

**VIT**Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

REG.NO.:

SCHOOL OF BIOSCIENCES AND TECHNOLOGY
CONTINUOUS ASSESSMENT TEST -I
WINTERSEMESTER 2025-2026

Programme Name & Branch : MSc Integrated Biotechnology
Course Code and Course Name : TBIT305L & Downstream Processing
Slot(s) : A2 + TA2
Faculty Name(s) : M. Anbalagan
Class Number(s) : VL2025260503477
Date of Examination : 27th Jan 2026 14:00 to 15:30
Exam Duration : 90 minutes **Maximum Marks:50**

General instruction(s):

- Answer All Questions
- CO – Course Outcome; BL – Blooms Taxonomy Level (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)

Q.No	Question	M	CO	BL
1.	Explain a) Chiral carbon b) plane polarized light c) Absorption maximum and d) Enzyme activity	10	CO1	BL2
2.	What are the strategies followed in purification of a protein of interest explain with example and typical results and graphs.	10	CO1	BL1
3.	a) An enzyme converts substrate with absorption maximum 350 nm to product; based on the below given data which sample you would buy? A. 20 µl gives Abs 0.159 (vial contains 500ul) B. 35 µl gives Abs 0.259 (vial contains 350ul) C. 25 ul gives Abs 0.359 (vial contains 700ul) D. 15 µl gives Abs 0.100 (vial contains 350ul)	5	CO2	BL3
	b) Write a short notes on enzymes used to lyse different cell types.	5		
4.	Describe indirect enzymatic assay with example and diagram	10	CO2	BL2
5.	Explain multi-chamber bowl centrifuge with neat diagram and add a note on application	10	CO3	BL1
