

2022  
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) Which prominent microbes can enter into food via air and water?
- b) Give two important features of moulds.
- c) What is turbidostat and its use?
- d) What is sporulation?
- e) Enlist ingredients which can be regarded as prebiotics.
- f) What is batch culture?
- g) What are indicators of microbial food spoilage?
- h) Enlist spoilage organisms in pasteurized foods. (8x1)

**UNIT - I**

- II. a) Discuss structure of cell wall of a Gram positive bacteria.
- b) How culture medium can be classified based on oxygen requirement? (2x4)
- III. a) Explain structure of a prokaryotic cell with diagram.
- b) Discuss predominant bacteria and yeasts present in food. (2x4)

**UNIT - II**

- IV. a) What is sterilization and pasteurization? Give their significance in food industry.
- b) Discuss phases of microbial growth in food. (2x4)
- V. a) Discuss various intrinsic and extrinsic factors affecting growth of microbes in food?
- b) Which mechanical methods can be used to remove microorganisms from food? (2x4)

P.T.O.

(2)

**UNIT - III**

- VI. a) What is surface and submerged fermentation?  
b) Discuss fermented meat and fish products. (2x4)
- VII. a) What is a fermenter? Discuss role of various parts of a fermenter.  
b) What are probiotics? Give their applications. (2x4)

**UNIT - IV**

- VIII. a) What is food spoilage? How microorganisms are responsible for it?  
b) Discuss spoilage of canned foods. (2x4)
- IX. a) Discuss spoilage of fruit juices.  
b) What are various factors involved in spoilage of refrigerated foods? (2x4)

x-x-x