## **Syllabus**

#### **List of Programs as Assignments:**

#### 1. Lab Assignment No: 1

Objective: To Understand the concept of tokens.

Q1. C program to count white spaces, numbers, words in a file./

## 2. Lab Assignment No: 2

Objective: To Understand the process of identification of tokens.

Q1. C program to design Finite automata to identify different tokens(identifiers, constants, operators, etc.).

#### 3. Lab Assignment No: 3

Objective: To have a brief Understanding to lex programming.

- Q1. Count number of a's in given string.
- Q2. Identify different patterns like aa, ab, not containing a, etc. in given string.

# 4. Lab Assignment No: 4

Objective: To Understand lex programming tool.

Q1. Lex program to Identify all tokens of C programs.

## 5. Lab Assignment No: 5

Objective: To Understand and Implement structure of any programming language.

Q1.Design and Code individual programming code with all possible tokens in programming language.

#### 6. Lab Assignment No: 6

Objective: To Understand lex programming tool in depth.

- Q1. Starting and ending with 'a'.
- Q2. # a's divisible by 2 or b's divisble by 3.
- Q3. 4th Symbol 'a' from RHS.
- Q4. Output code after removing white spaces and comment.

#### 7. Lab Assignment No: 7

Objective: To Understand and Implement Parser using yacc.

Q1. Build parsers using yacc for L(G)= $\{a^nb^n \mid n \ge 1\}$  over  $\{a,b\}$ 

#### 8. Lab Assignment No: 8

Objective: To Understand and Implement parser for different grammars.

Q1.Build Parser using yacc for L(G) where rule set of G is  $\{S \rightarrow aSb, S \rightarrow bSa, S \rightarrow c\}$  over  $\{a,b,c\}$ .

#### 9. Lab Assignment No: 9

Objective: To Understand and Implement parser coding.

Q1. Build parser using yacc to convert the infix expression to postfix expression.

#### 10. Lab Assignment No: 10

Objective: To Understand and Implement parser coding.

- Q1. Build a calculator in yacc which takes expression in postfix notation.
- Q2. Build parsers using yacc to convert the prefix expression into the postfix expression.

## 11. Lab Assignment No: 11

Objective: To Understand and Implement parser for validation and operations.

- Q1. Build parsers using yacc to validate the C statements. E.g int a,b,c;(valid)
- Q2. Build calculator in yacc.

## **Books recommended:**

## **Text books**

lex&yacc (2nd ed.) :O'Reilly & Associates, Inc. Sebastopol, CA, USA ©1992 . **(T1)** 

## Reference books

Lex &Yacc:O'Reilly & Associates, Inc. Sebastopol, CA, USA ©1992. (R1)

#### **Course Evaluation:**

Day to day progressive evaluation, Lab Quizzes, Surprise Tests, Online Lab performance and Viva Voce

# Gaps in the syllabus (to meet Industry/Profession requirements):

## POs met through Gans in the Syllabus:

# Topics beyond syllabus/Advanced topics/Design:

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# **Course Outcome (CO) Attainment Assessment Tools and Evaluation Procedure Direct Assessment**

Assessment Tools	% Contribution during CO Assessment			
Continuous Internal Assessment	60			
Semester End Examination	40			

Continuous Internal	% Distribution				
Assessment					
Day to day performance & Lab files	30				
Quiz(zes)	10				
Viva	20				

Semester End Examination	% Distribution		
Examination Experiment	30		
Performance			
Quiz	10		

<b>Assessment Components</b>	CO1	CO2	CO3	CO4	CO5
Continuous Internal Assessment	√	V	V	V	1
Semester End Examination			V		