

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.E SEM-VII Examination-Nov/Dec.-2011

Subject code: 170402

Date: 22/11/2011

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) Explain the mechanism of Agrobacterium-mediated genetic transformation. **07**
(b) Explain any three direct gene transfer methods **07**
- Q.2** (a) Elaborate on Biopharming. **07**
(b) Discuss on Nitrogen-Fixing Biofertilizers. **07**
- OR**
- (b) Mention the advantages and disadvantages of Biofertilizers **07**
- Q.3** (a) What is Organic Farming and discuss its principle aims. **07**
(b) Describe in detail use of enzymes application in food industry with suitable example. **07**
- OR**
- Q.3** (a) Define: a) Autotroph organism **07**
 b) Autotrophic organism
 c) Heterotrophic organism
(b) Discuss in detail functional food with suitable example. **07**
- Q.4** (a) State the different types of microbial cultures used in food industry **07**
(b) Define sampling technique. Discuss various sampling technique for food analysis. **07**
- OR**
- Q.4** (a) Explain the production of Mycoprotein. **07**
(b) Describe in detail various factors affecting food quality. **07**
- Q.5** (a) What is food processing and comment on its benefits and limitations? **07**
(b) Define the term food preservation. Enlist various methods of preservation and discuss any one in detail. **07**
- OR**
- Q.5** (a) Explain the various methods employed for food processing **07**
(b) Write a note on food poisoning. **07**
