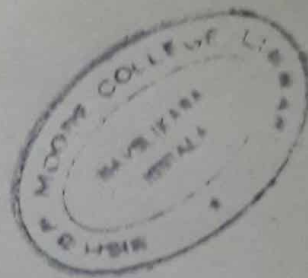


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L – 1865

Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, March 2021

Career Related First Degree Programme under CBCSS

Group 2 (a) - Botany & Biotechnology

BB 1671 : FOOD AND INDUSTRIAL BIOTECHNOLOGY

(2018 Admission Regular)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

1. What is starter culture?
2. Define a chemostatic culture.
3. What is dry heat sterilization?
4. Define probiotics.
5. Write the binomial of Baker's Yeast.
6. What is shelf life period?
7. Name the source for commercial production of Penicillin.
8. Mention any two advantages for a fermented food.

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9. Define pasteurization.
10. What is the function of baffles?

(10 × 1 = 10 Marks)

SECTION – B

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

11. Mention any two food borne diseases and its causative organism.
12. What is fed batch culture?
13. Differentiate between alcoholic and lactic acid fermentation.
14. What is a selective medium?
15. List any four products of fermentation.
16. What are antifoam agents?
17. What is industrial biotechnology?
18. Write the various steps involved in brewing process.
19. What is canning?
20. List the advantages of solid state fermentation.
21. How immobilization of enzymes are helpful in storage?
22. What are the factors affecting fermentation?
23. Explain the upstream processing in fermentation.
24. Write a note on microorganism used for the production of glutamic acid.

25. List the advantages of probiotics.
26. What is product recovery?

(8 × 2 = 16 Marks)

SECTION – C

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

27. What are biopreservatives? Give examples.
28. Give a short note on milk borne disease.
29. What are the features of batch fermentation?
30. Discuss the role of microbes in meat spoilage.
31. Explain the microbial production of amylase.
32. Describe briefly on different types of bioreactors.
33. Mention any four characteristics of an ideal production media.
34. Differentiate between primary and secondary screening of microorganisms.
35. Describe microbial production of butanol.
36. What is the difference between pasteurization and sterilization?
37. Describe the process of fermentation in yogurt production.
38. Write a note on the applications of immobilisation.

(6 × 4 = 24 Marks)

SECTION – D

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

39. Explain the physical and chemical methods for food preservation.
40. Discuss the role of microbes in dairy industry.
41. What are bioreactors? Explain the parts of a bioreactor with suitable diagram.
42. Explain the industrial production of citric acid using microorganism.
43. Describe the production of single cell proteins.
44. Discuss various methods for separation of fermented products in downstream processing.

(2 × 15 = 30 Marks)
