

2123

B. Voc. (Food Processing and Preservation)

Third Semester

FPP-303: Introduction to Food Microbiology

Time allowed: 3 Hours

Max. Marks: 40

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

X-X-X

I. Answer the following:-

- a) Enlist the importance of stress adapted microbes in food
- b) Define specific growth rate
- c) Define sterilization and pasteurization. Mention its importance
- d) Differentiate between sporulation and germination
- e) How water activity contributes for growth of microbes in food items
- f) Mention the health benefits of Wine, beer and coffee.
- g) What is batch fermentation?
- h) Give application of prebiotics and probiotics.

(8x1)

UNIT - I

- II. a) Differentiate between the structure of Gram positive and Gram negative cell wall.
- b) Discuss the various sources of microbes in food.

(2x4)

- III. Discuss the normal microbiological quality of foods and its significance.

(8)

UNIT - II

- IV. Discuss the different types of physical and chemical methods for control of microbes.
- V. What is generation time? Explain the different phases of microbial growth in detail.

(8)

(8)

UNIT - III

- VI. Describe the various parts and functions of a fermenter.
- VII. Write note on:-

(8)

- a) Continuous fermentation
- b) Fed-batch fermentation

(4,4)

P.T.O.

UNIT - IV

- VIII. Describe the various factors responsible for food spoilage. (8)
- IX. a) Briefly discuss the role of indicators of microbial spoilage
b) Explain spoilage bacteria in canned foods and fruit juices (2x4)

x-x-x