



VIT

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

REG.NO.:

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

SLOT: C1+TC1

Programme Name & Branch : B.TECH CSE
Course Code and Course Name : BECE204L- MICROPROCESSORS & MICRCONTROLLERS
Faculty Name(s) : DR. NAUSHAD MANZOOR LASKAR (COURSE COORDINATOR)
Class Number(s) : VL2025260501053/1014/1018/1022/1055/1024/1020/
 1035/1057/1039/1028/1059/1043/1030/1046/1061/1064/1033/1068/1070/1072/10
 66/1074/1076/1049/1078
Date of Examination : 29.1.2026
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)
- Course Outcomes (Type the CO statements covered in this question paper. Use the CO number as per the syllabus copy)
 CO3: Apply 8051 microcontroller instructions to write assembly language programs.
 CO4: Demonstrate the functionality and interfacing of peripherals.

Q. No	Question	M	CO	BL
1.	a) Discuss about the data memory organization in 8051 microcontrollers.	5	3	2
	b) Write the addressing modes for the following instructions i. MOV A,30H ii. PUSH 6 iii. MOVC A, @A+PC iv. ADD @R1, A v. DIV AB	5	3	2
2.	a) For the following program, write the output and status of PSW after execution of each line of the program SETB PSW.4 MOV A,#47H MOV R3,#25H ADD A,R3 DA A END	5	3	3
	b) Write an Assembly Language Program to realize $Y = AB + \overline{A} \overline{B}$.	5	3	3
3.	Analyze the program below and show the status of stack, memory location and stack pointer after execution of each line in the program MOV SP,#70H MOV R5,#66H MOV R2,#07FH MOV R7,#5DH PUSH 5	10	3	4



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	PUSH 2 PUSH 7 CLR A MOV R2,A MOV R7,A POP 7 POP 2 POP 5			
4.	Write an Assembly Language Program to monitor Pin 3 of Port 1 and create a waveform of 70% duty cycle on Pin 3 of Port 2 if Pin 3 of Port 1 is high	10	4	3
5.	Assume that P1.2 is connected to a Switch 'SW'. Write an Assembly Language Program to monitor the status of 'SW' and perform the following <ul style="list-style-type: none"> i. If SW=0, send data from P0 to P2 ii. If SW=1, send the string "YOUR NAME" stored in ROM 0300H to P2 in reverse order. 	10	4	4
