

AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH

Faculty of Science and Technology Department of Computer Science CSC 1102 Introduction to Programming

Mid Term Assignment Spring 2021-22

Total Marks: 30 Course Teacher: MD.NAZMUL HOSSAIN Time: 1 week

General Instructions:

- 1. Answer all the questions (Handwritten).
- 2. Use pencil / pen to write the answer and to draw diagrams.
- 3. Use AIUB Assignment Cover Form (download from portal) as cover page.
- 4. Prepare yourself for viva what you have written before submitting the assignment.
- 5. Complete the assignment with viva preparation by Sunday (20 March 2022)
- 6. Submission Guidelines:

Time: Lab Class Time Place: Lab Class Room

***** Please don't try to Copy & Paste otherwise if caught in VIVA then he/she will get 0 out of 30.

1. Briefly Explain the following keywords:

- a. int
- b. char
- c. float
- d. bool
- e. string
- f. const
- g. break
- h. continue

2. Explain following questions with proper example:

- a. What is Pseudo Code? Why we need Pseudo Code?
- b. What is Flowchart? Why we need Flowchart?
- c. What is Function? Why we need Function?
- d. What is Array? Why we need Array?
- e. What is Pointer? Why we need Pointer?
- f. Write all the operator according to the precedence with proper description in a Table.
- g. Write all the functions of the string with proper description & Example in a Table.

3. Write the pseudocode & Draw the flow chart accurately for the following problems.

- a. If a given number is even or odd
- b. If a given number is positive or negative
- c. If a given number is leap-year
- d. The largest number between two given number
- e. Sum of all the natural number from 1 to a given number

4. Write code for the following problems using C++ programming language

- a. Number of days is taken from user input, write a C++ program that converts the number of days into years, weeks, and remaining days.
- b. Write a C++ program which will take an integer value from the user and output the value after incrementing it twice and again after decrementing it thrice.
- c. Take n number of values in an array and display in the same order and reverse order by writing a C++ program.
- d. Take n number of values in an array and find the number of duplicate values entered in the array by writing a C++ program.
- e. Write a program in C++ to find the area of square, rectangle and triangle of any number using the function.
- f. Write a program in C++ to check whether a number is a prime number or not using the function.
- g. Write a program in C++ to get largest element of an array using the function.