



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc.DEGREE EXAMINATION – COMPUTER SCIENCE

SECOND SEMESTER – APRIL 2018

PH 2109- MICROPROCESSOR 8085

Date: 28-04-2018
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART A

ANSWER ALL QUESTIONS

(10×2=20)

1. What are the basic units of a microprocessor?
2. Write a short note on multiplexing?
3. List any four operations performed by ALU of 8085.
4. What will be the content of SP after execution of PUSH instruction?
5. Write a program to subtract two 8 bit numbers in direct addressing mode.
6. What is NOP? State its importance.
7. Give the hardware interrupts of 8085.
8. Define polling.
9. Name the operating modes of port-A of 8255?
10. What is the function performed by DI instruction?

PART B

ANSWER ANY FOUR QUESTIONS

(4×7.5=30)

11. Explain the following instructions (i) LXI H (ii) MOV (iii) XRA A (iv) RET.
12. Explain in detail, the different addressing modes of 8085 with an example
13. Write an assembly language program to perform multiplication of two 8 bit number in any one addressing mode.
14. a) What is 8259?(2 marks)
(b) Explain the working of 8259 with 8085 microprocessor(5.5 marks)
15. Explain the methodology of interfacing I/\bar{O} devices and peripheral IC's.
16. Explain the functions of the following pins
(i) IO/\bar{M} (ii) HOLD (iii) READY (iv) INTR

PART C

ANSWER ANY FOUR QUESTIONS

(4×12.5=50)

17. Write a neat block diagram explain the internal architecture of μp 8085.
18. Write an assembly language program to find the largest data in an array of data stored in 4050H.
19. Explain the working of the programmable interrupt controller 8259 with a neat block diagram.
20. (a) Explain the various rotate instructions of μP 8085.

(b) Assume 'A' register holds 93H and register 'C' holds 76H, predict the status of all the flags after add C instruction is executed. (8+4.5 marks)

21. (a) Explain SIM and RIM instructions with examples.

(b) Describe hardware polling with a neat diagram. (6+6.5)

22. Give the block diagram of 8255 peripheral interface and show how it can be used in mode 0 and mode 1.

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