

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

Subject Code: BP202TP

Date: 22/05/2018

Subject Name: PHARMACEUTICAL ORGANIC CHEMISTRY I

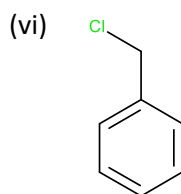
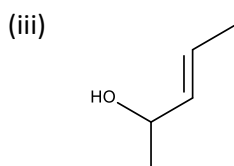
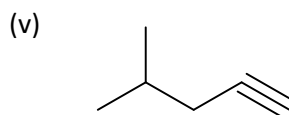
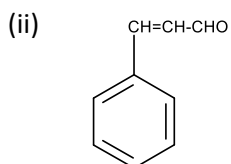
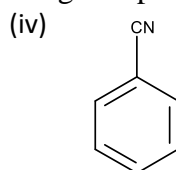
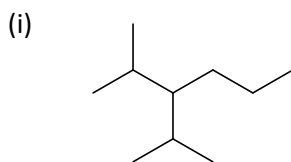
Time: 10:30 AM TO 01:30 PM

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

<b>Q.3</b>	<b>(a)</b> Write a note on Walden Inversion with mechanism.	<b>06</b>
	<b>(b)</b> Discuss factors affecting $S_N1$ reactions.	<b>05</b>
	<b>(c)</b> Write methods of preparation of carboxylic acids.	<b>05</b>
<b>Q.4</b>	<b>(a)</b> Write a note on free radical reactions of alkanes.	<b>06</b>
	<b>(b)</b> Explain Electronegativity, Electrophile and Nucleophile.	<b>05</b>
	<b>(c)</b> Give qualitative tests of alcohols. Give structure and uses of Ethyl alcohol and Glycerol.	<b>05</b>
<b>Q.5</b>	<b>(a)</b> Differential E1 and E2 reactions.	<b>06</b>
	<b>(b)</b> Give qualitative tests of aldehydes. Give structure and uses of Vanillin and formaldehyde.	<b>05</b>
	<b>(c)</b> Write a note on Cannizzaro and crossed Cannizzaro reaction.	<b>05</b>
<b>Q. 6</b>	<b>(a)</b> Give general methods for the preparation of Alkenes.	<b>06</b>
	<b>(b)</b> Write a note on Hydroboration-Oxidation reaction with mechanism.	<b>05</b>
	<b>(c)</b> Write a note on Diel-alder reaction with examples.	<b>05</b>
<b>Q.7</b>	<b>(a)</b> Comments on following statements.	<b>06</b>
	(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>(b)</b> Write any three reactions of Amines.	<b>05</b>
	<b>(c)</b> Write nucleophilic acyl substitution reactions of Carboxylic acids	<b>05</b>

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