

National University of Computer and Emerging Sciences

Lab Manual

Computer Organization and Assembly Language



Lab 03

Instructor

Haiqa Saman,
Sarosh Humayun

Class

CS3

Sections

D

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Fast School of Computing

FAST-NU, Lahore, Pakistan

ACTIVITY 1:

Give the value of the zero flag, the carry flag, the sign flag, and the overflow flag after each of the following instructions:

	ZF	CF	SF	OF
mov al, 7Fh				
mov bl, 05h				
add al, bl				
mov ax, 0x1254				
mov bx, 0x0FFF				
add ax, 0xEDAB				
add ax, bx				
add bx, 0xF001				

ACTIVITY 2:

Write a program which calculates the square of a number in a memory variable. Display the result in accumulator (AX).

ACTIVITY 3:

Write a program which finds the factorial of a given integer without the use of MUL command.

ACTIVITY 4:

Write a program which determines the largest number from the given array.

array: dw 111, 999, 888, 888, 11, 99, 88, 88, 1, 9, 8, 8

ACTIVITY 5:

Modify your program in Activity 4 to find the top two numbers from the given array.

REFERENCES

- ["http://www.dosbox.com/download.php?main=1"](http://www.dosbox.com/download.php?main=1)
- <http://sourceforge.net/projects/nasm>
- <http://www.nasm.us/>
- <http://www.programmersheaven.com/download/21643/download.aspx> (AFD)