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Reg. No. :

Name :



Sixth Semester B.Sc. Degree Examination, April 2024
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 a word or one of two sentences.

1. Name a macronutrient in food composition.
2. State the role of proteins in a healthy diet.
3. Name any one immunological method for testing microbial contamination of food.
4. Name a bacteria often involved in the spoilage of canned food.
5. Define rancidity.
6. What causes botulism?
7. Name the most commonly used chemical preservative in pickles and ketchups.
8. How dose salt prevents the growth of food spoilage microorganisms?

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9. Which bacteria turns milk to curd?
10. State a difference between butter and cheese.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Answer not to exceed one paragraph.

11. What is meant by an indicator microorganism?
12. Write some possible sources of food contamination.
13. How does refrigeration helps in preserving food?
14. Differentiate between food contamination and spoilage.
15. List the common physical methods for preservation of food.
16. Define a mycotoxin.
17. Mention the types of spoilage in meat under aerobic conditions
18. What are the major chemical changes occurring in spoiled food?
19. Identify the signs of microbial spoilage of fish.
20. Write briefly on food composition data.
21. What is homogenized milk?
22. Why raw milk is not safe for drinking?

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six** questions. Answer not to exceed $\frac{1}{2}$ page.

23. What are food contaminants? Explain its types and effect on human health.
24. Differentiate between Class I and Class II food preservatives with examples.
25. What are the factors affecting microbial growth in food?
26. Explain any three food-borne diseases including causes and symptoms.
27. How osmotic pressure can be utilised in the preservation of food materials?
28. Explain how food poisoning can be prevented.
29. What is canning? Explain the types of spoilage occurring in canned foods.
30. Give an account on irradiation techniques for food preservation.
31. Write a short note on pasteurization.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two** questions. Answer not to exceed 3 pages.

32. Elaborate on different steps involved in industrial cheese manufacture.
33. Give a detailed account on various techniques for the microbial examination of foods.
34. List the different tests to access quality of milk Explain the principle and procedure behind each method.
35. How preservation helps in prolonging the quality of food? Explain various physical and chemical food preservation techniques.

(2 × 15 = 30 Marks)