National University of Computer and Emerging Sciences, Lahore Campus

	Course:	COAL	Course Code:	EE2003
	Program:	BS(CS,DS)	Semester:	Fall 2022
	Duration:	1 Hour	Total Marks:	30
	Paper Date:	26-11-2022	Page(s):	4
	Section:	All	Roll No.	
	Exam:	Midterm-II	Your Section:	

Instruction/Notes:	**This is an open notes/book exam. Sharing notes and calculators is NOT ALLOWED.** All the answers should be written in provided space on this paper. Rough sheets can be used but will not be collected and checked. In case of any ambiguity, make reasonable assumptions. Questions during exams are not allowed.

Question 1 [CLO 1,2,3,5] [15 Marks]:

Write a subroutine INSERT that will insert a string STRING1 into the string STRING2 at a specified point.
The parameters to the subroutine are
offset address of STRING 1
offset address of STRING2
length of STRING 1
length of STRING2
offset address at which to insert STRING 1
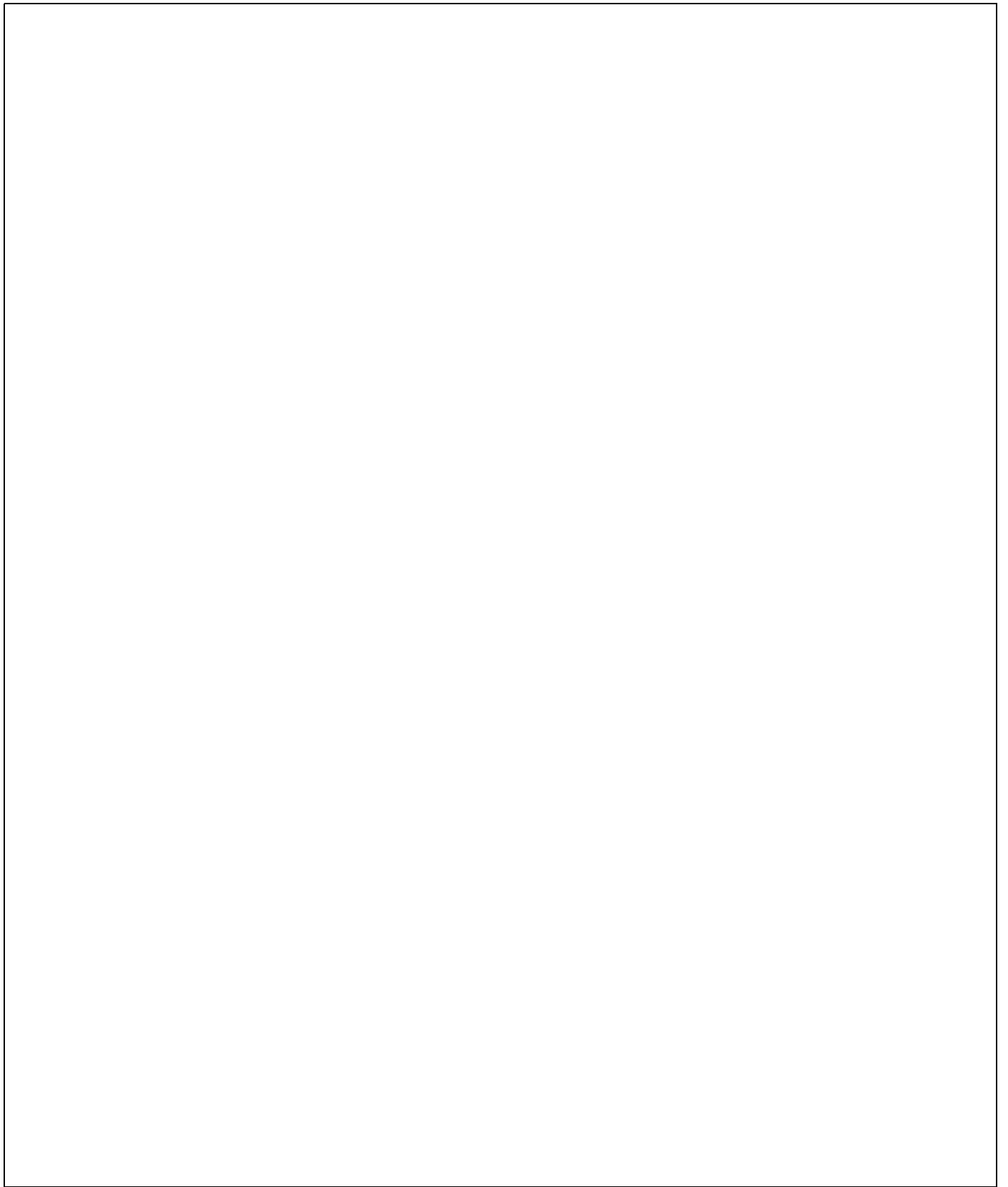e.g.,
STRING1: db 'abcdefgh'
STRING2: db "123456"
If the offset address at which to insert the STRING1 is 2, then after the execution of the subroutine, STRING2 will become
STRING2: db: "12abcdefgh3456"
Assume that there is unlimited space allocated for STRING2 and the offset at which to insert the STRING1 is within the length of STRING2.
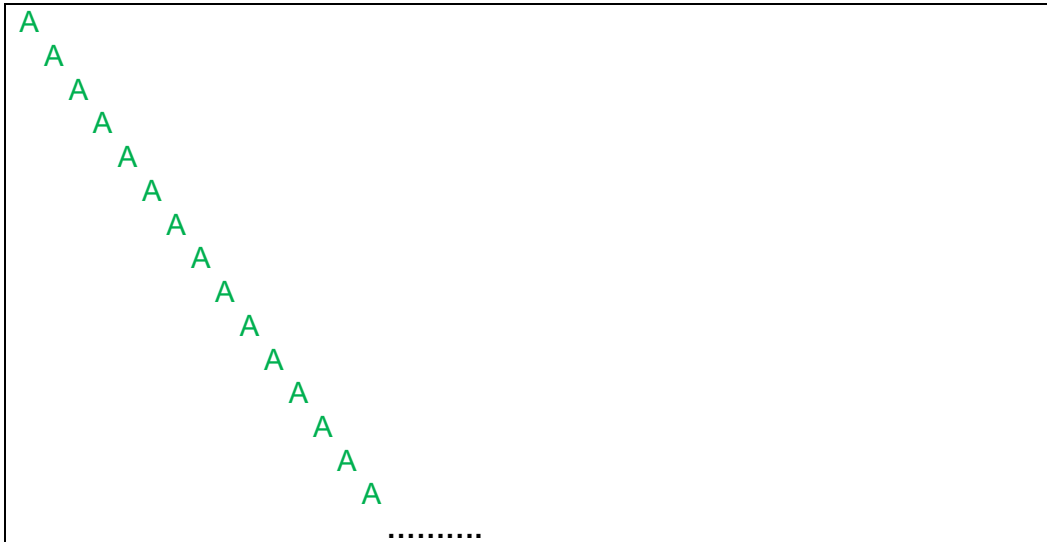Do this question using STRING INSTRUCTIONS only.

Write Your Code here:

Question 02 [CLO 1,2,3,5] [15 Marks]:

Write a subroutine which takes a character as a parameter and print that character in a diagonal form on the screen. The character should be blinking, the foreground color should be Green with high intensity and background color should be white.

Sample Output if the character in parameter is A

```
A
  A
    A
      A
        A
          A
            A
              A
                A
                  A
                    A
                      A
                        A
                          A
                        ..........
```

Write your Code here: