



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

SLOT: B2 + TB2

REG. NO.:

SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST - II
FALL SEMESTER 2025-2026

Programme Name & Branch : B Tech, Mechanical Engineering
Course Code : BMEE411L
Course Name : Society 5.0
Faculty Name(s) : JOSE S
Class Number(s) : VL2025260102341
Date of Examination : 06/10/2025
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 - Analyse, 5 - Evaluate, 6 - Create)
- Course Outcome Statements:

CO 2: Demonstrate the importance of citizen oriented sustainable and smart cities to Society 5.0.

CO 3: Examine the impact of technological advancement (from IoT to IoH) on Society 5.0 to attain happiness.

CO 4: Apply the methodologies to solve the societal problems through industry and academia collaboration.

Q. No	Question	M	CO	BL
1.	A gated community has 100 houses, 3 business establishments and two common amenities. Work out a seven layered security model to record the consumption of electricity remotely for billing.	10	4	4
2.	Design an operation theatre using smart technologies with a focus on thermal comfort, human factors and indoor environment quality	10	4	3
3.	Discuss the ways to implement data driven society concepts to any one of the cities of your choice and point out the challenges to be addressed	10	2	3
4.	Present a simple model to implement IOT (consumer IOT) in residential buildings and the challenges to be addressed.	10	3	3
5.	A newly elected mayor of a metropolitan city is interested in using local co-creation principles to address complex, community-specific challenges like an aging population and environmental sustainability. Present the steps to be followed by the governor to implement co-creation principles effectively.	10	2	3