## MICROPROCESSOR & ITS APPLICATIONS

Time : Three Hours                                   Maximum : 75 Marks

### SECTION-A (20 Marks)
Answer ALL questions
ALL questions carry EQUAL marks                ( 1 0 x 2  = 20)

1       What is a microcomputer?
2       List out the registers of 8085.
3     • Define accumulator.
4       What is the use of IN and OUT instruction?
5       Write a instruction to illustrate logic operations.
6       What are logical instructions?
7       Write a set of instruction to perform addition.
8       What is the 1 's compliment of FFH?
9       What is the use of 8255 PPI ?
10    Define binary counter.

### SECTION - B (25 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks ( 5 x 5 = 25)

1 1  a Explain the functions of the registers in the 8085.
                              OR
      b Define the term operation code and explain these term by writing instructions

12  a Explain the control signal for read and write operations.
                              OR
      b Explain the function of ALE control signal.

13  a What operations can be performed by using the instruction XRA A?
            Specify the status of Z and CY?
                              OR
      b Explain the function of compare instruction.

14  a Write a program to add two 8-bit numbers.
                              OR
      b Write an assembly language program to find the largest of the given number.

15  a Explain I/O mode operation of 8255 PPI.
                              OR
      b Write a note on the design of ring counter.

### SECTION - C 130 Marks)
Answer any THREE Questions
ALL Questions Carry EQUAL Marks ( 3 x 1 0  = 30)

16       Discuss briefly the concept of memory interfacing.

17       Draw the block diagram of 8085 architecture and explain its various
             functional block.

18       Write a program to sort the given set of numbers in 8085 microprocessor.

* 19     Explain with examples, the looping and counting operations of 8085.

20 Draw the block diagram of 8255 PPI and explain its various operating modes.
                  Z-Z-Z                              END