Question Paper Code : R 3647

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Fifth Semester

Computer Science and Engineering

CS 334 – MICROPROCESSORS

(Regulation 2001)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Name the flags in the flag register of 8085.

2.   What is the function of XRA A instruction?

3.   Give the comparison between procedure and macro.

4.   What are the sources of interrupts in 8086?

5.   What is the purpose of the ALE signal in an 8086 system?

6.   In what ways are a standard microprocessor and a coprocessor different from each other?

7.   Compare parallel and serial type of data transfer.

8.   What do you mean by encoded scan and decoded scan?

9.   List the different registers in 80386.

10. What is the purpose of TLB and descriptor cache?

PART B — (5 × 16 = 80 marks)

11. (a)   Explain the internal architecture of 8085 with block diagram.   (16)

Or

(b)   (i)   How is the instruction set of 8085 classified? Explain.   (10)

(ii)   Write an assembly language program to find the maximum and minimum numbers from an array of numbers.   (6)

12. (a) (i) Discuss all types of shift instructions used in 8086 microprocessor with example. (8)

(ii) How is physical address generated in 8086? Explain. (8)

Or

(b) (i) Write an assembly language program to compare strings. (8)

(ii) Explain in detail about 8086 stack operations. (8)

13. (a) Draw and explain the internal structure of 8087 coprocessor. (16)

Or

(b) (i) What is difference between a closely coupled and a loosely coupled system? What are the relative advantages and disadvantages? (8)

(ii) Draw and discuss the read and write cycle timing diagrams of 8086 in minimum mode. (8)

14. (a) Explain various functional units of 80286. (16)

Or

(b) List the salient features of 80486. (16)

15. (a) Explain the architecture, organisation and various modes of operation of programmable DMA controller. (16)

Or

(b) With the help of a functional block diagram explain the organisation and working of programmable interrupt controller. (16)

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