Isomerism.

8. (a) Write short notes of the following : 6  
 (i) Hydroboration  
 (ii) Di-imide.
- (b) Explain the process of solid phase peptide synthesis in detail. 6
- (c) What is Ziegler-Natta catalyst ? What is its utility in Polymer Chemistry ? 3

- (c) Explain the following : 6  
 (i) Aldol condensation  
 (ii) Reformatsky reaction.
6. (a) Write short notes on the following : 6  
 (i) Transesterification  
 (ii) Structure of carbonyl compound.
- (b) Explain the mechanism of acid catalysed hydrolysis of esters. 6
- (c) What do you mean by amonolysis ? Explain taking an example. 3

#### Unit IV

7. (a) Define the following terms : 6  
 (i) Copolymer  
 (ii) Elastomer  
 (iii) Step growth polymerisation.
- (b) Explain the behaviour of LAH as reducing agent. 6
- (c) Write the method of preparation and uses of U-F resin. 3