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**DMI-ST. EUGENE UNIVERSITY
DEGREE EXAMINATION – DECEMBER – 2022**

SEM: IV

357CH42 CHEMISTRY OF FOODS

Time: 3 Hours

Max. Marks: 100

Answer any Five questions (5 x 20 = 100 Marks)

1. a) Outline the four effects of enzyme action on food items. **(7 Marks)**
b) Outline the biological changes that affect food. **(7 Marks)**
c) Define i. serviceability, ii.) Deterioration iii.) food quality **(6 Marks)**
2. a) Outline any four-chemical reaction of simple sugars. **(8 Marks)**
b) Describe the digestion and absorption of carbohydrates. **(6 Marks)**
c) Line the classification of carbohydrates with suitable examples. **(6 Marks)**
3. a) List out any four importance of lipids. **(5 Marks)**
b) Give a short note on the classification of fatty acids. **(5 Marks)**
c) Write note on phospholipids. **(5 Marks)**
d) Write a short note on bile acids and its types. **(5 Marks)**
4. a) Give a short note on amino acids. **(6 Marks)**
b) Draw a structure of an amino acids. **(8 Marks)**
c) Give a short Amphoteric behavior. **(6 Marks)**
5. a) Elaborate why water is essential for life. **(7 Marks)**
b) Give a detail account on water activity. **(5 Marks)**
c) Outline the different forms of water. **(8 Marks)**
6. a) List and explain any six causes of food deterioration. **(7 Marks)**
b) Give a detail note on the three types of chemical deterioration of food. **(6 Marks)**
c) Outline the duties and responsibilities of a food chemist **(7 Marks)**

7. a) Draw a straight chain of a typical monosaccharide(Glucose). **(5 Marks)**
- b) Draw the open chain and ring structure of maltose. **(5 Marks)**
- c) Outline the importance of carbohydrates. **(10 Marks)**