

2021

B.E. (Bio-Technology) Seventh Semester

BIO-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 spoilage defects in foods?
- b) What are extrinsic factors?
- c) What is the pH requirement for the growth of microbes?
- d) What is HACCP system?
- e) What is the significance of microbial growth in foods?
- f) Give general characteristics of molds.
- g) What are the common causes of food borne diseases?
- h) What are synchronous cultures?
- i) What do you understand by chill injury?
- j) What is putrefaction?

(10x1)

UNIT - I

- II. a) Give an account on historical scientific developments of food microbiology i.e. after scientific era.
- b) In how many ways bacteria store its energy material and what are they? (7,3)
- III. a) Give the brief description of following microbial genera associated with food (Do any three)
 - i) Aspergillus
 - ii) Pseudomonas
 - iii) Acinetobacter
 - iv) Neurospora(6)
- b) Briefly discuss spoilage of meat products. (4)

P.T.O.

(2)

- IV. a) Give an account on Temperature as an important extrinsic factor that affect the growth of microbes.
- b) Explain about freeze drying and vaccum drying. (2x5)

UNIT – II

- V. a) What are the raw materials used for Beer production?
- b) Explain what are milk based fermented foods? (6,4)
- VI. a) What are possible food borne diseases associated with toxins?
- b) Write an account on listeriosis. (6,4)
- VII. a) What are the applications of various microbial and molecular techniques in food technology?
- b) Write a note on history of SCP. (6,4)

x-x-x