B.Sc. MICROBIOLOGY
FOURTH SEMESTER
FOOD AND DAIRY MICROBIOLOGY
BMB-403
[USE OMR SHEET FOR OBJECTIVE PART]

SET B

Duration: 3 hrs.

Full Marks: 70

(*Objective*)

Time: 30 mins.

Marks: 20

Choose the correct answer from the following:

1×20=20

1. *Bacillus stearothermophilus* is related to:
   a. Holes in cheese
   b. Flat sour spoilage
   c. Blue milk
   d. Red milk

2. Buttermilk like flavor in citrus juices is due to:
   a. Leuconostoc
   b. Acetobacter
   c. Phytophthora
   d. Colletotrichum

3. The optimum grain to milk ratio for Kefir production is:
   a. 1:5
   b. 1:30
   c. 1:80
   d. 1:100

4. *Clostridium botulinum* is:
   a. gram +ve, rods
   b. gram –ve, rods
   c. gram +ve, cocci
   d. gram +ve, aerobic

5. Rhizoplane is the surface related to:
   a. Plant
   b. Leaves
   c. Roots
   d. Soil

6. Drying can be done through:
   a. Evaporation of water from the food
   b. Lowering Aw value
   c. Addition of salt and sugar
   d. All of the above

7. The maximum limit for moisture content for growth of microbes is almost:
   a. 0
   b. >1
   c. <1
   d. =1

8. Predictive microbiology:
   a. Provides mathematical model
   b. Predict microbial behavior in food
   c. Concerned with food safety
   d. All of the above

9. Acetylcholine is blocked by:
   a. Clostridium
   b. Bacillus
   c. Penicillium
   d. None of the above

10. A common method of preservation of milk is:
    a. LTH
    b. HTST
    c. Ultra pasteurization
    d. All of the above

11. Anthracnose is caused by:
    a. Phytophthora
    b. Colletotrichum
    c. Acetobacter
    d. Clostridium

12. Musty earthy flavor is due to the presence of:
    a. Clostridium
    b. Acetobacter
    c. Actinomyctetes
    d. Mucor

13. One common example of skin surface microflora is:
    a. Salmonella
    b. Clostridium
    c. Staphylococcus
    d. Phytophthora

14. Emetic syndrome includes:
    a. Diarrhea
    b. Bloody urine
    c. Vomiting
    d. None of the above

15. Starter culture for tempeh is:
    a. Pediococcus
    b. LAB
    c. Rhizopus stolonifer
    d. None of the above

16. Water belongs to....................of contamination.
    a. Secondary source
    b. Primary source
    c. Tertiary source
    d. None of the above

17. Temperature and time required for Vat pasteurization is:
    a. 62.8 °C for 30 minutes
    b. 62.8 °C for 2 minutes
    c. 52.8 °C for 30 minutes
    d. 71.7 °C for 30 minutes

18. An example of Non-ionizing radiation is:
    a. UV ray
    b. X ray
    c. Γ ray
    d. All of the above

19. Commonly used model in predictive microbiology is/are:
    a. ComBase
    b. Pathogen modelling programme
    c. Datachor
    d. Both a and c

20. ....cheese have buttery taste and mushroom smell.
    a. Cheddar
    b. Camembert
    c. Mozarella
    d. Swiss

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(Descriptive)

[Answer question no.1 & any four (4) from the rest]

1. Explain various intrinsic and extrinsic factors that affect growth and survival of microbes in foods.

   10

2. Describe botulism in details.

   10

3. Write short notes on:
   a) Salt and sugar in food preservation
   b) Probiotics

   5+5=10

4. Write short notes on:
   a) Predictive microbiology
   b) Tempeh

   5+5=10

5. Define starter culture. Explain the production process of Sauerkraut with a neat flowchart.

   2+8=10

6. Discuss briefly the physical methods of food preservation.

   10

7. Define mycotoxins. Write a note on most common mycotoxins which are involved in food borne intoxications.

   2+8=10

8. Discuss briefly the microbial spoilage of milk and milk products.

   10

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