Assignment1
(Introduction to LEX/Yacc)
06/01/2023

Time: 1 hr

Question:

Implement the calculator as below, and terminate when the user inputs the 'exit' command:

    user: 3 * (4.5 + 5.5)
    calc: 30
    user: x = 3 * (4.2 + 5.8)
    user: y = 5
    user: x
    calc: 30
    user: y
    calc: 5
    user: x + 2*y
    calc: 40
    user: x+2*y == 3*x-10*y
    calc: yes
    user: x+2*y+z
    calc: invalid input
    user: postfix(a+b*c)
    calc: abc*+
    user: prefix(a+b*c)
    calc: +a*bc
    user:exit
    calc:exiting…

Instructions:
1. Operator supported: +,-,*,/,%,^,unary minus,==.
2. Two special keyword postfix & prefix to get postfix & prefix form of a infix expression.
3. Parenthesis supported.
4. Input can also be float.
5. Give proper error message in case of invalid/wrong input.

Marks break-up:
1. Correct Lex implementation → 10
2. Correct Yacc implementation → 25
3. Test cases(10 cases) → 50
4. Error handling → 15

Partial marks will be awarded where applicable.