B.Tech Degree V Semester (Supplementary) Examination June 2011

CS/EB 506 MICROPROCESSOR BASED SYSTEM DESIGN

(2006 Scheme)

Time : 3 Hours Maximum Marks : 100

PART A

(Answer **all** questions)

(8x5=40)

I. a) Explain memory segmentation and segment registers of 8086.

b) What you mean by Assembler directives? Explain with examples.

c) Compare the minimum mode and maximum mode operations of 8086.

d) Compare 8086 processor with 8088.

e) Explain the DMA transfer and operation of 8086.

f) Explain the paging mechanism of 80386.

g) Explain the salient features of Pentium family processors.

h) Compare a microcontroller with a microprocessor.

PART B

(4x15=60)

II. With a neat block diagram, explain the internal architecture of intel 8086 microprocessor. Also explain the various registers of 8086. (15)

OR

III. a) Explain the following instructions of 8086. (5)
1. SCASB 2. CWD 3. SAHF 4. LEA 5. AAA

b) Write an assembly language programme to reverse a string store in a memory location. (10)

IV. Draw a neat block diagram of 8259, and explain its features. (15)

OR

V. Explain about the microprocessor system interconnection topologies used in interfacing processors. (15)

VI. a) Explain the difference between RISC and CISC processors. (10)

b) Explain the instruction and data caches in Pentium processors. (5)

OR

VII. Explain the role of segment descriptor registers and tables in 80386 microprocessor. (15)

VIII. Explain the architecture of 8051 Microcontroller with a neat diagram. (15)

OR

IX. Explain the memory organization of 8051 with necessary diagrams. (15)

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