

No. of Printed Pages : 03

Roll No. ....

**CC-803**

**M. Tech. EXAMINATION, Dec. 2017**

(Third Semester)

(Main & Re-appear)

FOOD TECHNOLOGY

FT-605

Food Biotechnology

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(2-39/7) M-CC-803

**P.T.O.**

### Unit I

1. Explain various tools and techniques of genetic engineering involved in the production of plant foods with novel features and quality modifications. **15**
2. Describe the following : **7.5×2=15**
  - (a) Safety of genetically modified food crops
  - (b) Transgenic animals for enhanced food production.

### Unit II

3. Elaborate biotechnological (enzymatic and microbial) routes to flavor production. **15**
4. What is protein engineering ? Discuss the applications of protein engineering in food technology. **15**

### Unit III

5. What are Bacteriocins ? Narrate the role of bacteriocins in food systems as biopreservatives. **15**

6. Enumerate the mode of production and significance of the following in food technology (any *two*) : **7.5×2=15**
  - (a) Biogums
  - (b) Phytoalexins
  - (c) Sweeteners.

### Unit IV

7. Explain various ethical issues concerning the production and use of genetically modified foods. **15**
8. Discuss the effect of biotech foods on the food business of developing and developed countries. **15**