Q.P. Code: 20EC0416

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Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech III Year I Semester Regular Examinations March-2023

MICROPROCESSORS AND MICROCONTROLLERS

(Electronics and Communication Engineering)

Time: 3 hours | Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

		UNIT-I			
1	a	List different computer languages and explain them.	CO2	L2	8M
	b	Write the steps required for writing and executing Assembly language Program and explain the procedure.	CO3	L2	4M
		OR			
2		List the three operations commonly performed by the Microprocessor or MPU.	CO2	L1	12M
		UNIT-II			
3	a	Explain the functions of a program counter, stack pointer & ALU in 8085 μP.	CO2	L2	6M
	b	Explain the Data transfer instructions of the 8085 microprocessor with example.	CO2	L2	6M
		OR			
4	a	Sketch neat the block diagram of 8085 Architecture and explain the function of each block.	CO3	L3	8M
	b	Outline the role of the following pins in the8085 microprocessor i) RESET OUT ii) ALE iii) HOLD & HLDA iv) TRAP	CO2	L2	4M
		UNIT-III			
5		Draw the pin diagram of 8051 microcontroller and describe the functionality of each pin in detail.	CO3	L4	12M
		OR			
6	a	Analyze the functionality of I/O ports circuits in 8051 microcontroller.	CO4	L4	8M
	b	Describe the functions of PCON and SCON in the 8051 microcontroller.	CO2	L2	4M
		UNIT-IV			
7	a	Explain the moving data instructions of 8051microcontroller with an example.	CO4	L2	6M
	b	Draw and explain the external addressing using mov x and mov c.	CO4	L2	6M
		OR			
8	a	Develop and write an assembly program of 8051microcontroller to divide and multiplication two 8-bit numbers and store the result in a 2055 & 2057 memory location.	CO6	L3	6M
	b	Explain any three arithmetic operations Instructions of 8051 microcontroller with an example.	CO4	L2	6M
		UNIT-V			
9	a	Design and explain the large matrix keyboard.	CO5	L2	6M
	b	Define the D/A and A/D conversions and write any five advantages.	CO4	L1	6M
		OR			
10	a	Draw the pin diagram and explain the intelligent LCD display.	CO4	L1	6M
	b	Describe and design the hardware circuits for multiple interrupts.	CO5	L1	6M

*** END ***

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