Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– III EXAMINATION – SUMMER 2015

Subject Code:130404 **Date:04/06/2015**

Subject Name: Organic Chemistry & Unit Process

Time: 02.30pm-05.00pm **Total Marks: 70**

Instructions:

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

Q.1	**(a)**	What is an organic compound? Classify organic reaction and explain addition reaction in detail.	**07**
	(b)	What is metallurgy? Mention general steps of metallurgy with suitable diagrams.	**07**
Q.2	**(a)**	What is unit process? What is it's utility for industrial purpose? Explain sulphonation on the basis of unit process.	**07**
	(b)	Explain metallurgy of iron in detail.	**07**
		OR	
	(b)	Explain diazotization in detail.	**07**
Q.3	**(a)**	What is hybridization? Mention various types of hybridizations with illustrations.	**07**
	(b)	Explain tetra valancy of carbon.	**07**
		OR	
Q.3	**(a)**	How can the mechanism be studied for organic compounds. Explain in detail.	**07**
	(b)	Explain oxidation reduction in detail.	**07**
Q.4	**(a)**	What are carbohydrates? Classify them by explaining the chemistry of glucose.	**07**
	(b)	Explain conversion of aldo hexoses to keto hexoses. Also explain Walden inversion.	**07**
		OR	
Q.4	**(a)**	What is alkylation on basis of unit process? What is amination?	**07**
	(b)	Explain Bismerrization reaction for copper.	**07**
Q.5	**(a)**	What is carboxylic acid? Explain chemistry of acetic acid.	**07**
	(b)	Explain halogenations on the basis of unit process.	**07**
		OR	
Q.5	**(a)**	Explain: 1. Resonance 2. Racemic modification	**07**
	(b)	What is chirality? Explain geometrical isomerism with suitable examples.	**07**

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