

2053

B.A./B.Sc. (General) Fourth Semester
Industrial Microbiology (Elective)
IMB-401: Food Microbiology

Time allowed: 3 Hours

Max. Marks: 33

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

X-X-X

1. Answer briefly:

- a) Spoilage indicators of meat
- b) Food intoxication
- c) D- Value
- d) Use of HOP plant
- e) Sodium benzoate as food preservative

(1x5=5)

UNIT-I

- 2.a) Explain the production process and microbiology of vinegar. (2x3 ½=7)
- b) Describe the production process of soya sauce.
- 3. a) Discuss the role of microbes in the production of fermented meat products with suitable examples.
- b) Which dairy products are produced with the help of microbes? Explain the production of anyone at the commercial level. (2x3 ½=7)

UNIT-II

- 4.a) Describe the mechanism of preservation using sulfur dioxide, Acetic acid and wood smoke.
- b) For the preservation of dairy products which methods you will prefer? Explain with reasons. (2x3 ½=7)
- 5. Write a note on the following:
 - a) Asepsis and canning methods of preservation
 - b) Pasteurization, its types and applications(2x3 ½=7)

UNIT-III

- 6.a) Define food spoilage. Describe the spoilage of meats and the major causative agents involved in spoilage.
- b) Which human pathogens are commonly found in food? How microbes can act as indicators of human pathogens in food? (2x3 ½=7)
- 7. Describe the following:
 - a) Spoilage indicators of cheese and milk
 - b) Representative spoilage processes of vegetables(2x3 ½=7)

UNIT-IV

- 8.a) Describe quantitative methods for microbial enumeration in the food.
- b) What do you know about Rapid methods and automation applicable in food industries? (2x3 ½=7)
- 9.a) Explain the mechanism of the nucleic acid probe and immunoassay for the detection of pathogens.
- b) Which qualitative methods are helpful in the detection of microbes in food? (2x3 ½=7)

X-X-X