



SCHOOL OF ELECTRONICS ENGINEERING
CONTINUOUS ASSESSMENT TEST - 1
FALL SEMESTER 2025-2026

Programme Name & Branch : B.TECH Electronics and Communication Engineering
Course Code and Course Name : BECE403E & Embedded Systems Design
Faculty Name(s) : Dr. PRAKASH R
Class Number(s) : VL2025260100285
Date of Examination : 19/08/2025
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 Outcomes
 1. Design any application, based on the given specifications by keeping in mind different design metrics.
 2. Apply the skills attained to differentiate Microprocessor/Microcontroller and interface various peripherals for a particular application.
 3. Demonstrate proficiency in using device drivers, firmware and debugging tools.

Q. No	Question	M	CO	BL
1.	Assume an embedded system of your own and discuss on design challenges related to power and suggest the best embedded systems product development model with proper justifications.	10	1	3
2.	Architect the embedded control for a washing machine and illustrate its fundamentals blocks, interconnection and the behaviour model.	10	1	3
3.	Elaborate in detail about the factors need to be considered during the processor selection for evaluating , embedded system electronics parameters of VIT Vellore facial attendance monitoring system.	10	2	3
4.	For the same VIT Vellore facial attendance monitoring system, discuss on selection of right peripherals and memory. Illustrate your selection using a table with justification.	10	2	2
5.	Answer the following 1) What is the need of a cross compiler? 2) Differentiate between emulator and simulator, 3) How can you introduce break points in code execution in real run time? 4)What is the need for make file in embedded system building process 5) Why does debugging embedded systems challenging?	10	3	1