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# DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2023

Semester: IV

357CH42 CHEMISTRY OF FOODS

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

- Outline the quality attributes of food. (8 Marks)
  - Elaborate any six safety attributes of food. (6 Marks)
  - Discuss any six key components and steps involved in food quality control. (6 Marks)
- Illustrate the Structure of Monosaccharides. (6 Marks)
  - Outline any six Properties of Monosaccharides. (5 Marks)
  - Illustrate the Formation of Osazone. (4 Marks)
  - Discuss the diseases linked with over consumption of carbohydrates. (5 Marks)
- Illustrate the Chemical Properties of fats and oils. (10 Marks)
  - Elaborate on the types of Rancidity. (7 Marks)
  - Outline the Properties of waxes. (3 Marks)
- Give a note on amino acids. (6 Marks)
  - Define Chirality. (4 Marks)
  - Discuss on the Classification of amino acids. (10 Marks)
- Elaborate on the methods for determining moisture content. (10 Marks)
  - Explain any four roles of water in foods. (5 Marks)
  - Explain in details the health benefits of Polyphenols. (5 Marks)
- Give a detailed note on phenolic aromatic acids and their examples. (8 Marks)
  - Elaborate on the positive effects of polyphenols. (6 Marks)
  - Elaborate on the negative effects of polyphenols. (6 Marks)
- Elaborate protein denaturation. (5 Marks)
  - Discuss the Consequences of Protein Denaturation. (5 Marks)

c) Outline the negative and positive effects of reactions on the quality and safety of food.

**(10 Marks)**