

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY
FACULTY OF TECHNOLOGY AND ENGINEERING
Smt. Kundanben Dinsha Patel Department of Information Technology

Subject Name: Language Processor
Subject Code: IT 443

Semester : 7th
Academic year: July-Dec 2022

Practical List

Instructions:

- I. Student should have knowledge of C to perform practical.
- II. Student should maintain soft copy of all the programs performed during lab sessions.
- III. Files must be written in ISO file format.

Sr. No.	Aim of the Practical	Hours	COs
1.	Use Macro features of C language and demonstrate the following types of macro with example. 1) Simple Macro 2) Macro with Argument 3) Nested Macro	02	1
2.	Write a 'C' program and generate the following codes for the program. 1. Preprocessed code 2. Assembly Code 3. Object Code 4. Executable Code	02	1
3.	Write a Lexical Analyzer using Lex or Flex utility of UNIX for following: 1. A lexer to print out all numbers from a given file. 2. A lexer which classifies tokens as words, numbers or "other". 3. Write a Lex Program to count number of vowels and consonants. 4. A lexer which adds line numbers to the given file. 5. A lexer which attempt to extract only comments. 6. A lexer to do word count function of wc command in UNIX.It prints the number of lines, words and characters in a file.	04	1,2
4.	Implement Lexical analyzer for C language using lex.	04	1,2
5.	Write a program which enters Transition Table, accepting state and input string as input and checks whether the given string is accepted or not.	02	3
6.	Explore the JFLAP Tool to demonstrate the deterministic finite automata for following also find its Regular expression. 1)Odd number of 0's or Even number of 1's 2)Odd number of 0's and Even number of 1's	04	1,2
7.	Create Google Form for the student registration with student ID, Name, Email Address, Mobile number etc. Provide Regular expression in every field of the Google Form.	02	1,2
8.	Write Generation Of Three Address Code in C Programming.	02	3

9. Write program to implement Recursive Descent Parser for the given grammar.

$E \rightarrow T + E \mid T$

$T \rightarrow F * T \mid F$

$F \rightarrow id$

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| 10. | Demonstrate the parsing technique using ANTLR Tool. | 02 | 3 |
| 11. | Write a Parser using YACC or utility of UNIX for following:
Write a Program for a simple desk calculator using YACC Specification. | 04 | 3 |