

Exam.Code:0038

Sub. Code: 0989

2071

B.Sc. (Hons.) Biotechnology

Sixth Semester

BIOT- Sem-VI-III-T: Food Bio-Technology

Time allowed: 3 Hours

Max. Marks: 67

**NOTE:** Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:

- a) Give applications of amylases in food industry.
- b) What are main features of Salmonellosis?
- c) How foods can be preserved using biological methods?
- d) What are nutraceuticals? Give examples
- e) What is sampling plan and its significance in food industry? (5x3)

#### UNIT - I

- II. a) Describe extrinsic and intrinsic factors affecting growth of microbes in food.
- b) Discuss two quantitative and two qualitative methods microbial detection in food. (7, 6)
- III. a) How various foods can act as substrate for microbial growth? Explain with suitable examples.
- b) How bacterial toxins can be detected in food? (7,6)

#### UNIT - II

- IV. a) How drying and cold temperature helps in food preservation?
- b) Discuss spoilage and preservation of milk. (7,6)
- V. a) Discuss spoilage defects in wine and meat products.
- b) What is chemical preservation? Enlist various chemicals used in food preservation. (7,6)

#### UNIT - III

- VI. a) What is food adulteration? Enlist common food adulterants and methods of their detection in food.
- b) What are probiotics and prebiotics? Give uses of probiotics. (7,6)

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(2)

- VII. a) Discuss fermentation of soy based products.  
b) Write notes on:-  
    i) Algal SCP  
    ii) Food additives (6,7)

UNIT - IV

- VIII. a) Discuss rapid methods of pathogen detection in food.  
b) Discuss food borne disease caused by *Clostridium botulinum*. (7,6)
- IX. a) Write notes on:-  
    i) Cholera  
    ii) Shigellosis  
b) What are endotoxins and their mechanism of action? (8,5)

x-x-x