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**DMI-ST. EUGENE UNIVERSITY****ZAMBIA****DEGREE EXAMINATION – DECEMBER 2024****Semester: IV****357CH42 CHEMISTRY OF FOODS****Time: 3:00 Hours****Max. Marks: 100****Answer any FIVE Questions (5 x 20 = 100 Marks)**

1. a) Elaborate Protein denaturation. **(5 Marks)**
b) Illustrate the Consequences of Protein Denaturation. **(5 Marks)**
c) Elaborate the effect of reactions on the quality and safety of foods. **(10 Marks)**
2. a) Discuss the chemical properties of carbohydrates. **(10 Marks)**
b) Illustrate the Formation of Osazone. **(5 Marks)**
c) Give a short note of the classification of disaccharides. **(5 Marks)**
3. a) Elaborate in brief on importance of lipids. **(5 Marks)**
b) Give a brief note on the classification of lipids. **(8 Marks)**
c) Elaborate the physical properties of fat and oils. **(7 Marks)**
4. a) Given a note on amino acids and its structure. **(6 Marks)**
b) Outline Chirality. **(4 Marks)**
c) Elaborate on zwitter ions. **(5 Marks)**
d) Elaborate protein and their biological importance. **(5 Marks)**
5. a) Methods for determining moisture content. **(8 Marks)**
b) Discuss the role of water in food. **(8 Marks)**
c) Outline on polyphenols. **(4 Marks)**
6. a) Elaborate the role of chemist in food Safety. **(10 Marks)**
b) Discuss the role of food chemists in ensuring food safety within the food industry.

(10 Marks)

7. a) Elaborate the negative effects of polyphenols. **(10 Marks)**
- b) Elaborate on artificial sweeteners and examples. **(10 Marks)**