Q.P. Code: 16EC423 **R16**

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

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech III Year II Semester Supplementary Examinations July-2021

MICROPROCESSORS & MICROCONTROLLERS

(Common to ECE, EEE & CSE)

Time: 3 hours Max. Marks: 60

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

UNIT-I

1		Illustrate neat block diagram of 8085 microprocessor and explain its internal architecture.	**12M**
		OR	
2	**a**	Illustrate the timing diagrams of the following 8085 μP instruction and explain them in detail MOV A, M	**10M**
	b	List the various addressing modes of 8085 μP,	**2M**

UNIT-II

3		With the help of neat block diagram, explain the internal architecture of 8086 microprocessor.	**12M**
		OR	
4	**a**	Explain the memory segmentation of 8086 μP.	**10M**
	b	Mention the importance for memory segmentation.	**2M**

UNIT-III

5		Describe the functionality of I/O ports present in 8051 μC.	**12M**
		OR	
6	**a**	List various addressing modes of 8051 microcontroller and explain them with an example each.	**10M**
	b	Draw the flag register of 8051 μC	**2M**

UNIT-IV

7	**a**	Explain Jump and Call instructions of 8051 μC with an example.	**10M**
	b	Mention the difference between Jump and Call operations.	**2M**
		OR	
8		Write an assembly program of 8051 μC to multiply two 8-bit numbers and store the result in a memory location.	**12M**

UNIT-V

9	**a**	With a neat diagram, show the interfacing of a 4x4 matrix keypad with 8051 μC.	**7M**
	b	Describe key bouncing problem and de-bouncing solutions.	**5M**
		OR	
10	**a**	Write a short note on 7-Segemnt display.	**3M**
	b	With the help of a neat diagram, show the interfacing of 7- segment display with 8051 μC and explain its operation.	**9M**

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