

C 47614



Name.....

Reg. No.....

**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2008**

EE 04 602 – MICROPROCESSOR AND MICROCONTROLLERS

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

- I. 1. Explain the memory segmentation in 8086 microprocessor.
2. What is pipelining in 8086 microprocessor operation? Explain.
3. Explain the different modes of operation related to ports in 8255 PPI.
4. Detail the preparation of command word in Interrupt controller IC 8259.
5. Explain the register organisation in the architecture of 80386 microprocessor.
6. Explain the data types supported by 80286 microprocessor.
7. Explain the IVT related to hardware interrupts in 8051 microcontroller.
8. Explain the function of TMOD register in the operation of 8051 microcontroller.
(8 × 5 = 40 marks)
- II. (a) Detail the internal architecture of 8087 math processor with neat block diagram.
Or
(b) Explain the function of 8089 input-output processor with neat block diagram.
- III. (a) Explain the interfacing of keyboard using 8279 IC using required program in 8086 assembly language.
Or
(b) Explain the details of timers and counters in 8253 IC with neat block diagram.
- IV. (a) Explain the internal architecture of 80386 microprocessor with neat block diagram.
Or
(b) Detail the special features of Pentium microprocessor including hyper threading technology.
- V. (a) Detail the logical division of internal RAM in 8051 microcontroller including stack operation.
Or
(b) Explain the interfacing of stepper motor with 8051 microcontroller using neat diagram and driver program in 8051 assembly language.

[4 × 15 = 60 marks]