# Computer Organization and Architecture (EET2211)

# LAB III: Analyze and Evaluate the Array Operations using 8086 microprocessors.

Siksha 'O' Anusandhan (Deemed to be University),

Bhubaneswar

Branch:		Section:	
S. No.	Name	Registration No.	Signature

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Remarks:

**Teacher's Signature** 

#### I. OBJECTIVE:

- 1. Find the largest/smallest number (8-bit number) from a given array of size N.
- 2. Arrange the elements (8-bit number) of a given array of size N in ascending/descending order.

#### II. PRE-LAB

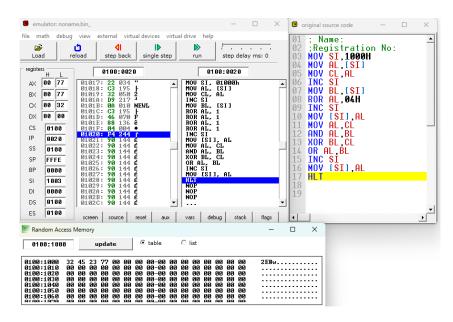
For each objective in prelab describe the following points:

- Write the assembly code with a description (ex. Mov ax,3000h ax<-3000h)
- Examine and analyze the input/output of assembly code.

#### III. LAB

Note: For each objective do the following job and assessment:

- Screenshots of the Assembly language program (ALP)
- Observations (with screenshots)



**Fig. 1.** Execution result of addition using immediate and direct addressing mode of 8086 emulator.

From this result, I have observed.....

### **Observation Table:**

Input:

S1. No.	Memory Location	Operand (Data)
1		
2		
•••		

**Output:** 

Output:					
S1.	Memory	Operand			
No.	Location	(Data)			
1					
2					
•••					

# IV. CONCLUSION

## V. POST LAB

- 1. What are the directives available for data declaration in 8086 microprocessors?
- 2. State the difference between END, ENDP, and ENDS directives.
- 3. Find the sum and average of a given array of size N.