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Name.....

Reg. No.....

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
JUNE 2007

EE 04 602—MICROPROCESSORS AND MICROCONTROLLERS

(2004 admissions)

(Old Scheme)

Time : Three Hours Maximum : 100 Marks

I. 1 What do you mean by Pipelining in 8086 microprocessor ? Explain.

2 Explain floating point representation in 8087 numeric data processor.

3 Detail the process of framing and deframing in serial communication.

4 Explain the internal registers in Interrupt controller 8259.

5 Elucidate the idea of real mode and protected mode in 80386 processor.

6 What is hyper threading technology ? Explain.

7 Explain the stack operation in 8051 microcontroller.

8 Detail the addressing modes in 8051 microcontroller.

(8 × 5 = 40 marks)

II. A. Explain the interrupt system in 8086 microprocessor. Also explain the priority-order of interrupts.

Or

B. (i) Explain the interface between 8086 microprocessor and 8087 numeric data processor.

(ii) Write an assembly language program to add multiple bytes using 8086 microprocessor.

III. Explain the architecture of programmable peripheral interface (8255) with neat diagram. Also detail the preparation of control word.

Or

Explain the interfacing of ADC and DAC to 8086 microprocessor with neat diagram.

IV. (a) Explain the internal architecture of 80386 microprocessor with neat diagram.

Or

(b) Detail the special features of pentium microprocessor including hyper threading technology.

V. (a) Explain the internal architecture of 8051 microcontroller with neat block diagram.

Or

(b) Detail the interfacing of hexadecimal keyboard to 8051 microcontroller with neat diagram and driver program.

(4 × 15 = 60 marks)