Assignment #1

## Total Marks: 100 Due Date: 15/11/2019

**Instructions:**

1. **Write assembly language codes for the given problems and submit only one file on FOITLMS.**
2. **Code should be written with proper comments.**
3. **Submissions will be checked for inter section plagiarism, so make sure you do your own code and do not share it.**
4. **Plagiarised assignments will be marked Zero and may be recommended for an F grade if required.**

**Question 1: [10]**

Write a program to separate the digits of a decimal number and store the digits in an array. Let the number= 9854

**Question 2: [10]**

Write a program that find the sum of numbers in between the range of maximum number and the minimum number in an array of 10 elements.

For example: Array: dw -22, 30,0, 20, -120,-10,-70,1000, 50,-100

Count: dw 778

**Question 3: [10]**

Write a program to find the sum of all elements of array. If an element of array is less than sum then replace that element value with **one** otherwise with **zero**.

For Example:

**Input** Array: dw -10, 25,0, -9, -124,10,90,20, -50,100

Sum: dw 0

**Output** Array: dw 1, 1,1, 1, 1,1,0,1, 1,0

Sum: dw 52

**Question 4: [10]**

Write a program to search a particular element from an array using binary search. If the element is found set AX to one and otherwise to zero.

**Question 5: [10]**

If (n1+n2) is less than or equal to (n1-n2) then copy (n1+n2) into variable Result; else copy (n1-n2) into variable Result.

Exit: n1 db 88

n2 db 52

result db ?

**Question 6: [10]**

Implement following expression in assembly language?

If (num1<149 && num1>-149)

result=70;

Else result=50

Where num1 and result are word type variables

**Question 7: [20]**

Implement following expression in assembly language?

If (num1<50 && num1>10)

Result=60;

Else If (num1<=10)

Result=10;

Else If (num1>=50)

Result=50;

End

Where num1 and Result are word type variables

**Question 8: [20]**

Implement following expression in assembly language?

If (num2<100 && num1>-100)

{

If (num1=num2)

Result=num1+num2;

Else result=num1

}

Else

Result=num2

Where num1, num2 and Result are word type variables