

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Vocation - SEMESTER - I EXAMINATION - SUMMER 2025

Subject Code: BV01009021

Date: 23-05-2025

Subject Name: Food Chemistry

Time:02:30 PM TO 04:30 PM

Total Marks: 50

Instructions

- 1. Attempt all questions.**
- 2. Make Suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

	Marks
Q.1 (a) Define water activity. How does it influence the shelf life of food?	05
(b) Explain the different types of water present in food systems and their roles.	05
Q.2 (a) Describe the structure of water and ice and explain how it affects food quality.	05
(b) Discuss the importance of water in food processing and preservation.	05
OR	
(b) Describe the properties of monosaccharides and disaccharides in foods.	05
Q.3 (a) Explain difference between monosaccharides and Disaccharides with example	05
(b) What is invert sugar? How is it prepared and what are its applications in food products?	05
OR	
(a) Classify lipids and explain their importance in foods.	05
(b) Discuss the functional and nutritional roles of carbohydrates in food systems.	05
Q.4 (a) Classify proteins based on their structure.	05
(b) Write chemical properties of lipids.	05
OR	
(a) What is protein denaturation? Describe factors that cause it and its impact on food.	05
(b) Describe the important properties of proteins used in food processing.	05
Q.5 (a) Explain the physical properties of lipids.	05
(b) Explain the difference between Fats and Oil.	05
OR	
(a) Give the classification of carbohydrate in details with example	05
(b) Enlist the structure of protein and explain anyone.	05
