



VIT

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

REG.NO.: 23BEC0369

SCHOOL OF ELECTRONICS ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
WINTER SEMESTER 2025-2026

SLOT: B1

Programme Name & Branch : B.Tech. ECE
Course Code and Course Name : BECE320E - Embedded C Programming
Faculty Name(s) : Prof. Vidhyapathi CM + 5 faculty
Class Number(s) : VL2025260500844,846,848,850
Date of Examination : 28-01-2026
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)
- CO1 - Apply the C programming language for various data types and decision making applications.
- CO2 - Apply the knowledge of derived data types, pointers, and functions in C to write a program

Q. No	Question	M	CO	BL
1.	Apply your knowledge of C programming to determine the output of the following code snippets when executed. They are part of a valid C program which includes the necessary headers and the main() function. (2.5 Marks each)			
	(i) <code>int i = 1;</code> <code>i = 2*-i + 2 * i++;</code> <code>printf("%d", i);</code> (ii) <code>short int i = 20;</code> <code>char c = 97;</code> <code>printf("%d, %d, %d\n", sizeof(i), sizeof(c), sizeof(c + i));</code> (iii) <code>int x = 0, y = 1;</code> <code>if (++x ++y) {</code> <code>printf("Condition met\n");</code> <code>}</code> <code>printf("x=%d, y=%d\n", x, y);</code> (iv) <code>signed char chr;</code> <code>chr = 128;</code> <code>printf("%d\n", chr);</code>	10	1	3
2.	Identify and correct the errors in the following C programs. Rewrite the programs after making the necessary corrections without changing given logic. (5 Marks each)			
	(i). // The following program displays // LCM of two numbers <pre>int main() { int a, b; printf("Enter two numbers: "); scanf("%d %d", &a, &b);</pre> (ii). // The following program prints // the factorial of a number <pre>#include <stdio.h> int main() { int num1, fact=1, num2;</pre>	10	1	3



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	<pre>max = (a > b) ? b : a; for (; max++) { if (max % a == 0 & max % b == 0) { printf("LCM = %d", max); break; } } return 0; }</pre>	<pre>printf("Enter a number : "); scanf("%d", &num1); num2=num1; while(num1>=1) { num1=num1-1; fact=fact*num1; } printf("Factorial of %d is %d", num1, fact); return 0; }</pre>			
3.	Write a C program to categorize a single character given at the terminal as lower case or upper case or digit or special character using if else ladder.		10	1	3
4.	Write a C program to get an array from the user and arrange the element in such a way that all the even numbers should come first in ascending order followed by all the odd numbers in descending order.		10	1	3
5.	Write a C program which asks the user to enter the names and ages of three people, stores them in arrays, calculates the average age, and then prints out the names along with their ages and the average age.		10	2	3
