



(Pages : 3)

E – 1813

Reg. No. :

Name :

**Sixth Semester B.Sc. Degree Examination, April 2018
(Career Related First Degree Programme Under CBCSS)
Common for Group – 2(a) Botany and Biotechnology and
2(b) Biotechnology
Elective Course
BV 1662/BB 1662 : FOOD AND DAIRY BIOTECHNOLOGY
(2013 and 2014 Admissions)**

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in **a word** or in **one** or **two** sentences. **Each** question carries **one** mark. **(10×1=10 Marks)**

1. Write about the organism causing Cholera.
2. Mention the functioning of an Autoclave.
3. Explain importance of osmotic shock in food preservation.
4. Expand ELISA.
5. What is shelf life period ?
6. Name a single cell protein.
7. Define fermentation.
8. Name a mycotoxigenic mould.
9. What is pasteurization ?
10. Explain Botulism.

P.T.O.



SECTION - B

Answer **any 8** questions. **Each** question carries **2** marks. Answer **not** to exceed **one** paragraph. **(8×2=16 Marks)**

11. Write a note on enrichment culture.
12. Enlist major reasons for food poisoning.
13. Write about economic importance of Lactic acid bacteria.
14. Mention characters of spoiled cheese.
15. Write a note on indicator organisms.
16. Explain how low temperature can help in short term preservation of food.
17. Explain anaerobic respiration.
18. Write a note on bactericidal compounds.
19. Give an account on starter culture.
20. High moisture content can enhance food spoilage. Why ?
21. Write about causes of spoilage of cereals while under storage.
22. Give an account on microbial toxins.

SECTION - C

Answer **any 6** questions. **Each** question carries **4** marks. Answer **not** to exceed **120** words. **(6×4=24 Marks)**

23. What are the causes for spoilage of canned foods ?
24. Write an account on natural food preservatives.
25. Explain uses of microbes in meat spoilage.
26. Give an account on edible mushrooms and its nutritional aspects.
27. Write about food borne diseases and explain the preventive measures to be adopted.
28. Describe production of streptomycin in industrial scale.



29. Write a note on chemistry of food spoilage.
30. Write about importance of microbes in beverage industry.
31. Explain how microbes can be cultured in a laboratory.

SECTION - D

Answer **any 2** questions. **Each** question carries **15** marks. Answer **not** to exceed **three** pages. **(2×15=30 Marks)**

32. Write about microbial contamination in food. How can we test microbial presence in food ?
 33. Describe physical and chemical methods for preservation of food.
 34. Explain industrial production of organic acids using microorganisms.
 35. Give an account on importance of microbes in fermented food and bakery products.
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Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, March 2020**Career Related First Degree Programme Under CBCSS****Group 2(a) Botany and Biotechnology****BB 1661.3 : FOOD AND DAIRY BIOTECHNOLOGY****(2015 Admission Onwards)**

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. Aflatoxin.
2. Name any two milk-borne pathogens.
3. What is a pure culture?
4. Explain UHT.
5. What is resazurin test?
6. What is mean by food spoilage?
7. Explain Curing.

8. Give a note on Shigella.
9. What is thawing?
10. Name two antibiotics used in food preservation.

(10 × 1 = 10 Marks)

SECTION – B

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

11. What is the role of salt in food preservation?
12. What is the difference between fermentation and putrefaction?
13. Give a note on mycotoxins.
14. What is a_w value?
15. Name two microorganisms used in fermentation technology.
16. What is meant by D-value?
17. Explain vacreation.
18. Give note on radappertization.
19. Explain indicator organisms in food processing.
20. Give a note on *Clostridium botulinum*.
21. What is rancidity?
22. Differentiate between pasteurization and sterilization.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Define microbial spoilage. What are the factors affecting microbial spoilage?
24. Give a note on fermented dairy products.
25. Write a short note on food borne diseases.
26. Briefly explain the kinetics of microbial growth and death.
27. Explain the steps involved in Cheese production.
28. Describe microbiological contamination of foods.
29. Explain the importance and methods used for the preservation of food by radiation.
30. Describe the process of pasteurization.
31. Narrate the usefulness of microbial enzymes in food industry.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Give a detailed note on various methods of food preservation.
33. Explain the types of spoilage occurring in meat.
34. Write an essay on different quality testing methods of milk.
35. What is food poisoning? Explain about major food poisoning causing bacteria.

(2 × 15 = 30 Marks)

Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, April 2022
Career Related First Degree Programme under CBCSS
Group 2 (a) Botany and Biotechnology

Core Course

BB 1661.3 : FOOD AND DAIRY BIOTECHNOLOGY

(2019 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Very short answer type. Maximum two sentences. Answer all .

1. Name two antibiotics used in food preservation?
2. What is Soy Sauce?
3. Write the importance of *Saccharomyces* in food biotechnology.
4. What is cold sterilization?
5. Define rancidity
6. What is curing?
7. Name the organism used for industrial production of citric acid.
8. Comment on *Salmonella*.

9. What is resazurin test?
10. Define freeze drying.

(10 × 1 = 10 Marks)

SECTION – B

Short answer questions. Not exceed in one paragraph. Answer any **eight**.

11. What are aflatoxin?
12. Explain the preparation of yoghurt.
13. What is probiotics?
14. Discuss the benefits of lactic acid bacteria in food processing.
15. Comment on *Shigella*.
16. Classify foods based on the ease of spoilage.
17. What is total aerobic count?
18. What is D value in food processing?
19. Explain vacreation of milk.
20. Explain the preparation of sauerkraut.
21. Define thawing.
22. Differentiate between pasteurization and sterilization.
23. Write notes on radappertization.
24. Explain the principle of refrigeration of food.

25. What is the significance of thermal death time?
26. What is ropiness of milk?

(8 × 2 = 16 Marks)

SECTION – C

Short essay. Not to exceed 120 words. Answer any six.

27. What are chemical preservatives? Give examples.
28. Brief a note on fermented dairy products.
29. What are mycotoxins? What is its importance?
30. Describe the process of pasteurization.
31. Comment on milk borne diseases.
32. Define food spoilage and explain various conditions leading to it.
33. Explain preservation method by food additives.
34. Give notes on beneficial microbes in food processing.
35. Explain spoilage occurring in canned foods.
36. Write a short note on food-borne illness caused by bacteria.
37. Discuss the factors affecting microbial spoilage of food.
38. Explain food preservation by radiation method.

(6 × 4 = 24 Marks)

SECTION - D

Long essay. Answer any **two** questions.

39. Explain food poisoning caused by bacteria.
40. Discuss the steps involved in industrial production of cheese.
41. What is fermentation? Explain various fermented food products.
42. Explain the methods employed for identification of microbial food contamination.
43. Describe various quality testing methods in milk production.
44. Discuss the general techniques used in food preservation.

(2 × 15 = 30 Marks)

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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 1661.3 : FOOD AND DAIRY 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 Koji?
2. Name two chemical preservatives for food.
3. Define shelf life period.
4. Which microorganism used in the production of cheese?
5. Name a mycotoxigenic mould.
6. What is pasteurization?
7. Mention any two micro organisms causing food spoilage.
8. What is stomach flu?
9. List any two advantages for fermented food.
10. Define asepsis.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

Answer any **eight** questions. Each question carries **2** marks.

(Answer not to exceed **one** paragraph)

11. How temperature is useful in short term preservation of food?
12. What is Koumiss?
13. How does nutrient content affect microbial growth in food?
14. What is a starter culture?
15. Explain the preparation of Yoghurt.
16. List any two food borne diseases and its causative organism.
17. What is blanching?
18. Why high moisture content enhance food spoilage?
19. Comment on microbiological indicator organisms.
20. Write the use of lactase in dairy industry.
21. What are the characters of spoiled milk?
22. Mention the function of an autoclave.
23. Discuss the role of organic acids in food preservation.
24. Brief a note on enrichment culture.
25. What is traditional type of food preservation?
26. Define anaerobic respiration.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. Each question carries **4** marks.

(Answer not to exceed **120** words)

27. What are the sources of food contamination?
28. Discuss the role of microbes in meat spoilage.

29. Differentiate food poisoning from food spoilage.
30. What are natural food preservatives?
31. Explain the industrial process of cheese production.
32. What is standard plate count method?
33. Discuss the role of radiations in food preservation.
34. Explain the process of fermentation in buttermilk production.
35. List out the benefits of food biotechnology.
36. What is salting in food preservation?
37. Discuss the importance of mycotoxins in food industry.
38. Mention any four microbes used in fermented food production.

(6 × 4 = 24 Marks)

SECTION – D

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

39. Discuss the importance of enzymes in food and dairy industry with examples.
40. What is canning? Explain the cause and prevention of spoilage in canned food.
41. Discuss the role of microbes in dairy industry.
42. Explain the physical and chemical methods for food preservation.
43. Write an essay on milk borne disease and milk quality testing methods.
44. Explain various measures to determine microbial contamination of foods.

(2 × 15 = 30 Marks)

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 1661.3 – FOOD AND DAIRY BIOTECHNOLOGY

(2015-2017 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in a word or one of two sentences.

1. Name any two different classes of nutrients in food.
2. Name a bacteria involved in fermentation of milk.
3. Define contamination of food materials.
4. Name three different types of food spoilages.
5. Name any two pathogens that can cause a food-borne illness.
6. What is canning?
7. Which kind of radiation is used in food preservation?
8. Name any two dairy product.
9. Who invented pasteurization?
10. Define mycotoxicosis.

(10 × 1 = 10 Marks)

SECTION – B

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

11. Write briefly about the food composition data.
12. Why raw milk is not safe for drinking?
13. Give two examples of natural food preservatives.
14. Write down the principle behind methylene blue test for milk quality.
15. Write down the role of salt in pickling.
16. What are the possible sources of food contamination?
17. Mention the types of spoilage in meat under aerobic conditions.
18. What do you mean by homogenized milk?
19. What is reverse osmosis?
20. Differentiate between food contamination and spoilage.
21. Name four factors affecting the growth of spoilage microorganisms.
22. Write briefly on the physical methods for the preservation of food.

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six** questions. Answer not to exceed half page.

23. Explain the important direct methods for the microbial evaluation of food.
24. Explain the role of refrigeration in preservation of food.
25. Briefly explain the pasteurization process.

26. Write note on the spoilage of meat.
27. Explain how the osmotic pressure can be utilised in the preservation of food materials.
28. Explain briefly about the factors affecting microbial growth in food.
29. Give an account on various chemical food preservatives.
30. Write briefly about the major sources of food contamination.
31. Give the basic steps involved in the industrial cheese manufacture.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Elaborate on various food-borne disease and intoxications.
33. Give a detailed account on the various methods and techniques for the pathogenic microbial examination of foods.
34. Discuss various spoilage conditions in milk and dairy products with its causative organisms. Elaborate on milk borne illnesses.
35. Elaborate the various methods for food preservation. Explain the principles behind each of that.

(2 × 15 = 30 Marks)