IH Used Paper B-TECH-09-11-20

R16

Code No: 135BF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year I Semester Examinations, October - 2020
MICROPROCESSORS AND MICROCONTROLLERS
(Common to EEE, EIE)

Time: 2 hours **Max. Marks: 75**

Answer any five questions
All questions carry equal marks
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1.a) Draw the flag register of 8086 microprocessor and explain each flag.
b) What are interrupts? What are their uses? List and explain different interrupt supported by 8086 microprocessor. [7+8]

2.a) Discuss different string instruction of 8086 microprocessor with examples.
b) List and explain different addressing modes supported by the 8086 microprocessor. [7+8]

3.a) With a neat diagram, explain the internal architecture of 8051 microcontroller.
b) List the applications of 8051 microcontrollers. [8+7]

4.a) Discuss the internal memory organization of 8051 microcontroller.
b) Explain the use of timers and counters available in 8051 microcontroller. [7+8]

5.a) Compare between serial communication and parallel communication.
b) What are D-to-A controllers? Explain their applications. [8+7]

6.a) What is RS232? Explain its interfacing with 8051.
b) Explain the working of I2C Bus. [8+7]

7.a) Draw and explain the program status register of ARM processors.
b) Discuss the main characteristics of ARM instruction set. [7+8]

8.a) List and discuss the features of OMAP Processor.
b) What is a cache memory? What is its use in microcomputers? [7+8]

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