

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2019,

Fourth Semester

Microbiology

FOOD MICROBIOLOGY

(For those who joined in July 2016 and afterwards)

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 intrinsic factor determining the like hood of microbial proliferation
- (b) a processing factor
- (c) an extrinsic factor
- (d) all of the above

2. What are the intrinsic factor's for the microbial growth?

- (a) pH
- (b) moisture
- (c) oxidation-reduction
- (d) all of these

3. All of the following techniques are household preservation technique except?

- (a) Smoking
- (b) Lyophilisation
- (c) Dehydration
- (d) Salting

4. Who is regarded as the father of canning?

- (a) Nicolas Appert
- (b) Louis Pasteur
- (c) John Hall
- (d) Bryan Dokin

5. Which of the following statement's are true regarding staphylococcus food poisoning?

- (a) is an enterotoxin
- (b) causes gastroenteritis
- (c) is produced by S. Aureus
- (d) 'all of these

6. Salmonellosis involves
- (a) an enterotoxin and exotoxin
 - (b) an enterotoxin and cytotoxin
 - (c) an exotoxin and cytotoxin
 - (d) a cytotoxin only

7. Beer may be produced by
- (a) germinating barley
 - (b) fermenting grape
 - (c) fermentation of rice
 - (d) all of these

8. Function of streptococcus during milk fermentation is to
- (a) Produce aerobic environment
 - (b) Produce anaerobic environment
 - (c) Form Lactic acid
 - (d) All of these

9. The technique of SCP is introduced by
- (a) Gregor Mendel
 - (b) Louis Pasteur
 - (c) Professor Scrimshaw
 - (d) Lan Wilmot

10. Which of the following microorganisms have a high vitamin content?
- (a) bacteria
 - (b) yeast
 - (c) alga
 - (d) protozoa

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Write the concept and scope of food microbiology.

Or

- (b) Explain the role of bacteria in food material.

12. (a) Write short notes on principles of food preservation.

Or

- (b) Explain in detail about food additives.

13. (a) Explain in detail about the food borne infections and toxin produced by Brucella and Shigella.

Or

- (b) Write in detail about fungal toxin produced in the food.

14. (a) Write the production of bread and how will preserved.

Or

(b) Explain about the oriental fermented foods.

15. (a) Write down any three food control agencies and its regulation on a food industry.

Or

(b) Write in detail about the microbial cell as food.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Write in detail about the Extrinsic Factor's influencing microbial growth in food.

Or

(b) Explain in detail about fungi and Mold found in food material.

17. (a) Explain in detail about the spoilage of canned foods by Thermophilic spore forming bacteria.

Or

(b) Explain in detail about the spoilage of milk and milk product.

18. (a) Write in detail about the infective and toxic types of non-bacterial intoxication.

Or

(b) Write in detail about the infective and toxic types of Salmonella and Clostridium.

19. (a) Explain in detail about the genetically engineered food.

Or

(b) Explain the production and fermentation and application of dairy product.

20. (a) Write in detail about the cultivation of mushroom.

Or

(b) Write in detail about the plant sanitations in food industry.