

2062  
B.E. (Information Technology)  
Fourth Semester  
PCIT-401: Microprocessor and Assembly Language Programming

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) Write down names of all the registers available in 8085 microprocessor.
- b) Draw machine cycles for write operation with 8085 microprocessor?
- c) What will be the final address for 4KB of memory with initial address of 2500h?
- d) What is the role of stack for 8085 microprocessor?
- e) Write down names of all the interrupts available in 8085 microprocessor.

(5x2)

**UNIT - I**

II. Explain following instructions, each with an example.

ADD M, INX Rp, ORA R, ADI, LHL D

(10)

III. Interface 4 KB ROM and 1KB RAM with 8085 microprocessor. Write down address range for both the memory chips.

(10)

IV. a) Interface 8 LEDs with 8085 microprocessor. Draw complete circuit diagram and show address range.

b) Write down program to display 0 to 9 counter on 8 LEDs connected to output port of 8085 microprocessor.

(2x5)

**UNIT - II**

V. a) What is the role of the stack and subroutines? Write instructions associated with stack.

b) What are the vectored interrupts? What type of instructions are used to call and read status of the vectored interrupts?

(2x5)

VI. What is the maximum delay generated using 16 bit register pair and 2 MHz crystal method? Show calculations and write program for this delay subroutine.

(10)

VII. Write note on 8259 chip.

(10)

x-x-x