ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : DECEMBER 2009

REGULATIONS : 2007

FIFTH SEMESTER – ELECTRONICS & COMMUNICATION ENGINEERING

070290054 - MICROPROCESSOR AND APPLICATIONS

TIME : 3 Hours   Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1.   What are the addressing modes of 8085 microprocessor?

2.   List the interrupts available in 8085 microprocessor.

3.   Define "stack" and mention its need.

4.   What are the instructions used for data transfer in 8085 microprocessor?

5.   How the clock signal is generated in 8086 microprocessor and what is the maximum internal clock frequency?

6.   What is ALE?

7.   When the READY signal is sampled by the processor?

8.   What is masking of interrupts and why it is required?

9.   What are the operations performed by string instructions in 8086 microprocessor?

10. What is the difference between CALL and JUMP instruction?

11. What is a macro and when it is used?

12. What is a list?

13. What are the operating modes of port-A of 8255?

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

15. What is cycle stealing DMA?

16. What is the function of GATE signal in timer 8254?

17. List the characteristics of DRAM.

18. What is programmed I/O?

19. What is memory access time?

20. What are the factors to be considered while selecting a semiconductor memory for microprocessor system?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. (a) Give the format of flag register in 8085 microprocessor and explain each (4) flag.

     (b) Explain the addressing modes of 8085 microprocessor with example.   (8)

22. Draw the timing diagram of MEMORY READ CYCLE of 8086 microprocessor and explain the activities of the bus in each T-state.

23. (a) Draw the internal architecture of 8086 microprocessor.   (6)

     (b) Write the operations performed to service an interrupt in 8086 (6) microprocessor.

24. (a) Explain the Register indirect addressing and Indexed addressing of 8086 (6) microprocessor.

     (b) Write note on control transfer instructions of 8086 microprocessor.   (6)

25. (a) Write an assembly language program to find the largest data in an array for   (8)
8086 microprocessor.

    (b) Write note on assembler   (4)

26.   List the major components of the 8279 keyboard/display interface and
      explain their functions with neat diagram.

27. (a) Give the comparison of memory mapping and I/O mapping of I/O device.   (4)

    (b) Write note on SRAM interfacing.   (8)

28.   Explain in detail the architecture and the operation of 8085 microprocessor
      with neat diagram.

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