Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII • EXAMINATION – WINTER • 2014

Subject Code: 170402 **Date: 02-12-2014**

Subject Name: Agricultural and Food Biotechnology

Time: 10:30 am - 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.**

Q.1	**(a)**	Define the term biopharming. Discuss the production of high value proteins and peptides.	**07**
	(b)	What are the significances of marine compounds for industrial application?	**07**
Q.2	**(a)**	What do you mean by organic farming? How agricultural waste management is done?	**07**
	(b)	Describe direct gene transfer method.	**07**
		OR	
	(b)	Define biopestiside. Write the advantages of biopestiside.	**07**
Q.3	**(a)**	What is the microbial growth pattern?	**07**
	(b)	Explain about the biochemical changes caused by microorganisms in food?	**07**
		OR	
Q.3	**(a)**	Describe about food poisoning.	**07**
	(b)	Define food preservation. Discuss the biochemical methods of food preservation.	**07**
Q.4	**(a)**	How bioprocessing of dairy product is done?	**07**
	(b)	Enlist and explain methods for microbial examination of food.	**07**
		OR	
Q.4	**(a)**	Write in brief about enzymes in food industry.	**07**
	(b)	Describe in detail about sampling techniques for food analysis.	**07**
Q.5	**(a)**	Write a brief account on neutraceutics.	**07**
	(b)	What is the basic principle behind food processing?	**07**
		OR	
Q.5	**(a)**	Differentiate between natural sweetener and artificial sweetener.	**07**
	(b)	Explain in brief about mycoprotein production.	**07**

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