## **Green University of Bangladesh**

## Department of Computer Science and Engineering Lab Final Examination, Fall 2022

Course Code: CSE 104

Course Title: Structured Programming Lab

Full Marks: 30

Time: 1.5 Hour

Answer all questions of the following:

[The values on the right-hand side indicate marks allocated for that question only and the [CO#] represents the mapping of the question with one of the expected outcomes of the course.]

1.	Write a program that takes an array input from user, checks if all elements of the array are divisible by 3. If so, check if all are divisible by 9 as well.  Sample input and output:	CO1	4+2	Code and Viva
	Input array size: 7 Input array elements: 4 2 56 12 4 9 7 Not divisible by 3.			
	Input array size: 5 Input array elements: 3 6 9 12 15 Divisible by 3. Not divisible by 9.			
	Input array size: 4 Input array elements: 9 18 27 36 Divisible by 3. Divisible by 9.			
2.	Write a program that takes input rom user, reverse it and check if it is palindrome or not.  Sample input and output: Input number: 235 This is not palindrome.	CO1	4+2	Code and Viva

	Input number: 535 This is palindrome.				
3.	Write a program to print following pattern:  ***  ***  ***  ***  ***	CO1	4+	Co	ode nd iva
4.	Take an input string, take another letter from user. Check whether the letter appears in the string or not. If so, replace the letter with another given letter.  Sample input and output: Input string: This is X. Input letter to find: X. Input the replaced letter: Y String after replacement: This is Y.	CO1	4-	, \	ode and Viva
5.	Input string: This is X. Input letter to find: Y. Item not found!				
<b>J</b> .	Find sum of n Fibonacci terms using recursion.  Sample input and output: Input n: 6 Sum: 12	CO	1	4+2	Code and Viva