

(6 pages)

Reg. No. :

Code No. : 5551

Sub. Code : ZMBM 41

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2024.

Fourth Semester

Microbiology – Core

FOOD MICROBIOLOGY

(For those who joined in July 2021 – 2022)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. Yeast and mould count determination requires
 - (a) Nutrientagar
 - (b) MacConkeyagar
 - (c) Violet Red Bileagar
 - (d) Acidified potato glucoseagar

6. Which of the following toxin causing botulism is less toxic to human beings?
 - (a) Type A
 - (b) Type B
 - (c) Type C
 - (d) None of these
7. The partial fermentation of green tea results in the formation of _____
 - (a) Yogurt
 - (b) Sauerkraut
 - (c) Kombucha
 - (d) Kefir
8. Where did Kefir originate?
 - (a) America
 - (b) Canada
 - (c) Europe
 - (d) London
9. People recovering from long illness are often advised to include the alga Spirulina in their diet because it
 - (a) makes the food easy to digest
 - (b) is rich in proteins
 - (c) has antibiotic properties
 - (d) restores the intestinal microflora
10. The heat stability of milk is judged by
 - (a) Freezing point
 - (b) COB
 - (c) MBRT
 - (d) Lactometer

2. Suspected colonies of Staphylococcus aureus when grown on Baird-Parker medium shall show _____
 - (a) Protease activity
 - (b) Catalase activity
 - (c) Coagulase activity
 - (d) None of the above
3. Water activity can act as _____
 - (a) An extrinsic factor
 - (b) A processing factor
 - (c) An intrinsic factor determining the likelihood of microbial proliferation
 - (d) All of the above
4. The temperatures used for canning foods ranges from _____
 - (a) 0 – 20°C
 - (b) 20 – 60°C
 - (c) 60 – 100°C
 - (d) 100 – 121°C
5. Salmonellosis involves
 - (a) An enterotoxin and exotoxin
 - (b) An enterotoxin and cytotoxin
 - (c) An exotoxin and cytotoxin
 - (d) A cytotoxin only

PART B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) List out History and Scope of Food Microbiology.
Or
(b) Evaluate the intrinsic factors governing microbial kind and population in a food.
12. (a) Write about Chemical Preservation in Food industry.
Or
(b) Fresh meat spoils very fast, why? Suggest a Method of its preservation.
13. (a) Analyze Food Intoxication due to Bacteria. Give a Notes on Three Bacterial Toxin.
Or
(b) Write about Yersinia and Listeria's involvement in food indigestion in Human.
14. (a) Determine the role of Bacteria in production of Cheese and Dairy Products.
Or
(b) Define Brewer's yeast and write a process of Beer.

15. (a) Justify Microbial Cell as a Food.

Or

(b) Elucidate Food controlling agencies and its regulations.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Enumerate the factors affecting the growth of microorganisms in foods.

Or

(b) Predict the involvement of Microorganisms in Food Industry.

17. (a) Write technical note on sources of contamination and spoilage bacteria in Vegetables and Fruits.

Or

(b) Justify Food additives as a Preservatives.

18. (a) Describe mycotoxigenic Fungi as agents of food poisoning.

Or

(b) Give the symptoms, food involved and preventive measures of the following diseases :

(i) Salmonellosis

(ii) Botulism

(iii) Shigellosis

19. (a) Make detailed account on vinegarfermentation.

Or

(b) Interpret the Genetically Engineered Food with Suitable examples.

20. (a) Discuss production of Single cell proteins from Algae.

Or

(b) Briefly described on the following food regulations.

(i) Food Controlling agencies with regulations,

(ii) Laboratory Testing Procedures.