

2122

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. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Answer the following:-

- a) Give two features of Gram positive bacteria.
- b) Enlist predominant bacteria in dairy products.
- c) What is specific growth rate?
- d) What is sterilization?
- e) What is the function of impeller in a fermenter?
- f) What are prebiotics and their use?
- g) What are indicators of microbial food spoilage? Give examples.
- h) Enlist microbes responsible for spoilage of fruit juices.

(8×1)

UNIT - I

II. a) Discuss structure of a prokaryotic cell.

b) What is a culture medium? Discuss its important constituents. (2×4)

III. a) Discuss significance of normal microbiological quality of food.

b) Draw structure of cell wall of Gram negative bacteria. Give its features. (2×4)

UNIT - II

IV. a) How, microorganisms can be removed from food using chemical agents?

b) How water activity, pH and temperature affects microbial growth in food? (2×4)

V. a) What is sporulation? Discuss importance of spores in foods.

b) What is bacterial growth curve? Discuss phases of growth. (2×4)

UNIT - III

VI. a) What is batch and fed batch cultures?

b) Write notes on following fermented foods:-

i) wine

ii) vegetables

(2×4)

P.T.O.

(2)

- VII. What is a fermenter? Enlist its major parts and give their functions. (8)

UNIT - IV

- VIII. What is food spoilage? Discuss factors responsible for food spoilage. (8)

- IX. Explain microbial spoilage of following food:-

- a) Canned foods
- b) Pasteurized foods
- c) Refrigerated foods

(8)

x-x-x