



VIT

Vellore Institute of Technology

SLOT: F2+TF2

**SCHOOL OF CIVIL ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
FALL SEMESTER 2026-2027**

Programme Name & Branch : B.Tech Civil Engineering
Course Code and Course Name : BACLE104, Waste Management
Faculty Name(s) : Dr.Kavitha M S
Class Number(s) : VL2026270101394
Date of Examination : 14.08.2026
Exam Duration : 90 minutes
Maximum Marks: 50

General instruction(s):

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

Course Outcomes:

1. Understand the sources, impacts and challenges involved in waste management.
2. Identify sources and execute suitable methods of collection, transportation and disposal of Solid Waste

Q. No	Question	M	CO	BL
1	Discuss the major sources and types of municipal solid waste, its physical and chemical characteristics, and the importance of these properties in selecting suitable collection, treatment, recycling, energy-recovery and disposal methods.	10	1	2
2	Explain in detail the concept of the linear economy and compare it with the circular economy.	10	1	3
3	Discuss the significance of SDG-12 (Responsible Consumption and Production). Explain its major targets and examine how to reduce resource consumption, food waste, plastic pollution and e-waste.	10	1	3
4	Explain the design and operation of a bioreactor landfill with leachate recirculation, using a labelled diagram.	10	2	3
5	Explain the incineration of municipal solid waste. Discuss its working principle, major operating conditions, types of incinerators used, energy recovery, and the advantages and limitations of the process.	10	2	3
