

11. 1k byte memory chip consists of
a. 1024 registers b. 1000 registers c. 965 registers
12. The data bus of the μ P 8085 is
a. unidirectional b. bidirectional c. directionless
13. The number of T states required for the OP CODE Fetch cycle is
a. 7 b. 4 c. 3
14. XCHG instruction swaps the contents of
a. BC and HL b. A and HL c. HL and DE
15. TRAP interrupt is
a. maskable b. non-maskable c. programmable

II. FILL IN THE BLANKS:

16. RST instructions are also called _____ interrupts.
17. The Program Counter is a register of _____ bits.
18. The Register A is also known as _____.
19. The _____ is the first operation in each instruction cycle.
20. The program that translates an assembly language program into machine language is called the _____.

III. STATE WHETHER TRUE OR FALSE:

21. The higher order address bus is bidirectional.
22. The 8085 has five basic machine cycles.
23. The LDA instruction uses direct addressing mode.
24. Data is to be stored in the stack on a LIFO basis.
25. There are four modes of operation in the PPI 8255.

IV. ANSWER BRIEFLY:

26. Mention a logical instruction in 8085.

27. What does the instruction DI do?

28. How do you increment the contents of the memory locations whose address is stored in HL?

29. List the software interrupts available in 8085.

30. Name the destination register in the SBB C.

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STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2008-09)

SUBJECT CODE : PH/MC/MM54

B.Sc. DEGREE EXAMINATION NOVEMBER 2010
BRANCH III - PHYSICS
FIFTH SEMESTER

COURSE : MAJOR – CORE
PAPER : MICROPROCESSORS AND MICROCONTROLLERS
TIME : 2½ HOURS **MAX. MARKS : 70**

SECTION – B

ANSWER ANY FIVE QUESTIONS: (5 X 5 = 25)

1. List out and explain any five instructions available in the data transfer group of μP 8085.
2. Write assembly language programs to multiply two 8-bit numbers.
3. Discuss the condition flags of 8085.
4. Explain briefly the SIM instruction.
5. Write short notes on the Interrupt priorities in μP 8085.
6. With a neat timing diagram, explain the Memory Write cycle of 8085
7. Distinguish between the direct I/O and memory mapped I/O.

SECTION – C

ANSWER ANY THREE QUESTIONS: (3 X 15 = 45)

8. Write an ALP to sort an array of 20 numbers in ascending order.
9. Discuss in detail the internal architecture of microcontroller 8051.
10. With a neat diagram explain the internal architecture of the microprocessor 8085.
11. Outline the features of the PPI chip 8255 with its functional block diagram.
12. Discuss in detail the four types of addressing modes of μP 8085 with suitable examples.

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