R V College of Engineering, Bengaluru-59

(Autonomous Institution affiliated to VTU, Belagavi)

Department of Computer Science and Engineering

COMPILER DESIGN LAB (18CS63)

1. a) Write a LEX program to count number of words, lines, whitespaces and characters.
1. b) Write a YACC program to recognize strings of the form $a^n b^{n+m} c^m$, n,m>=0.
2. a) Write a LEX program to count number of Positive & negative integers and Positive & Negative fractions.

2. b) Write a YACC program to validate and evaluate a simple expression involving operators +,- , * and /.

3. a) Write a LEX program to count the number of comment lines in a given C program. Also eliminate them and copy that program into a separate file.

3. b) Write a YACC program to recognize a nested (minimum 3 levels) FOR loop statement for C language

4. a) Write a LEX program to recognize and count the number of identifiers, operators and keywords in a given input file.

4. b) Write a YACC program to recognize nested IF control statements(C language) and display the number of levels of nesting.

5. Write a C program to implement a Shift Reduce parser for a given grammar and generate the parsing table by parsing the given string.
6. YACC program that reads the C statements from an input file and converts them into quadruple three address intermediate code.
7. Write a YACC program that identifies Function Definition of C language
8. Write a YACC program that generates Intermediate Code for valid Arithmetic Expression.
9. Write a YACC program that generates Intermediate Code for FOR Loop.
10. Write a YACC program that accepts a regular expression as input and produces its parse tree as output.(Either left or right tree)

HOD, Dept. of CSE

Lab incharge