



COMSATS University Islamabad (Lahore Campus)

## Lab-Terminal

Spring 2024

Course Title:	computer organization and assembly language	Course Code:	CSC325	Credit Hours:	3(2,1)
Course Instructor:	MUNAWAR UL ZAMAN	Programme Name:	BCS		
Due Date:	31 -5- 2024	Maximum Marks:		25	
<b><u>Important Instructions / Guidelines:</u></b>					

### Lab-Terminal Examination

#### Question No 1.

Marks: 15

CLO: <6>; Bloom Taxonomy Level: <creating>

Write a program that has two strings STRING1 and STRING2, a nonnegative decimal integer N,  $0 \leq N \leq 40$ , inserts STRING1 into STRING2 at position N bytes after the beginning of STRING2, and displays the resulting string. You may assume that  $N \leq \text{length of STRING2}$  and that the length of each string is less than 40

#### Algorithm

Write a procedure INSERT that will insert a string STRING1 into a string STRING2 at a specified point.

#### Input

SI offset address of STRING 1  
DI offset address of STRING2  
BX length of STRING 1  
CX length of STRING2  
AX offset address at which to insert STRING 1

#### Output

DI offset address of new string  
BX length of new string

The procedure may assume that neither string has zero length, and that the address in AX is within String2.

#### Question No 2.

Marks: 10

CLO: <5>; Bloom Taxonomy Level: <Applying>

Your IBM personal computer is capable of handling characters, all these characters can be used within your computer system. By using emu8086, write a program to display the entire- IBM character set. And Write a procedure capital, small and numbers to display capital, small and numbers on the screen.