G 1861 (Pages:2)

B.TECH DEGREE EXAMINATION, MAY 2012

Fourth Semester

Branch: Computer Science and Engineering

CS 010 405 – MICROPROCESSOR SYSTEMS (CS)

(Regular – 2010 Admissions)

Time: Three Hours   Maximum: 100 Marks

*Answer **all** questions.*

Part A

*Each question carries **3** marks.*

1. What is the need of ALE and TRAP Pins in 8085 Microprocessor?
2. What are the different memory mapping scheme? Give any *one* advantage and disadvantage for each.
3. Explain priority interrupts of 8085.
4. What are the various programmed data transfer methods?
5. What are the modes of operations used in 8253?

(5 x 3 = 15 marks)

Part B

*Each question carries **5** marks.*

6. What are the flags affected by ALU in 8085? Explain briefly.
7. Write short notes on subroutine with an example.
8. Explain working of INTR interrupt.
9. Explain the need and functionality of a DMA controller.
10. Draw the architecture of 8251.

(5 x 5 = 25 marks)

Part C

*Each full question carries **12** marks.*

11. Explain the function of signals and major components in the architecture of 8085 processor.

Or

12. Write the name of the different addressing modes used in 8085 instruction set and explain about each one with suitable example.

13. Write an 8085 microprocessor based assembly language program to sort an array of data in ascending order.

Or

14. Write an assembly language program to convert ASCII Code to 8 bit binary.

15. Explain briefly about the different types of interrupts in 8085.

Or

16. Draw the block diagram of programmable interrupt controller and describe its operation.
17. Briefly explain about 8257.

Or

18. Explain in detail about the operation of 8255.
19. Describe the architecture and working of 8253 timer.

Or

20. Explain about the USART 8051.

(5 x 12 = 60 marks)