Reg. No. : ....

Name : ....

Fifth Semester B.Tech. Degree Examination, December 2015
(2013 Scheme)
13.505 : MICROPROCESSORS AND INTERFACING (R)

Time : 3 Hours   Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. What is meant by Address-Data Multiplexing in 8085 Microprocessor ? What are its advantages ?

2. Distinguish between I/O mapped I/O and memory mapped I/O.

3. Distinguish between AAA and DAA instructions in 8086 microprocessor.

4. How the ports of 8255 PPI are configured if the control word register contains 9 AH ?

5. What is meant by N-key roll over in 8279 ?

PART – B

Module – 1

6. Explain the internal architecture of 8085 microprocessor.   **20**
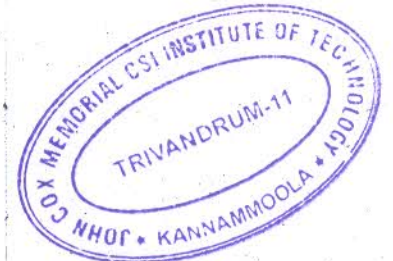
OR

7. Explain the data transfer instructions in 8085 microprocessor.   **20**

Module – 2

8. a) Explain the different addressing modes of 8085 microprocessor.   **10**

   b) Draw the timing diagram of the complete execution of the instruction MVI A, 07H.   **10**

OR

9. a) Explain the different interrupts in 8085 microprocessor.   **12**

    b) Describe how 1 MB memory can be addressed in 8086 microprocessor using 20 bit address lines. How 16 bit data in fetches from memory.   **8**

Module – 3

10. a) Explain the string instructions in 8086 microprocessor.   **15**

    b) What is an assembler directive ? How does it differ from a normal assembly language instruction ?   **5**

OR

11. Write an 8086 ALP to separate the prime numbers and composite numbers in an array of n numbers and form separate lists for each. Assume that n is available in location 1000 H and the array is stored from location 1001 H onwards. The list of prime numbers is to be stored from location 2000H onwards and the list of composite numbers is to be stored from location 3000H onwards.   **20**

Module – 4

12. Explain the operation of 8255 PPI in detail.   **20**

OR

13. Explain the operation of 8259A Interrupt Controller giving the structural block diagram.   **20**

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