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Daffodil International University
Department of Computer Science & Engineering
Fall 2024

Quiz 2

Course Title: Data Structure
Course Code: CSE123

Time: 40 minutes
Marks: 15

Answer all the questions:

1) You are given the following infix expression:

$$A + B * (C \wedge D - E) \wedge (F + G / H) - I$$

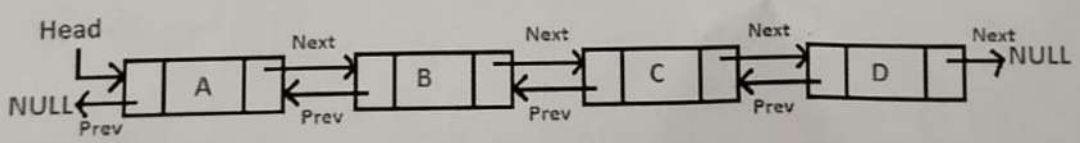
(a) Convert this infix expression to postfix notation using the stack-based algorithm. Show each step of the stack and the output as the algorithm proceeds.

(b) After converting the infix expression to postfix, evaluate the resulting postfix expression using a stack, assuming the following values for the operands:

$$A = 5, B = 2, C = 3, D = 2, E = 6, F = 1, G = 8, H = 4, I = 7$$

[6+4]

2) Following is a linked list having four nodes. Each node has a data part containing a character type data and two pointers pointing to its two neighbor nodes. Show the code segments line-by-line to implement this linked list in C language.



[5]

Thank you for your participation