

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Food Technology

FTL 4C 06—FOOD PRESERVATION AND QUALITY CONTROL

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer at least eight questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. Define Asepsis.
2. What is Glass transition temperature ?
3. What are BHA and BHT ?
4. Write the defects caused during freezing.
5. What are the quick tests for detection of foam in milk ?
6. What is Bixin ?
7. Expand HACCP.
8. Define Becquerel.
9. What are humectants ?
10. Give examples for firming agents.
11. Define Bacteriofugation.
12. What is food preservation ?

(8 × 3 = 24 marks)

Section B

*Answer at least **five** questions.*

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. Write short notes on colouring agents used in food industry.
14. Write a short note on Codex Alimentarius.
15. What are intentional adulterants ? Write the different methods of adulteration.
16. What are low temperature preservation methods ?
17. Write the principles of food preservation.
18. Differentiate between food safety and food hygiene.
19. Write the significance of HACCP.

(5 × 5 = 25 marks)

Section C

*Answer any **one** question.*

The question carries 11 marks.

20. Explain the different methods of preservation in food.
21. Explain in details of types of hazards in food.

(1 × 11 = 11 marks)

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Food Technology

FTL4B07—FOOD CHEMISTRY AND ANALYTICAL INSTRUMENTATION

(2019 Admission onwards)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A*Answer atleast ten questions.**Each question carries 3 marks.**All questions can be attended.**Overall ceiling 30.*

1. What is Lambert's Law ?
2. What are glycerides ?
3. Differentiate aldose and ketose sugar.
4. What are emulsifiers ? Give an example.
5. What is a cofactor ?
6. What is PUFA ? Give an example.
7. What is TLC ?
8. What is zwitterion ?
9. Enlist type of paper chromatography.
10. What are the structures of proteins ?
11. Enlist major vitamins with antioxidant properties.
12. What are flavonoids ?
13. What is syneresis ?
14. What is a colorimeter ?
15. What are the factors affecting enzyme activity ?

(10 × 3 = 30 marks)

Turn over

Section B

*Answer atleast **five** questions.*

Each question carries 6 marks.

All questions can be attended.

Overall ceiling 30.

16. Write a note on monosaccharide structure and reactions.
17. Write in brief the factors affecting denaturation of protein.
18. Explain in detail the role of food lipids in flavour.
19. Explain in details the structure and physical properties of water.
20. Sketch a diagram and explain parts of a spectrophotometer.
21. Write a note on GCMS.
22. What is fluorescence ? Explain principle and application of flourimetry.
23. Explain briefly about photo synthetic pigments with examples.

(5 × 6 = 30 marks)

Section C

*Answer any **two** questions.*

Each question carries 10 marks.

24. What are enzymes ? Explain classification and action of enzymes.
25. Explain the classification of lipids, and write in details the refining of fats and oil.
26. Explain in detail about GC and its application in food analysis.
27. Write in details the various method of starch modification and application of modified starch.

(2 × 10 = 20 marks)

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Food Technology

FTL4B07—FOOD CHEMISTRY AND ANALYTICAL INSTRUMENTATION

(2017—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

I. Objective type (All questions are *compulsory*) :

State whether true or false :

- 1 UV is a column in HPLC.
- 2 Oleic acid is a unsaturated fatty acid.

Match the following :

- 3 Sucrose – Monosaccharide.
- 4 Glucose – Polysaccharide.
- 5 Cellulose – Disaccharide.

Answer in a single or two words :

- 6 The linkage between two amino acids in a protein.
- 7 Give an example of flavanoid.

Fill in the blanks :

- 8 _____ is an example for oil in water emulsion.
- 9 Enzymatic browning in fruits is due to the action of the enzyme _____.
- 10 _____ is mobile phase in GC.

(10 × 1 = 10 marks)

II. Short Answer type questions (Answer any *five* questions) :

- 11 Define saponification value of an oil.
- 12 Why sucrose is non-reducing sugar ?
- 13 Differentiate between Free and Bound water.

Turn over

- 14 Explain enzyme Specificity.
- 15 Describe denaturation of protein.
- 16 Explain the importance of Rf value in planar chromatography.
- 17 Describe emulsion and give an example.

(5 × 2 = 10 marks)

III. Short Essay questions (Answer any *six* questions) :

- 18 Write briefly about Carotenoids.
- 19 Write short notes on enzyme classification.
- 20 Name the methods for moisture determination and explain one method.
- 21 Write a short note on classification of Lipids.
- 22 Explain one reaction useful for identification of sugars
- 23 Write a short on the factors effecting the enzyme activity
- 24 Describe the changes in proteins during cooking.
- 25 Describe in detail about Ion exchange Chromatography.

(6 × 5 = 30 marks)

IV. Essay Questions (Answer any *two* questions) :

- 26 Explain various methods useful for the determination of molecular weights of proteins.
- 27 Explain in detail about emulsifying agents.
- 28 Write the effect of processing and storage on chlorophyll pigments in foods.
- 29 Write in detail about HPLC.

(2 × 15 = 30 marks)