

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**
