

(i) Printed Pages : 3 Roll No. ....

(ii) Questions : 9 Sub. Code : 

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**B.Sc. (Hons.) Biotechnology 6<sup>th</sup> Semester  
(2054)**

**FOOD BIO-TECHNOLOGY**

**Paper : BIOT-603-T**

**Time Allowed : Three Hours]**

**[Maximum Marks : 67**

**Note :—** Attempt five questions in all, selecting one question from each Unit. Unit-I is compulsory. All questions carry equal marks except compulsory question.

**UNIT—I**

I. Explain the following in brief :

- (a) History of food biotechnology.
- (b) How water is made unavailable to microorganisms in food ?
- (c) Give list of various methods of food preservation.
- (d) Red and blue milk.
- (e) Fortified and biofortified foods.
- (f) Name two tests for detecting bacterial toxins in food.
- (g) Name two food borne diseases and their causing agents.
- (h) Differences between food borne intoxication and food borne disease.
- (i) Algal single cell proteins.
- (j) Golden rice.

1.5×10=15

## UNIT—II

- II. (a) Discuss intrinsic factors of food affecting growth of microorganisms in the food.
- (b) Discuss various direct enumeration methods for microorganisms in foods.  $7+6=13$
- III. (a) Explain nucleic acid probe method for detection of pathogens in the food.
- (b) Discuss applications of enzymes in food technology.  $7+6=13$

## UNIT—III

- IV. (a) Discuss different methods of food preservation by use of low temperatures.
- (b) Describe contamination and preservation of fish and fish products.  $7+6=13$
- V. (a) Explain in brief contamination and spoilage of fruits.
- (b) Discuss preservation of food by use of food additives.  $7+6=13$

## UNIT—IV

- VI. (a) Define food adulterants. Explain different adulterants and their methods of assay.
- (b) What are flavouring agents? Discuss its different types with suitable examples.  $7+6=13$
- VII. (a) Discuss different vitamins as food additives.
- (b) Discuss in brief production of yoghurt.  $7+6=13$

## UNIT—V

- VIII. (a) Discuss characteristics, habitat, toxin & toxin production and disease of pathogen causing Cholera.
- (b) Explain briefly about food borne intoxication. Discuss about organism and their toxin causing Staphylococcal intoxication.
- 7+6=13
- IX. (a) Explain characteristics, habitat, toxin & toxin production and prevention methods of pathogen causing Botulism.
- (b) Explain the mechanism of action of endotoxins into the cell.
- 7+6=13