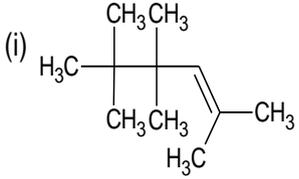
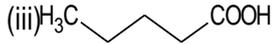


**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV(NEW) EXAMINATION – WINTER 2022****Subject Code:3143509****Date:15-12-2022****Subject Name:Organic Chemistry & Industrial Processes****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	<b>Marks</b>
<b>Q.1 (a)</b> Give IUPAC nomenclature for following compounds :	<b>03</b>
(i)  (ii)  (iii) 	
(b) Explain Nitration with mechanism and enlist various Nitrating agents?	<b>04</b>
(c) Describe chemical reactions of aniline in detail.	<b>07</b>
<b>Q.2 (a)</b> Write types of polymerization.	<b>03</b>
(b) Explain Halogenation reaction with appropriate examples ?	<b>04</b>
(c) Why is phenol acidic ? Give chemical reactions of phenol.	<b>07</b>
<b>OR</b>	
(c) Explain Atom Economy in detail.	<b>07</b>
<b>Q.3 (a)</b> Explain Step growth polymerization in detail.	<b>03</b>
(b) Explain Hydrogenation reaction mechanism with example.	<b>04</b>
(c) Write about Nitrobenzene, its application and environmental impact.	<b>07</b>
<b>OR</b>	
<b>Q.3 (a)</b> Write a note on Aldol condensation.	<b>03</b>
(b) Write about Hydrolysis reaction and give its importance.	<b>04</b>
(c) Why should chemistry be greener? Explain with example different approaches towards green chemistry.	<b>07</b>
<b>Q.4 (a)</b> Give the classification of carbamates.	<b>03</b>
(b) Write brief on fire retardants and its classification.	<b>04</b>
(c) Enlist all the reactions given by Ethanal. Give one reaction of acetone which is not given by ethanol.	<b>07</b>
<b>OR</b>	
<b>Q.4 (a)</b> Explain cross aldol condensation with example.	<b>03</b>
(b) Enlist any five organophosphates.	<b>04</b>
(c) Describe chemical reactions of Propanone.	<b>07</b>
<b>Q.5 (a)</b> Explain sulphonation with mechanism also enlist various sulphonating agents.	<b>03</b>
(b) Explain different properties of carbamates.	<b>04</b>
(c) Enlist twelve principles of Green Chemistry.	<b>07</b>
<b>OR</b>	
<b>Q.5 (a)</b> Explain adverse effects of organophosphates.	<b>03</b>
(b) Explain addition reaction with suitable examples.	<b>04</b>
(c) Write a note on Oxidation reaction explaining its mechanism.	<b>07</b>

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