BTS (C) – V – 09 – 056 – F

B.Tech. Degree V Semester Examination, November 2009

CS/EB 506 MICROPROCESSOR BASED SYSTEM DESIGN

(2006 Scheme)

Time: 3 Hours Maximum Marks: 100

PART - A

(Answer all questions)

(8x5=40)

I. (a) What are the applications of microprocessor?
(b) Explain about memory segmentation.
(c) Compare 8086 and 8088.
(d) What is DMA? Explain.
(e) Explain the protected mode of 80386.
(f) Explain the concept and advantages of pipelining.
(g) Differentiate between microprocessors and microcontrollers.
(h) What is actuator? What are the different types of actuators?

PART – B

(4x15=60)

II. With a neat diagram, explain the architecture of Intel 8086 microprocessor. (15)

OR

III. (a) Explain with examples, the various addressing modes of 8086. (8)
(b) Explain the different types of instructions of 8086 with examples. (7)

IV. With a block diagram, explain the operation of 8259 programmable interrupt controller. (15)

OR

V. (a) Differentiate between memory mapped I/0 and I/0 mapped I/0. (5)
(b) Explain about the minimum mode and maximum mode configurations of 8086. (10)

VI. With a block diagram, explain the architecture of Intel 80386. (15)

OR

VII. (a) Differentiate between RISC and CISC architectures. (5)
(b) Compare the features of Pentium II, Pentium III and Pentium IV. (10)

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

OR

IX. (a) Explain the different addressing modes of 8051 with examples. (8)
(b) Briefly explain the interfacing of 8051 with sensors. (7)

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