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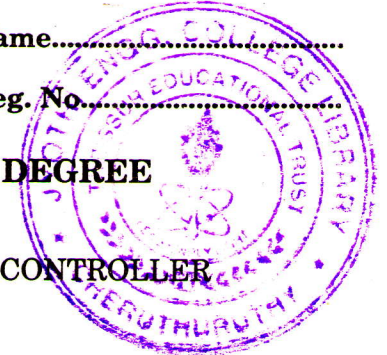
Name.....

Reg. No.....

**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2005**

EE 2K 601/PTEE 2K 501—MICROPROCESSOR AND MICROCONTROLLER

(New Scheme)



Time : Three Hours

Maximum : 100 Marks

- I. (a) Classify the difference between 8085 and 8086 processors.
(b) Explain the Interrupt pointer table in 8086 processor.
(c) Explain the Bidirectional mode of operation in PPI 8255 chip.
(d) Explain the features of programmable communication interface chip (8251).
(e) Explain the algorithm of branch prediction logic.
(f) Explain the features of the SELECTOR control register.
(g) Explain how the architecture of a microcontroller differ from that of a microprocessor.
(h) Explain the features of 8051 Timer configuration.
- (8 × 5 = 40 marks)
- II. (a) With suitable block diagram explain the architecture and organisation of 8085 processor.
- Or*
- (b) With suitable block diagram explain the architecture and organisation of 8086 processor.
- III. (a) Explain how 8257 DMA controller is interfaced to 8086 processor also. Write an ALP to transfer 256 bytes of data from a peripheral device to the processor memory.
- Or*
- (b) Explain how 8253 Timer controller is interfaced to 8086 processor also. Write on ALP to generate a square wave output at any described frequency.
- IV. (a) Explain the features and function of MMU of 80386 processor.
- Or*
- (b) Explain the following :—
(i) Real and protected mode mechanism. (8 marks)
(ii) Memory Paging (7 marks)
- V. (a) With suitable circuit explain the function of the Ports of 8051 microcontroller. Also device an interfacing circuit to multiplex two seven segment display devices.
- Or*
- (b) Explain with suitable hardward how 8051 microcontroller could be used for REAL TIME DATA ACQUISITION and control application.

(4 × 15 = 60 marks)