

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Fourth Semester

Microbiology – core

FOOD MICROBIOLOGY

(For those who joined in July 2017 – 2022)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. What are the intrinsic factors for the microbial growth?
 - (a) pH
 - (b) oxidation-reduction potential
 - (c) moisture
 - (d) all of these

7. The danger zone range of temperature in food handling is _____.
 - (a) 80-120°F
 - (b) 50-100°F
 - (c) 40-140°F
 - (d) none of these
8. The preservation of food by rapid freezing followed by dehydration under vacuum is _____.
 - (a) Lyophilisation
 - (b) Cold dehydration
 - (c) Cryopreservation
 - (d) Sterilization
9. For which of the following FDA is not at all responsible?
 - (a) Foods
 - (b) Radiation-emitting devices
 - (c) Cosmetics
 - (d) Vehicles
10. What do the Paediatric Rule states?
 - (a) No drug should be tested on children
 - (b) No separate drug for children
 - (c) Include usage of paediatric use of a product
 - (d) Advertise the paediatric usage

2. Water activity can act as
 - (a) intrinsic factor
 - (b) extrinsic factor
 - (c) processing factor
 - (d) all of these
3. Spreading pathogens from one surface to another is called _____.
 - (a) Cross contamination
 - (b) Sulphuring
 - (c) Food preservation
 - (d) Autoclaving
4. An example of physical contaminant is _____.
 - (a) pesticides
 - (b) glass
 - (c) solvents
 - (d) paints
5. A harmful parasite found in raw fish is _____.
 - (a) *Anisakis*
 - (b) *Listeria*
 - (c) *Brucella*
 - (d) none of these
6. _____ is a food borne bacterial pathogen causing gastrointestinal illness.
 - (a) *Bacillus cereus*
 - (b) *Aspergillus* sp.
 - (c) *Fusarium* sp.
 - (d) *Alternata* sp.

SECTION B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) What is the role of fungi in food materials?
Or
(b) Write short notes on concept and scope of food microbiology.
12. (a) Brief about milk contamination and preservation.
Or
(b) Define preservation and write a principles of food preservation.
13. (a) Depict the significance of Salmonella in foods.
Or
(b) Discuss about fungal toxins.
14. (a) Discuss about cheese.
Or
(b) What is genetically engineered foods? And give a two examples.

15. (a) Write about SCP.

Or

(b) Comment on :

(i) HACCP

(ii) ISO

(iii) AGMARK.

SECTION C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Write about factors influencing microbial growth in food.

Or

(b) What are the type of bacteria in food?

17. (a) Write about cereals and vegetables products contamination spoilage and preservation.

Or

(b) What is canning? And why we are adding food additives to food ?

18. (a) Write about food borne infection and write about a three bacterial food pathogens.

Or

(b) Document the toxic roles of *Vibrio* and *Listeria* in foods.

19. (a) Write a essay about fermented beverages.

Or

(b) Write about bread, cheese and viniger.

20. (a) Mention any three foods produced using Microbes with their significance.

Or

(b) Highlight the food quality regulatory agencies in India.