

C 41211

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Name.....

Reg. No.....

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2023**

Food Technology

FTL 4B 07—FOOD CHEMISTRY AND ANALYTICAL INSTRUMENTATION

(2019 Admission onwards)

Time : Two Hours and a Half

Maximum : 80 Marks

Part A*Each question carries 2 marks.**Ceiling 25 marks.*

1. Name any *two* structural polysaccharides.
2. Give any *two* examples for acidic amino acids.
3. What is meant by feedback inhibition ?
4. How will you differentiate oils from fats ?
5. Why are vitamins essential to maintain good health ?
6. What is difference between Beer's law and Lambert law ?
7. What are the four types of colloid ?
8. What are the three main components of a spectrophotometer ?
9. Write the principle of chromatography ?
10. Differentiate oxyhaemoglobin from carboxyhaemoglobin.
11. What are emulsions ? Name an emulsion in which water is a dispersed phase.
12. Differentiate between ascending and descending modes of paper chromatography.
13. What are nutraceuticals and functional foods ?
14. Write the applications of calorimetry in food industry.
15. Brief about flavonoids and give their role in humans.

Turn over

Part B

Each question carries 5 marks.

Ceiling 35 marks.

16. Explain the various chemical, bonds involved in maintaining protein structure.
17. Give a brief account on enzyme specificity.
18. What are fats ? Give any *three* chemical properties.
19. Classify polysaccharides with suitable examples.
20. Write the structure and functions of myoglobin.
21. How will you determine the moisture content from the food sample ? Explain with suitable scientific method.
22. Discuss paper chromatography and its applications in food industry.
23. Write principle, methodology and applications of UV spectrophotometer.

Part C

*Answer any **two** questions.*

24. With suitable example, classify the fatty acids based on their structures.
25. What are enzymes ? Describe their classification and nomenclature.
26. Discuss the classification of carbohydrates with suitable examples.
27. Write the principle, methodology and applications of HPLC.

(2 × 10 = 20 marks)