

Diploma Course (Microbial analysis and food safety)
First Semester I
MFS-103: Microbiological Safety of Foods

Max. Marks: 40

Time allowed: 3 hrs.

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

I. Each question carry equal marks (1X8)

- a) Write the names of two thermophilic bacteria?
- b) What is pasteurization?
- c) Write the name of two spoilage causing bacteria in fruit and vegetables?
- d) Define Biopreservation with an example?
- e) Write two bacterial food borne diseases?
- f) What is the pH range for Growth of Molds and Yeast in foods?
- g) What is a Maillard reaction?
- h) What are three major tests in water potability test?

UNIT-1

- II)** a) Explain the Microbial growth of Bacteria in food? (4)
b) Explain structure and function of Flagella? (4)
- III)** a) Write a short note on emerging pathogens of concern? (4)
b) Write down the composition and characteristics of bacterial cell wall? (4)

UNIT-II

- IV)** a) What are the various characteristics of food spoilage. Explain various methods of food Preservation?(2, 6)
- V)** a) Explain various non-enzymatic changes occur in fruits and vegetables and the methods to prevent it? (4)
b) Explain various enzymatic changes occur in fruits and vegetables and the methods to prevent it? (4)

UNIT-III

- VI)** Write a short note on
- a) Bacterial food borne diseases (4)
 - b) Viral food borne diseases(4)
- VII)** What are the steps for Investigation and management of food borne diseases? (8)

UNIT-IV

- IX)** a) Explain the various steps in Sample collection Method? (4)
- b) Write a short note on Droplet Technique? (4)
- X)** a) Write a short note on Serial Dilution Method and Spiral plate Method? (4)
- b) Explain water potability test using MPN Method? (4)