LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

CCC ST

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

THIRD SEMESTER – NOVEMBER 2017

PH 3208 - MICROPROCESSOR 8085

Date: 15-11-2017 Time: 01:00-04:00 Dept. No.

Max.: 100 Marks

PART A

ANSWER ALL QUESTIONS

- 1. What is a microprocessor?
- 2. Name the four control signals commonly used by the μP 8085.
- 3. Why data bus is bidirectional?
- 4. What is the role of interrupt service routine?
- 5. Write a program to add two 8 bit numbers in immediate addressing mode.
- 6. What is the difference between SUB B and CMP B instructions in μP 8085.
- 7. Differentiate between hardware and software interrupts.
- 8. What is a port?
- 9. Explain how 8259 is initialized?
- 10. What is the role of interrupt service routine?

PART B

ANSWER ANY FOUR QUESTIONS

(4×7.5=30)

- 11. How are the address and the data lines demultiplexed in μ P8085?
- 12. Explain hardware polling with a neat diagram.
- 13. Explain the PUSH and POP instructions with examples
- 14. Write a program to divide two 8 bit numbers in immediate addressing mode.
- 15.Explain in detail the interrupt related instructions.
- 16. Give the differences between Memory mapped I/O and Standard I/O.

 $(10 \times 2 = 20)$

PART C

ANSWER ANY FOUR QUESTIONS

17. Explain the internal architecture of 8085 with a neat block diagram.

18.(a) Describe the Flag structure of 8085.(8 marks)

(b) Explain the function of following pins: (i)INTR (ii) ALE (iii) HOLD (4.5 marks)

19. Explain how priority may be assigned using Daisy chaining method with a diagram.

20.(a)What are the various I/O modes of 8255?

(b) Explain the block diagram of programmable peripheral interface 8255

21.(a)What is the difference between CALL and JUMP instruction. (4 marks).

(b) Explain the methodology of interfacing I/O devices and peripheral IC'S.(8.5 marks)

22.Write an assembly language program to perform descending order for ten '8' bit numbers starting from memory location 4350H.

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