

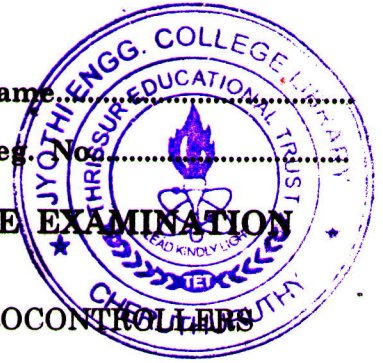
C 58328

Name .....

Reg. No. ....

**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
JUNE 2009**

**EE 2K 601/PTEE 2K 501—MICROPROCESSORS AND MICROCONTROLLERS**



Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

1. (a) How is the instruction set of 8085 organised ? Give *two* examples for each group.  
(b) Explain multiprocessor configuration of 8086.  
(c) Draw the block diagram of 8253 programmable timer.  
(d) State the features of 8251.  
(e) What is memory paging ? Write a brief note.  
(f) State the physical memory size of 80386. What is pipelining ?  
(g) Differentiate between Indexed Addressing, Direct Addressing and Immediate addressing in 8051  $\mu$ c.  
(h) Explain MUL and DIV instruction of 8051.

(8  $\times$  5 = 40 marks)

2. (a) Explain the architecture of 8085 microprocessor and discuss the features.

*Or*

- (b) (i) Write a note on interrupts of 8086  $\mu$ P. (6 marks)  
(ii) Explain the operation of 8086 in minimum mode. (9 marks)

3. (a) Design a memory interfacing circuit to connect  $2K \times 8$  EPROM and  $4K \times 8$  SRAM to the 8085 microprocessor. The hardware available are  $1K \times 4$  EPROM IC and  $2K \times 4$  SRAM IC. Assume other hardware as necessary.

*Or*

- (b) Describe the features of 8257 with block diagram.

(15 marks)

4. (a) Describe the Task State Segment of 80386.

*Or*

- (b) Write a note on the memory management mode of Pentium processor.

(15 marks)

5. (a) List the various instructions under Arithmetic group of 8051  $\mu$ c and explain its function.

*Or*

- (b) (i) Explain the flag register of 8051. (8 marks)  
(ii) State the function of SBUF and SCON registers, also draw their bit positions. (7 marks)

[4  $\times$  15 = 60 marks]