Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII • EXAMINATION – SUMMER • 2015

Subject Code: 170402 **Date: 08/05/2015**

Subject Name: Agricultural and Food Biotechnology

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)**	Justify: Transgenic Plants facilitates foreign compounds production of significance.	**07**
	(b)	Explain Biochemical and Neem biopesticides.	**07**
Q.2	**(a)**	Explain any two chemical methods of food preservation and explain their significance.	**07**
	(b)	Comment on irradiated food.	**07**
		OR	
	(b)	Write short note on microbial growth pattern.	**07**
Q.3	**(a)**	Explain how natural and artificial sweeteners can be used as food additives for controlling diseases and deficiencies.	**07**
	(b)	Explain the symptoms of food borne intoxication caused by myotoxins	**07**
		OR	
Q.3	**(a)**	What are neutraceuticals and functional foods? Explain the difference between them.	**10**
	(b)	Explain any two plating technique for examination of microbes in food.	**04**
Q.4	**(a)**	State the role of following enzymes in food industry: 1. Peroxidase enzymes 2. Thiaminase enzymes 3. Ascorbic acid Oxidase enzymes	**07**
	(b)	Highlight on the classic Slow-Growth Storage techniques for plants.	**07**
		OR	
Q.4	**(a)**	Elucidate on Ex-situ conservation of plant genetic resources	**07**
	(b)	Highlight on the different unit operations involved in food processing.	**07**
Q.5	**(a)**	Elaborate on the production of vaccines in transgenic plants.	**07**
	(b)	Highlight the role of Azospirullum, Acetobacter and Frankia as biofertilizers.	**07**
		OR	
Q.5	**(a)**	State the merits and demrits of Liquid Biofertilizers.	**07**
	(b)	Elaborate on the production of antibodies in transgenic plants.	**07**

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