- 1. Program for Tokenization (counting the no of characters, lines, spaces, words, tabs, integer, float, Sum of the given integer & float etc...).
- 2. Program to implement Scanner using C.
- 3. Program to implement Scanner application using LEX tool.
- 4. Program to identify the Octal or Hexadecimal number using lex tool.
- 5. Program to capitalize the input string using LEX.
- 6. Program to find real precision numbers using lex.
- 7. Program to count the number of vowels and consonants in a given string using Lex.
- 8. Program to count no of:
  - a) +ve and -ve integers
  - b) +ve and -ve fractions
- 9. Program to count the no of comment line in a given C program. Also eliminate them and copy that program into separate file using Lex.
- 10. Program to count the no of 'scanf' and 'printf' statements in a C program. Replace them with 'readf' and 'writef' statements respectively using lex.

## TOPDOWN PARSERS:

- 11. Program to implement Recursive descent parser for the given grammar.
- 12. Program to find FIRST elements for the given grammar.
- 13. Program to find FOLLOW elements for the given grammar.
- 14. Program to construct predictive LL1 parsing table.

## **BOTTOM UP PARSERS:**

- 15. Program to implement Parser using Yacc.
- 16. Program to implement calculator using Yacc tool.
- 17. Program to recognize nested IF control statements and display the levels of nesting.
- 18. Program to recognize strings 'aaab', 'abbb', 'ab' and 'a' using grammar (anbn, n>=0)
- 19. Program to find the closure collections.
- 20. Program to construct Goto
- 21. Program to implement three address code generation (Triple generation).
- 22. Program for code generation.(assembly language code generation)

23. Program to perform optimization of the given code byCode optimization

## Sample Program for CC Lab Record