Register Number: ……

MCA DEGREE EXAMINATIONS: NOV/DEC 2010

Third Semester

MASTER OF COMPUTER APPLICATIONS

MCA511: Microprocessor and Its Applications

Time: Three Hours **Maximum Marks: 100**

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. How many memory locations can be addressed by a microprocessor with 14 address lines?
2. List the software and hardware interrupts of 8085.
3. What are the modes in which 8086 can operate?
4. State the function of direction flag in 8086.
5. When the 8086 microprocessor is in minimum mode?
6. Write an ALP program in 8086 to subtract numbers.
7. Write any three differences between 8086 and 8088.
8. Define Coprocessor?
9. What is the purpose of 8255 PPI?
10. What is USART?

PART- B (5 x 16 = 80 Marks)

11. a) Draw the Pin Diagram of 8085 and explain the functions of signal groups.

(OR)

b) Explain the machine cycles needed for the following instruction and draw the timing diagram for 8085.

(i) IN Port A (8)

(ii) STA 5000H (8)

12. a) With neat diagram explain the architecture of 8086.

(OR)

b) What do you mean by addressing modes? Explain memory and I/O related addressing modes with examples.

13. a) How 8086 interfaces with memories? Describe the procedure of interfacing static memories with 8086.

(OR)

b) Write notes on

(i) 8086 bus cycle (8)

(ii) 8086 address and data bus (8)

14. a) Draw and discuss the architecture of Pentium processor with the important features.

(OR)

b) With neat diagram explain the architecture of 8088 coprocessor.

15. a) How Keyboard/Display Controller 8279 interface with 8085.Explain.

(OR)

b) With neat diagram explain the block diagram of 8255A.

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