R16

Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year II Semester Regular & Supplementary Examinations October-2020
MICROPROCESSORS & MICROCONTROLLERS
(Common to EEE, ECE & CSE)

Time: 3 hours   Max. Marks: 60

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

UNIT-I

1	a	Illustrate neat block diagram of 8085 microprocessor and explain its internal architecture.	**8M**
	b	Draw and explain the flag register of 8085 microprocessor.	**4M**

OR

2	Draw the pin diagram of 8085 μP and explain the functionality of each pin.	**12M**

UNIT-II

3	Explain the functionality of pins used in the following modes of 8086 μP.	**6M**
	a Minimum mode.	
	b Maximum mode.	**6M**

OR

4	a	Mention the importance for memory segmentation.	**6M**
	b	Explain the memory segmentation of 8086 μP.	**6M**

UNIT-III

5	a	Define counter. Mention the applications of counter.	**6M**
	b	Describe the operation of timers present in 8051 μC.	**6M**

OR

6	a	Mention the importance of I/O port in a μP or μC.	**3M**
	b	Describe the functionality of I/O ports present in 8051 μC	**9M**

UNIT-IV

7	a	Explain how the 8051 μC performs rotate and swap operations with an example.	**8M**
	b	Explain how the ISR is implemented with an example.	**4M**

OR

8	a	Describe the operation of return instruction in 8051 μC with suitable example.	**6M**
	b	Explain the arithmetic Instructions of 8051 μC with an example	**6M**

UNIT-V

9	a	Draw and explain briefly SCON SFR in 8051 μC	**6M**
	b	Explain the various modes of operation w.r.t serial port in 8051 μC.	**6M**

OR

10	Design and explain any microcontroller-based system with suitable examples	**12M**

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