

Exam.Code:0922
Sub. Code: 6839

1058

B.E. (Information Technology)
Fourth Semester

ITE-472: 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:-
- If the memory chip size is 1024X8 bits, how many chips are required to make up 16 K byte memory?
 - How many pins are available in 8085 microprocessor IC?
 - How many interrupts are available in 8085 microprocessor? What are their types?
 - How subroutines are initialized and ended?
 - Which chip is used to expand pins of 8085 microprocessor? (5x2)
- II. Interface 3 chips of 1K bytes of RAM and 2 chips of 2K bytes of ROM to 8085 microprocessor. Specify address range for all chips and draw circuit diagram. (10)
- III. a) Interface 8085 microprocessor with 8 LEDs, 8 switches and draw block diagram. Generate addresses for the same.
b) Write instructions to display number 0,1,2,3,4 on common cathode seven segment display. (10)
- IV. a) Write a program to display 0 to 9 binary counter on 8 LEDs connected at port address 01 h.
b) Draw the timing diagram for the instruction MVI B, OFH. Assume the starting address for this instruction is 2000 H. (10)
- V. Write a program to generate a rectangular wave of ON Period 200 ms and OFF period 100 ms with clock frequency 2 MHZ. (10)

P.T.O.

(2)

- VI. a) How to enable and disable vectored interrupts? Write instructions to enable all vectored interrupts.
- b) What are subroutines? Write a small program to show concept of subroutine.
- c) Write a program to swap contents of register A and B using stack area. (4,2,2)
- VII. Write note on following Chip:-
- a) 8255
- b) 8259 (10)

x-x-x