

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Ph. - SEMESTER-II • EXAMINATION – SUMMER -2018**

**Subject Code: BP202TP**

**Date:22/05/2018**

**Subject Name: PHARMACEUTICAL ORGANIC CHEMISTRY I**

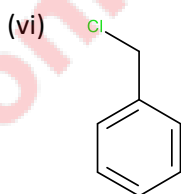
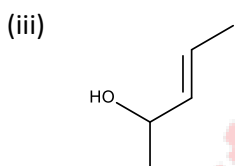
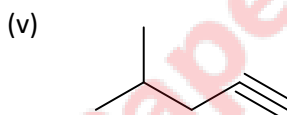
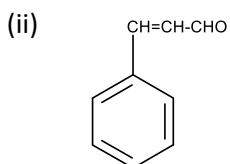
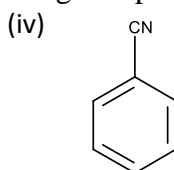
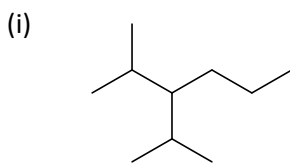
**Time: 10:30 AM TO 01:30 PM**

**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 following compounds. 06**



(b) Write a note on Structural isomerism in organic compounds. 05

(c) Write a note on Markovnikov's orientation. 05

**Q.2 (a) Draw the structure of following compounds. 06**

- (i) Iodoform
- (ii) Chlorobutanol
- (iii) Paraldehyde
- (iv) Ethanolamine
- (v) Acetyl Salicylic acid
- (vi) Oxalic acid

(b) Describe preparation and synthetic utility of Grignard reagent. 05

(c) Write with mechanism Aldol and crossed aldol condensation. 05

- Q.3** (a) Write a note on Walden Inversion with mechanism. **06**  
(b) Discuss factors affecting  $S_N1$  reactions. **05**  
(c) Write methods of preparation of carboxylic acids. **05**
- Q.4** (a) Write a note on free radical reactions of alkanes. **06**  
(b) Explain Electronegativity, Electrophile and Nucleophile. **05**  
(c) Give qualitative tests of alcohols. Give structure and uses of Ethyl alcohol and Glycerol. **05**
- Q.5** (a) Differential E1 and E2 reactions. **06**  
(b) Give qualitative tests of aldehydes. Give structure and uses of Vanillin and formaldehyde. **05**  
(c) Write a note on Cannizzaro and crossed Cannizzaro reaction. **05**
- Q. 6** (a) Give general methods for the preparation of Alkenes. **06**  
(b) Write a note on Hydroboration-Oxidation reaction with mechanism. **05**  
(c) Write a note on Diel-alder reaction with examples. **05**
- Q.7** (a) Comments on following statements. **06**  
(i) Trifluoroacetic acid is less acidic than acetic acid.  
(ii) Conjugated dienes are less stable than isolated dienes.  
(iii) Ammonia is more basic than aniline.  
(b) Write any three reactions of Amines. **05**  
(c) Write nucleophilic acyl substitution reactions of Carboxylic acids **05**

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