2019

MSc

4th Semester Examination

ELECTRONICS

PAPER – ELC-405 (Prac.)

[Microprocessor Programming]

Full Marks : 50

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

[Microprocessor Programming]

Answer any ***ONE*** question selecting it by a lucky draw.

1. Write an assembly language program using 8085 microprocessor to calculate ten sum of series of number. The length of ten series is in memory location $X_2X_1$00H and ten series begins from memory location $X_2X_1$01H. Consider ten sum to be 16 bit number. Store ten sum at memory location $Y_2Y_1$00H and $Y_2Y_1$01H.

2. Write an assembly language program in 8085 microprocessor to generate Fibonacci series up to 'N' terms. The length of the series 'N' is in memory location $X_2X_1$00H and ten series begins from memory location $X_2X_1$01H.

3. Write an assembly language program using 8085 microprocessor to add one 16 bit number with another 16 bit number stored at consecutive memory locations and store the result.

4. Write an assembly program using 8085 microprocessor to subtract one 8 bit number with another 8 bit number stored at two consecutive memory locations and store ten result in the next memory location.

5. Write an assembly language program in 8085 microprocessor to transfer 10 Numbers of 8 bit data from one memory to another memory block. Source memory block starts from memory location $X_2X_1$00H where as destination memory block starts from memory location $Y_2Y_1$00H.

6. Write an assembly language program using 8085 microprocessor to add one 8 bit decimal number with another 8 bit decimal number stored at two consecutive memory locations and store the result in the next memory locations.

7. Write an assembly language program using 8085 microprocessor to find the square of a number using 'Look up Table?

8. Write an assembly language program using 8085 microprocessor to multiply one 8 bit number with another 8 bit number stored at two consecution memory locations using repeated addition method.

9. Write an assembly language program to calculate the square root of a given number. Store the result in the consecutive memory locations if the number is a perfect square; otherwise an error message FEH in the result memory location.

10. Write an assembly language program to compute the sum of 10 natural umbers.
11. Write an assembly language program using 8085 microprocessor to find the smallest number in a series of data . The length of the data is given in memory location X and the series starts from X+1. Store the result in Y.

12. Write an assembly language program to arrange 'N' number of 8 bit data in ascending order. The length of the data 'N' is in memory location X050H and the data are stored in memory locations starting from X051H. Store the result from the memory locations X500H onwards.

Distribution of Marks

Flow chart	: 05 Marks
Assembly language program	: 10 Marks
Execution of the program	: 10 Marks
Result	: 05 Marks
Discussion	: 05 Marks
Viva – voce	: 10 Marks
Laboratory Note Book	: 05 Marks
Total	: 50 Marks