

**MUTHOOT INSTITUTE OF SCIENCE AND TECHNOLOGY, ERNAKULAM – 682 308**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

CSL 411 COMPILER LAB		
Sl.No	NAME OF THE EXPERIMENT	SLOT
CYCLE 1		
1	Design and implement a lexical analyzer for given language using C and the lexical analyzer should ignore redundant spaces, tabs and new lines.	Week 1
2	Write a LEX program to	Week 2
	a) Display the number of lines, words and characters in an input text.	
	b) Find out total number of vowels and consonants from the given input sting.	
	c) Implementation of Lexical Analyzer using Lex Tool.	
3	Generate YACC specification for a few syntactic categories.	Week 3
	a) Program to recognize a valid arithmetic expression that uses operator +, −, * and /.	
	b) Program to recognize a valid variable which starts with a letter followed by any number of letters or digits.	
	c) Implementation of Calculator using LEX and YACC	
CYCLE 2		
4	Write program to find $\epsilon$ – closure of all states of any given NFA with $\epsilon$ transition.	Week 4
5	Write program to convert NFA to DFA.	Week 5
6	Construct a recursive descent parser for an expression.	Week 6
7	Write program to find First and Follow of a given grammar	
8	Develop an operator precedence parser for a given language.	Week 7
CYCLE 3		
9	Write a program to generate three address code for the given input	Week 8
10	Write a program to generate quadruple and triple from three address code.	
11	Write a program to perform constant propagation.	Week 9
12	Implement the back end of the compiler which takes the three address code and produces the 8086 assembly language instructions that can be assembled and run using an 8086 assembler. The target assembly instructions can be simple move, add, sub etc	Week 10