Registration Number:

Date & session:

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

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

**SEMESTER EXAMINATION: OCTOBER 2023**

**(Examination conducted in November /December 2023)**

**FST 1322: FOOD CHEMISTRY**

**(For current batch students only)**

**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 the Triple Point of water and mark its location in the Phase Diagram.

2. Differentiate between High-methoxyl pectin and Low-methoxyl pectin.

3. What are Amino acids? Draw the structure of an amino acid and label it.

4. Write a note on the Enzymatic Browning.

5. Define and Classify Vitamins.

6. What are the Enzyme-Substrate binding Models?

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

7. Give details on the Lipid Classification based on composition.

8. Discuss the Functional properties of Proteins in foods.

9. Write notes on the Enzyme Nomenclature and Classification.

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

10. What is Rancidity? Describe its Types and the associated Chemical Reactions.

11. What are Proteins? Discuss in detail the Classification of Proteins.

12. Discuss in detail the application of Enzymes in Food Industries.

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

13. Direct slow heating of concentrated Table Sugar solution (4:1) leads to characteristic Colour and Flavour development. Describe the Reaction involved and the Products obtained.