Reg.No:

SNS College of Technology,Coimbatore-35.
(An Autonomous Institution)
B.E/B.Tech- Internal Assessment -III
Academic Year 2023-2024(Even Semester)
Fourth Semester
Electronics & Communication Engineering
19ECB211 – Microcontroller Programming & Interfacing

B

Time: 1¹ᐟ² Hours   **Maximum Marks: 50**

Answer All Questions

PART - A (5x 2 = 10 Marks)

		CO	Blooms
1.	Distinguish ADC and DAC	CO4	Ana
2.	Define the applications of PIC Microcontrollers.	CO4	Rem
3.	MSP are mixed signal processors- Explain	CO5	Und
4.	What is ARM programmer's model?	CO5	Und
5.	Explain the use of Thumb instruction sets in ARM.	CO5	Und

PART – B (2*13=26 Marks) (1*14=14 Marks)

				CO	Blooms
6.	(a)	Draw and explain the concept of Sensor interfacing and Signal conditioning in PIC16F877A.	13	CO4	Und
		(or)			
	(b)	Define about the DC motor interfacing with PIC16F family.	13	CO4	Rem
7.	(a)	Explain with block diagram of the ARM architecture.	13	CO5	Und
		(or)			
	(b)	Illustrate the register organising modes of the ARM.	13	CO5	Und
8.	(a)	Analysis the methods, challenges, and practical implementations of interfacing a stepper motor with the PIC16F877A microcontroller and the performance evaluation of the stepper motor control	14	CO4	Ana
		(or)			
	(b)	You are designing a battery-operated temperature monitoring system for a remote weather station. Draw the block diagram of the MSP430 microcontroller and explain its main features and advantages.	14	CO5	Und

Abbreviations:

      CO – Course Outcomes; **Rem-** Remembering; **Und –** Understanding; **App –** Applying; **Ana –** Analyzing;

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