**CL-I assignment list**

1. Write a lex program to find character, word and line count from multiple files. [Hint: Use yywrap() to handle EOF condition of first file and connect to second file.]\*
2. Write a lex program for 1. Counting the number of vowels in the file.

2. Counting the total number of words in the file.

3. Counting the total number of lines in the file.

4. Converting decimal numbers found in file to binary.\*

1. Write a lex program for Checking well formness of parenthesis\*
2. Write a lex program for

1. Identifying preprocessors, headers, keywords, special symbols, relational operators, arithmetic operators, identifiers, integers, float, string from input C file.

2. Identifying multiline comments.

3. Error reporting: Unterminated comments and strings, Invalid identifiers, Invalid symbols.

4. Creating a symbol table.\*

1. Write lex and yacc program for parsing English statements.\*
2. Write a lex and yacc programs to parse following type of statements

1. Preprocessor statements

2. Conditional and loop statements

3. Functions- printf,scanf.

4. Relational operators and keywords\*

1. Write a lex and yacc program for parsing C language ( Consider subset of C: if else, while, assignment statements)\*
2. Write a lex and yacc program for parsing C language ( Consider subset of C: if else, for, assignment statements)\*
3. Write a lex and yacc program for parsing C language ( Consider subset of C: if else, switch, assignment statements )\*
4. Implement desk calculator along with symbol table generation
5. Write a program to generate three address code for expression grammar, if else and while statements in C.\*
6. Write a program to generate three address code for expression grammar, if else and for statements in C.\*
7. Write a lex program to remove single and multiple line comments using state concept.
8. Write a lex program that capitalizes all reserved words outside the comments in a C program.\*
9. Write a program to add error recovery routine or scheme for lex program to enable it to continue to look for tokens in presence of errors.
10. Write a Yacc program that will take arithmetic expression as input and produce corresponding postfix expression as output and also evaluate that expression.
11. Write a yacc program “desk calculator” which remind, store and clear the result. [Hint: use file to store the value of expression]
12. Write a yacc program “desk calculator” that will evaluate Boolean expressions.
13. Write a lex and yacc program for parsing .asm file( assembly language).\*
14. Write a lex and yacc program for parsing SQL statements which are in file [insert , update, select and delete statements]
15. Write a lex and yacc program for parsing class definition in java [which may include implementation of interface and inheritance].\*
16. Write a lex and yacc program for parsing html file along with counting opening and closing tags.
17. Implement code optimization on target code [Peephole optimization]\*
18. Implement code optimization on IC [common subexpression elimination, constant folding and propagation (compile time evaluation), Code Hoisting for loop invariant statements.]\*
19. Write a program to generate target code for 1. Arithemetic operations

2. If-else and while statements from intermediate code\*