ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : MAY / JUNE 2010

REGULATIONS : 2007

FIFTH SEMESTER

070290032 - MICROPROCESSORS AND MICROCONTROLLERS

(COMMON TO CSE / IT)

TIME : 3 Hours   Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. What is Microprocessor? Give the power supply & clock frequency of 8085

2. What is the function of IO/M and READY in the 8085?

3. Mention the purpose of SID and SOD lines

4. Explain priority interrupts of 8085.

5. Mention the different types of addressing modes in 8086.

6. List the different sources of 8086 interrupts.

7. What is interrupt service routine?

8. Discuss the function of instruction queue in 8086

9. What are the functions of status pins in 8086?

10. How can single stepping be done in 8086?

11. What are the two modes of operations present in 8086?

12. What is multiprogramming?

13. What is Key bouncing?

14. What are the different types of write operations used in 8253?

15. What is the use of modem control unit in 8251?

16. Distinguish between the memory mapped I/O and peripheral I/O?

17. Compare Microprocessor and Microcontroller.

18. Write a program using 8051 assembly language to change the data 55H stored in the lower byte of the data pointer register to AAH using rotate instruction.

19. Name the special functions registers available in 8051.

20. State the function of RS1 and RS0 bits in the flag register of intel 8051.

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. (a). With neat diagram explain the architecture of 8085.   (8)

    (b). Draw the timing diagram of PUSH.   (4)

22. (a). Describe the addressing modes of 8086 with example.   (8)

    (b). Give short notes on the classification of instruction set in 8086   (4)

23. Give an account of Interrupts and interrupt service routines in 8086.

24. Explain the maximum mode operation of 8086.

25. With neat diagram explain DMA controller.

26. (a) Discuss how 8251 is used in serial communication of data   (6)

    (b) What are the advantages of using keyboard and display controller chips in (6)
        microprocessor based system.

1   2

27. (a) Explain the I/O port structure of 8051. (6)

    (b) Explain memory structure of 805. (6)

28. With neat diagram explain the architecture of 8051.

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