

REG. NO.: 250NE0001



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

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SCHOOL OF ADVANCED SCIENCES
CONTINUOUS ASSESSMENT TEST - I
WINTER SEMESTER 2025-2026

SLOT: E1+TE1

Programme Name & Branch : B. Tech. & Mechanical Engineering (SMEC)
Course Code and Course Name : BACHY109 - Applied Chemistry for Engineers
Faculty Name(s) : Dr. Pundlik Rambhau Bhagat, Dr. Rajagopal D,
Dr. U. Vijayalakshmi, Dr. Ganesh Babu S,
Dr. Amit Kumar Tiwari
Class Number(s) : VL2025260504806, VL2025260504811,
VL2025260504822, VL2025260504839,
VL2025260504962
Date of Examination : 31-01-2026 **09:30 to 11:00 AM**
Exam Duration : 90 minutes **Maximum Marks: 50**

General instruction(s):

- Answer All Questions
- M - Max mark; CO - Course Outcome; BL - Blooms Taxonomy Level
(1 - Remember, 2 - Understand, 3 - Apply, 4 - Analyze, 5 - Evaluate, 6 - Create)
- Course Outcomes:
CO-3 Illustrate mechanisms of corrosion and surface protection techniques

Q. No.	Question	M	CO	BL
1.	Give an account on pitting corrosion (any 2 methods) and passivity of base metal.	10	3	1
2.	What is oxidation corrosion? Identify possible types of metal oxides formed when, metal is exposed to atmospheric conditions? How does it influence further on the stability of base metal?	10	3	2
3.	Explain the technique with diagram and chemical equation of depositing silica by chemical vapour deposition method.	10	3	2
4.	Explain the method with appropriate diagrams of coating base metal by anodic coating and cathodic coating.	10	3	2
5.	(a) Discuss on concentration cell corrosion. (b) Elaborate on protecting base metal with nickel without using electricity.	5+5	3	2
