5/2023 (Mrsm)

(i) Printed Pages: 3

Roll No.

(ii) Questions : 9

Sub. Code: 0 9 8 9

Exam. Code: 0 0 3 8

B.Sc. (Hons.) Biotechnology 6th Semester

(2053)

### FOOD BIO-TECHNOLOGY

Paper: BIOT-603-T

Time Allowed: Three Hours]

[Maximum Marks: 67

Note: Attempt any five questions in all. Question No. 1 is compulsory. Select one question from each unit.

- 1. (a) Give any two applications of enzymes in food industry.
  - (b) Describe briefly any two chemical methods of food preservation.
  - (c) Write a short note on coloring agents.
  - (d) What is the difference between fortified and biofortified foods?
  - (e) Write a short note on Miso.
  - (f) Describe briefly Shigellosis.

 $2.5 \times 6 = 15$ 

#### UNIT-I

- 2. (a) Describe sampling plan and procedure for microbial analysis.
  - (b) Discuss two quantitative and two qualitative methods for microbial detection in food.
     7,6
- (a) Discuss indirect recommended estimation procedures for enumeration of microbes in food.
  - (b) What factors are responsible for the growth of microbes in food sample?

    7,6

#### UNIT—II

- (a) Discuss principle and procedure for biological methods of food preservation.
  - (b) Discuss the prominent contaminant sources for spoilage of milk products. What are the deciding factors in selection of preservation methods for milk products? 7,6
- 5. (a) Discuss spoilage defects in meat and fish products.
  - (b) Describe contamination and preservation of canned meat and fruits.
    7,6

# UNIT-III

- 6. (a) What is food adulteration? Enlist common food adulterants and methods of their detection in food.
  - (b) Discuss production of sauerkraut.

7,6

- (a) What are probiotics and prebiotics? Give uses of probiotics.
  - (b) Describe Genetically modified crops along with a suitable example.
    6,7

## UNIT-IV

- (a) Discuss rapid methods of pathogen detection in food.
  - (b) What are endotoxins and their mechanism of action? 7,6
- 9. (a) Write notes on:
  - (i) Cholera
  - (ii) Salmonellosis.
  - (b) Write briefly about food borne intoxications along with causes, symptoms and organism by giving a suitable example. 8,5