

Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, March 2021

Career Related First Degree Programme Under CBCSS

Group 2 (a) – Botany and Biotechnology

BB 1671 – FOOD AND INDUSTRIAL BIOTECHNOLOGY

(2015-2017 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** the questions in a word or **one** or **two** sentences each. Each question carries **1** mark.

1. What is Blue milk?
2. Define Chemostatic cultures.
3. What is Bio transformation?
4. Identify Whey.
5. Name an antifoam agent used in fermentation technology.
6. What is Aflatoxin?
7. Name the organism used for the production of vitamin B₁₂.

8. Define Putrefaction.
9. What is Bubble column bioreactor?
10. What is Product formulation?

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions. Each question carries **2** marks. Answer not to exceed **one** paragraph each.

11. Explain the qualities of a good industrial strain.
12. Explain industrial applications of butanol.
13. Name the organisms used for the production of single cell proteins.
14. What is Yogurt?
15. What is monosodium glutamate?
16. Mention the uses of yeast in food industry.
17. Give note on secondary metabolites.
18. What is dry heat sterilization?
19. What do you mean by food spoilage?
20. Explain HTST pasteurization.
21. Write a note on Supports/Matrix used in enzyme immobilization technology.
22. Explain the role of Clostridium on meat spoilage.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Explain the solid state fermentation.
24. Differentiate between batch fermentation and continuous fermentation.
25. Explain industrial process of cheese making.
26. Give an account on the production of butanol.
27. Give a note on the industrial applications of immobilized cells and enzymes.
28. Explain the different physical and chemical methods for the separation of fermentation products.
29. State the characteristics of ideal production media for fermentation.
30. Write a note on single cell proteins and its production.
31. Explain the methods of food preservation.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two** questions. (not more than **three** pages). Each questions carries **15** marks.

32. Give a detailed note on food borne diseases and intoxications.
33. Write an essay on the industrial production of penicillin.
34. Explain in detail about upstream and downstream processing in industrial biotechnology.
35. Explain the various types of bioreactors and its applications.

(2 × 15 = 30 Marks)