

**VIT**

Vellore Institute of Technology

(Deemed to be University under section 3 of U.G. Act, 1956)

School of Bio Sciences and Technology

Winter Semester 2023- 2024

Continuous Assessment Test – II

Programme Name & Branch B Tech Biotechnology

Course Name & code: **Food Process Engineering & BBIT319L****Class Number : VL2023240502575****Slot : D1+TD1**

Faculty Name: Prof. Dr Suneetha Vuppu

Exam Duration: 90 Min.

Maximum Marks: 50

General instruction(s):Please write all the answers with neat labelled diagrams and explain calculations in detail

Q.No.	Question	Max Marks	CO	BL
1.	Evaluate the microbial survival curves in ready to eat foods with response of microorganisms to a particular lethal factor in food process engineering?	10	3	3
2.	The flow behavior index of tomato sauce containing 21% solids is 11.6 and $9.0 \text{ Pa} \cdot \text{s}^n$, at 40°C and 82°C respectively. Calculate the flow behavior index at 50°C ?	10	2	4
3.	Identify the food processing technique that involves briefly immersing food products in boiling water or steam, followed by rapid cooling in ice water and justify the steps with neat labelled diagram?	10	4	5
4.	a) Which is biologically prepared from the Mucor strain, is used as a milk coagulant in the preparation of cheese? b) Discuss and comment on the steps involved in frying typically between 350°F to 400°F (177°C to 204°C)?	$2 \times 5 = 10$	2	3
5.	a) Compare the measurements of rheology and viscosity properties in honey and soya sauce with illustrative calculations? b) Justify and describe the preservation method that involves immersing food products in an acidic solution, typically vinegar or brine (saltwater), to create an environment inhospitable to spoilage microorganisms?	$2 \times 5 = 10$	5	4

ALL THE BEST

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