

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SC.

FOURTH SEMESTER – APRIL 2010

CS 4500 - MICROPROCESSORS & COMPUTER ARCHITECTURE

Date & Time: 21/04/2010 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

PART - A: ANSWER ALL THE QUESTIONS

10 x 2 = 20

1. List out the steps to fetch the instructions located in memory location 2005H.
2. What is Microprocessing Unit?
3. What are the different types of data transfer?
4. List out the flags set or reset after the execution of an instruction in 8085.
5. What are the instructions to rotate the accumulator bits in 8085?
6. Write a short note on Stacks in 8085.
7. What are micro operations? Give example
8. What does selective-clear operation do?
9. Differentiate between instruction code and operation code.
10. What are Program Interrupts?

PART - B: ANSWER ALL THE QUESTIONS

5 x 8 = 40

11. a) Explain the memory classifications.

(OR)

- b) Explain the process of communication between the microprocessor and memory with the timing diagram.

12. a) Explain the format of instruction and Data in 8085.

(OR)

- b) Explain the different addressing modes of 8085 instructions.

13. a) Explain with an example handling of subroutines in 8085.

(OR)

- b) Write an assembly program to perform Binary to ASCII Hexa conversion.

14. a) Explain the circuit of 4-bit Adder -Subtractor.

(OR)

- b) Explain the different types of Shift microoperations.

15. a) Demonstrate the Direct and Indirect addressing with an example.

(OR)

b) Explain any four memory reference instructions.

PART - C: ANSWER ANY TWO QUESTIONS

2X20 = 40

16. a) Explain the pin diagram of the 8085 microprocessor. (10)

b) Explain any 10 basic arithmetic and logical instructions in the instruction set of 8085.

(10)

17. a) Explain the different Data Transfer instructions in the instruction set of 8085.

(10)

b).Write an assembly language program to find the sum of a set of 10 numbers.

(10)

18. a) Explain the Arithmetic Logic Shift Unit with its diagram. (10)

b) Explain the phases of instruction cycle. (10)
