

Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, April 2023
Career Related First Degree Programme under CBCSS

Botany And Biotechnology

Elective Course

BB 1661.3 : FOOD AND DAIRY BIOTECHNOLOGY

(2019 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer all questions in one word or sentence.

1. What is food biotechnology?
2. Name two types of fermented foods.
3. What are indicator organisms in food microbiology?
4. Name two direct methods for microbiological examination of foods.
5. What is food spoilage?
6. Name two chemical changes that occur during food spoilage.
7. What are mycotoxins?
8. Name two physical methods of food preservation.

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9. What is osmotic pressure in food preservation?
10. Name a common chemical preservative used in food preservation.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions, Short Answer (Not to Exceed One paragraph)

11. Explain the scope of food biotechnology.
12. What are the culture techniques used to examine food for microbes?
13. What influences the growth of rotting organisms?
14. Discuss about the typical bacteria found in dairy products, such as milk.
15. Describe the dairy biotechnology homogenization process.
16. Explain about the milk packaging techniques.
17. Describe the commercial procedure used to make cheese.
18. What are the guidelines for food preservation?
19. Discuss the physical techniques used to preserve food.
20. Outline the pasteurisation procedure as it relates to dairy biotechnology.
21. Summarize the chemical alterations that take place as food spoils.
22. What causes food to become contaminated?

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. Each question carries 4 marks. (Answer not to exceed 120 words)

23. What are fermented foods, and how are they produced?
24. Outline the direct and immunological approaches to food microbiological analysis.

25. Detail the chemical food preservatives that are employed.
26. Describe the procedures for salt and sugar food preservation.
27. Explain about the bacteria responsible for food rotting in cans.
28. Discuss the many techniques for food preservation.
29. Discuss about food poisoning and intoxications.
30. Describe the guidelines for keeping fermented foods fresh.
31. Evaluate the procedures for determining milk quality.

SECTION – D

(6 × 4 = 24 Marks)

Answer any two questions. Each question carries 15 marks. (Answer not to exceed three pages)

32. Discuss the scope and concept of food biotechnology.
33. Elucidate the factors that impact the development of spoilage microorganisms and the measures to prevent their growth.
34. Evaluate the various techniques of food preservation, along with their respective advantages and disadvantages.
35. Describe the industrial procedure involved in producing cheese and the elements that influence the quality of cheese.

(2 × 15 = 30 Marks)