

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

Fourth Semester

Microbiology – Core

FOOD MICROBIOLOGY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Water activity can act as _____
 - (a) An extrinsic factor
 - (b) A processing factor
 - (c) An intrinsic factor determines the proliferation of microbes
 - (d) All of the above

2. Thermal destruction of microorganisms follows the kinetics of
 - (a) Zero-order
 - (b) First order
 - (c) Second order
 - (d) Fractional order
3. 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
4. An undesirable change in a food that makes it unfit for human consumption is referred to as
 - (a) food decay
 - (b) food spoilage
 - (c) food loss
 - (d) all of the above
5. Which of the following statements are true regarding botulinal toxin?
 - (a) is a neurotoxin
 - (b) water-soluble exotoxin
 - (c) is produced by *Clostridium botulinum*, a gram-positive anaerobic bacteria
 - (d) all of these

6. Shigellosis is also known as
 - (a) Chagas disease
 - (b) Typhoid
 - (c) Schistosomiasis
 - (d) Bacillary dysentery
7. Which of the following microbe is used in the production of blue cheese?
 - (a) *Streptococcus thermophilus*
 - (b) *Lactobacillus bulgaricus*
 - (c) *Penicillium roqueforti*
 - (d) *Rhizopus stolonifer*
8. Shredded cabbage is the starting product for which of the following fermented food?
 - (a) Sauerkraut
 - (b) Pickles
 - (c) Green olives
 - (d) Sausage
9. Which of the following algae can be grown on wastewater?
 - (a) *Spirogyra*
 - (b) *Spirulina*
 - (c) *Volvox*
 - (d) *Chlamydomonas*

10. AGMARK "Act 1937" comes under _____
 - (a) Department of Consumer affairs, Govt of India
 - (b) Directorate of marketing and inspection
 - (c) Department of agriculture and cooperation
 - (d) Department of legal metrology.

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Evaluate the food compositions.
Or
(b) Justify the role of yeast in food processing.
12. (a) Invent canning and food additives.
Or
(b) Reframe contamination.
13. (a) Report fungi toxins.
Or
(b) Contrast shigellosis.

14. (a) List out the microbes involved in vinegar production.

Or

(b) Infer fermented food.

15. (a) Modify microbial cell as food.

Or

(b) Organize food controlling agencies.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain the various microbes present in food contamination.

Or

(b) List out the factor influencing microbial growth.

17. (a) Develop principle of food preservation.

Or

(b) Consider spoilage of cereals and its preservation.

18. (a) Organize the factor influencing the transmission of food borne infection.

Or

(b) Revise transmission of Cholera infection and its pathogenicity.

19. (a) Modify dairy product.

Or

(b) Assess genetically engineered food.

20. (a) Summarize lab testing procedure.

Or

(b) Prepare mushroom cultivation.