BRAC University (Department of Computer Science and Engineering)
Summer 2022 Semester

CSE-220 (Data Structure)
Section 14

Quiz 2
7July, 2022

Student ID:
Name:

Full Marks: 20
Duration: 25 minutes

[No extra sheet will be provided. Write your answer to the questions in this answer script.]
[Marks allocated to each question is given in the statement of corresponding question.]

Read the questions carefully
Answer all the questions

1. Convert the following infix expressions into postfix expressions and show the steps. You also need to check if the parentheses are balanced while converting.
   a. A/(C-D)*(I-K))
   b. 5*6-8+(4^(3/1))2*9*7

   For example:

   a+b*c+(d*e) has their parenthesis balanced and therefore can be converted into postfix expression. Your output will be abc*+de*+ in this case.

   a+b*c+(d*e do not have their parenthesis balanced and therefore can not be converted into postfix expressions. Your output would be "Invalid" in this case.

   Checking if the parentheses of the expression are balanced and then converting them is **STRICTLY FORBIDDEN**. Perform both tasks simultaneously.
   YOU DO NOT NEED TO WRITE ANY CODE. (10)

2. Evaluate the following postfix expressions using stack. Show the steps.
   a. 2536+**5/2-
   b. ab+cd*e/-

   YOU DO NOT NEED TO WRITE ANY CODE. (10)