

REV-01
BMB/19/24

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

2023/06

SET
A

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(Objective)

1 × 20 = 20

Choose the correct answer from the following:

1. Anthracnose is caused by:
a. Phytophthora
b. Colletotrichum
c. Acetobacter
d. Clostridium
2. *Bacillus stearothermophilus* is related to:
a. Holes in cheese
b. Flat sour spoilage
c. Blue milk
d. Red milk
3. Musty earthy flavor is due to the presence of:
a. Clostridium
b. Acetobacter
c. Actinomycetes
d. Mucor
4. Buttermilk like flavor in citrus juices is due to:
a. Leuconostoc
b. Acetobacter
c. Phytophthora
d. Colletotrichum
5. One common example of skin surface microflora is:
a. Salmonella
b. Clostridium
c. Staphylococcus
d. Phytophthora
6. The optimum grain to milk ratio for Kefir production is:
a. 1:5
b. 1:30
c. 1:80
d. 1:100
7. Emetic syndrome includes:
a. Diarrhea
b. Bloody urine
c. Vomiting
d. None of the above
8. *Clostridium botulinum* is:
a. gram +ve, rods
b. gram -ve, rods
c. gram +ve, cocci
d. gram +ve, aerobic
9. Starter culture for tempeh is:
a. *Pediococcus*
b. LAB
c. *Rhizopus stolonifer*
d. None of the above
10. Rhizoplane is the surface related to:
a. Plant
b. Leaves
c. Roots
d. Soil

11. Water belongs to.....of contamination.
 - a. Secondary source
 - b. Primary source
 - c. Tertiary source
 - d. None of the above
12. 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
13. 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
14. The maximum limit for moisture content for growth of microbes is almost:
 - a. 0
 - b. >1
 - c. <1
 - d. =1
15. An example of Non-ionizing radiation is:
 - a. UV ray
 - b. X ray
 - c. Γ ray
 - d. All of the above
16. Predictive microbiology:
 - a. Provides mathematical model
 - b. Predict microbial behavior in food
 - c. Concerned with food safety
 - d. All of the above
17. Commonly used model in predictive microbiology is/are:
 - a. ComBase
 - b. Pathogen modelling programme
 - c. Datachor
 - d. Both a and c
18. Acetylcholine is blocked by:
 - a. Clostridium
 - b. Bacillus
 - c. Penicillium
 - d. None of the above
19.cheese have buttery taste and mushroom smell.
 - a. Cheddar
 - b. Camembert
 - c. Mozzarella
 - d. Swiss
20. A common method of preservation of milk is:
 - a. LTH
 - b. HTST
 - c. Ultra pasteurization
 - d. All of the above

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(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

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

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|---|--------|
| 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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