

11/12/19 (E)

Exam.Code:0911  
Sub. Code: 6722

1129

**B.E. (Bio-Technology) Seventh Semester  
BIO-702/712: Food Biotechnology**

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following briefly:-

- a) What are intrinsic parameters of food?
- b) What is Salmonellosis?
- c) Classify bacteria based on temperature requirement for its growth.
- d) What are the sources of microorganisms in low-heat-processed meat products?
- e) What is the major difference among aerobic respiration, anaerobic respiration, and fermentation of food nutrients by microorganisms?
- f) Give general characteristics of molds.
- g) What are aflatoxins?
- h) What are antioxidants?
- i) What do you understand by chill injury?
- j) Name different microorganisms used for production of SCP. (10x1)

**UNIT - I**

II. a) Explain how nutrient content and pH of food can affect the growth of microbes.

b) Briefly, list out the contribution made by Robert Koch and Anton Van Leeuwenhoek in food microbiology. (6,4)

III. Give the brief description of following microbial genera associated with food (Do any four):-

- a) Escherichia
- b) Pseudomonas
- c) Saccharomyces
- d) Neurospora
- e) Geotrichum (5x2)

IV. a) Explain various methods used in preservation of food by drying.

b) What are the signs of food spoilage? Give an account on spoilage of cereal and cereal products. (2x5)

P.T.O.



UNIT – II

- V. a) What are the raw materials are used for beer production? List out the important steps carried out for beer production.
- b) Explain the properties required for an industrial organism to be used in SCP production. (6,4)
- VI. a) What are possible food borne diseases associated with toxins? Discuss with specific organisms.
- b) What are the applications of various microbial techniques in food technology? (6,4)
- VII. a) Give an account on food poisoning caused by viruses.
- b) What are the major advantages of HACCP system? (6,4)

x-x-x