



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCI.**

THIRD SEMESTER – **APRIL 2014**

PH 3208 - MICROPROCESSOR 8085

Date : 10/04/2014
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

PART A

Answer **ALL** the questions

(10 × 2 = 20)

1. What is the function of a microprocessor in a system?
2. Define stack
3. How many instructions are available in 8085 instruction set?
4. What is the difference between ADD and ADC instruction?
5. Assuming $A = (BD)_H$ & $C = (23)_H$, Predict the status of all the flags after ADD C instruction.
6. What is machine language?
7. Name the three types of DMA?
8. What is TRAP?
9. What is interrupt I/O?
10. What is a port?

PART – B

Answer any **FOUR** questions

(4 × 7.5 = 30)

11. Explain the functions of the following pins, (i) ALE (ii) $\overline{IO/\overline{M}}$ (iii) \overline{RD} (iv) \overline{WR}
12. Explain the different rotate instructions of 8085.
13. Write a program to subtract two 8 bit numbers using in direct addressing mode.
14. Explain hardware polling with a neat block diagram.
15. List out five differences between memory mapped I/O and standard I/O mapped I/O.

PART – C

Answer any **FOUR** questions

(4 × 12.5 = 50)

16. With a neat block diagram, explain the internal architecture of 8085.
17. a) Discuss the addressing modes of 8085 and give example for each.(7.5)
b) Distinguish between the instruction SUB B AND CMP B (5)
18. Write an assembly language program to sort in descending order 10 bytes in memory from address 4200H.
19. a) Explain the difference between hardware interrupt and software interrupts.(5)
b) List the features of 8259.

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