ANNA UNIVERSITY OF TECHNOLOGY, COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : NOV / DEC 2011

REGULATIONS : 2008

FOURTH SEMESTER

080250010 - MICROPROCESSORS AND MICROCONTROLLERS

(COMMON TO CSE / IT)

Time : 3 Hours   Max.Marks : 100

PART - A

(10 x 2 = 20 Marks)

ANSWER ALL QUESTIONS

1.   What is the need for system clock and how it is generated in 8085?

2.   Define opcode and operand.

3.   What are the modes in which 8086 can operate?

4.   What is the data and address size in 8086?

5.   What do mean by closely coupled configuration?

6.   List the features of 8089

7.   What are the control words of 8251A and what are its functions?

8.   How a keyboard matrix is formed in keyboard interface using 8279?

9.   What is mean by microcontroller?

10.   List out the interrupts of 8051 microcontroller?

PART - B

(5 x 16 = 80 MARKS)

ANSWER ALL QUESTIONS

11. (a)   Describe the functional pin diagram of 8085.

           (OR)

11. (b)   Describe the functional block diagram of 8085.

12. (a)   Explain the addressing modes and Macros of 8086?

           (OR)

12. (b)   Describe the functional pin diagram of 8086.

13. (a)   Explain in detail the coprocessor configuration

           (OR)

13. (b)   Describe the functional block diagram of 8089.

14. (a)   i) Explain the working of timer and write a program using it to generate a square waveform of period 3 msec.   (10)

            ii) Describe with any one of the mode configurations of timer in detail. (6)

           (OR)

14. (b)   With necessary circuit diagram explain how a stepper motor is controlled using a microprocessor

15. (a)   Write a program to subtract 2 8-bit numbers &exchange the digits using 8051?

           (OR)

15. (b)   Explain the architecture of 8051 microcontroller with necessary diagram

*****THE END*****