Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – VII • EXAMINATION – WINTER 2012

Subject code: 170402 **Date: 31/12/2012**

Subject Name: Agricultural and Food Biotechnology

Time: 10.30 am - 01.00 pm **Total Marks: 70**

Instructions:

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

Q.1	**(a)**	Comment on the basic principle and practice to cleaning and sanitation involved in food industry.	**07**
	(b)	Elaborate on the methods for food processing.	**07**
Q.2	**(a)**	Explain the role of enzymes in foods and food industries.	**07**
	(b)	Explain the different methods of food analysis for determination of food composition.	**07**
		OR	
	(b)	Comment on Functional foods.	**07**
Q.3	**(a)**	Comment on the role of organic farming in the management of agricultural pollution.	**07**
	(b)	Explain the different types of Biofertilizers	**07**
		OR	
Q.3	**(a)**	Justify: Agricultural waste management is facilitated by Biogas technology.	**07**
	(b)	State the advantages and limitations of Biopestiscides.	**07**
Q.4	**(a)**	Explain how genetic engineering of crop plant can be facilitated by *Agrobacterium.*	**07**
	(b)	Elaborate on Biopharming.	**07**
		OR	
Q.4	**(a)**	State the significance of engineering of crop plants for industrial traits.	**07**
Q.4	**(b)**	Elaborate on the industrial applications of marine compounds.	**07**
Q.5	**(a)**	Comment on the biochemical changes caused by microorganisms in food products.	**07**
	(b)	Explain Bioprocessing of meat, vegetables and dairy products.	**07**
		OR	
Q.5	**(a)**	Explain food poisoning and microbial toxins	**07**
	(b)	Explain the methods for food preservation	**07**

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