Registration Number:

Date & session: 8-12-2022 ( 1pm)

**ST JOSEPH’S UNIVERSITY, BENGALURU -27**

**M.Sc (FOOD SCIENCE AND TECHNOLOGY) – I SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2022**

**(Examination conducted in December 2022)**

**FST 1322 – FOOD CHEMISTRY**

**Time: 2 Hours Max Marks: 50**

**This paper contains 1 printed page and FOUR parts**

**I. Answer any FOUR of the following 3x4=12**

1. Define Colloids. Give some examples of Food colloids.

2. What are Oligosaccharides and their Applications in Food?

3. Define and Classify Fatty acids.

4. Differentiate Fibrous and Globular Proteins with examples.

5. Write the Michaelis- Menten equation. What is the significance of Km?

6. How is Wax different from Neutral lipid?

**II. Answer any TWO of the following 5x2=10**

7. Give details on the Triple point and Phase Diagram of Water.

8. Write notes on Lipoproteins.

9. Elaborate on different levels of Protein Structural Folding.

**III. Answer any TWO of the following 10x2=20**

10. What are Carbohydrates? Elaborate on five Carbohydrate transforming Enzymes.

11. Classify Lipids and describe different Fat Numbers used for analysis of fats and oils.

12. Discuss in detail the Classification and Physical properties of Amino acids.

**IV. Answer the following 8x1=8**

13. A chemical reaction converts liquid oil to solid fat in presence of a gas and metal catalyst.

a) Identify the Chemical reaction and describe the reaction in detail. 5M

b) What are the Catalysts used and the required gas? 2M

c) Give an Example. 1M