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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

BTech II Year I Semester Regular Examinations February-2021

MICROPROCESSORS & MICROCONTROLLERS

(Common to CSE & CSIT)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 With a neat sketch explain the operation of Microprocessor Controlled Temperature System (MCTS). 12M

OR

- 2 a Differentiate between μP & μC . 7M
b Explain the terms i) SSI ii) MSI iii) LSI iv) VLSI v) ULSI 5M

UNIT-II

- 3 a List out the important features (any 12) of 8085 microprocessor. 6M
b Sketch neat block diagram of 8085 microprocessor. 6M

OR

- 4 a Draw the pin diagram of 8085 μP . 7M
b Define the following pins: 5M
i) READY ii) ALE iii) RESET OUT iv) HOLD & HLDA.

UNIT-III

- 5 With the help of a neat block diagram, Explain the internal architecture of 8051 microcontroller in detail. 12M

OR

- 6 a Compare serial communication and parallel communication. 3M
b Explain how the 8051 μC transfers the data using serial port. 9M

UNIT-IV

- 7 a Define addressing mode. 2M
b List various addressing modes of 8051 microcontroller and explain them with an example each. 10M

OR

- 8 a Write an assembly program of 8051 μC to divide two 8-bit numbers and store the result in a memory location. 6M
b Write an assembly program of 8051 μC to subtract two 8-bit numbers and store the result in a memory location. 6M

UNIT-V

- 9 a List the features of 16X2LCDdisplay. 3M
b Draw and explain the pin Diagram of 16x2LCD display. 9M

OR

- 10 a Write a short note on 7-segment 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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