S. B. JAIN INSTITUTE OF TECHNOLOGY, MANAGEMENT & RESEARCH, NAGPUR.

(An Autonomous Institute, Affiliated to RTMNU, Nagpur)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

"*To become a center for quality education in the field of computer science & engineering and to create competent professionals.*"

TAE1 Report (2024-25)

Compiler Design-PECCCS601T

Name of the Student: Chaitali Domke

USN no: CS23D009

Semester: 6th Section: C

Title of Problem: Construction of LL(1) parser

Date of Submission: 25/01/2025

Marks: -

Criteria	Total Marks	Rubrics	Y/N	Marks Awarded
Construction of Parser	6	Explanation of Output=1		
		Parsing of Invalid String =1		
		Parsing of valid string =1		
		Construction of Parser =1		
		Understanding of Parsing Technique =1		
		Understanding of tool-1		
		Incorrect=0		
Report Submission	4	Format Adherence:- Excellent=4 Better=3 Good=2 Average=1 Not in format=0		
Total				

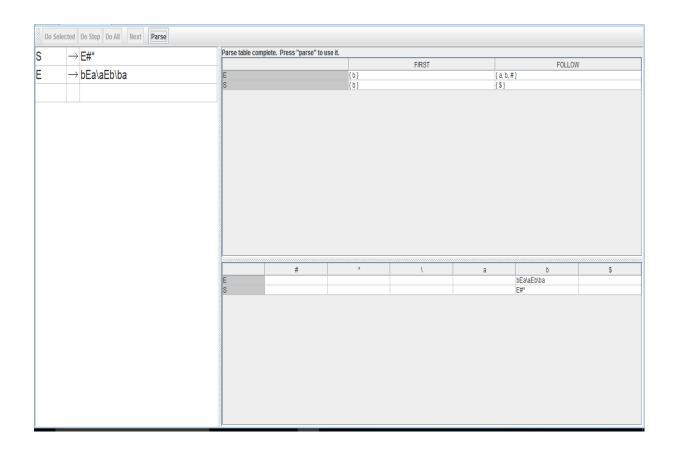**Sign of Student**   **Sign of Subject In charge**

Format of TAE1 Report

1) **Problem Statement: -** Construct LL(1) Parser for the following grammar in JFLAP tool.

   S-->E#*
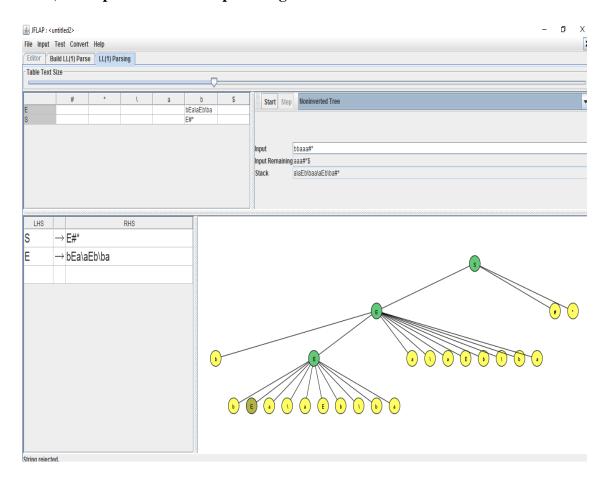   **E-**->bEa\aEb\ba

2) **Theory of LL(1) Parser: -**

3) **Computation of FIRST and FOLLOW** (in case of LL(1) Parser)

4) Construction of Parsing Table: -

Do Selected	Do Step	Do All	Next	**Parse**

S	→	E#*
E	→	bEa\aEb\ba

Parse table complete. Press "parse" to use it.

	FIRST	FOLLOW
E	{ b }	{ a, b, # }
S	{ b }	{ $ }

	#	*	\	a	b	$
E					bEa\aEb\ba	
S					E#*	

5) **Acceptance of the sample string: -**

6) **Rejection of the sample string: -**

Editor | Build LL(1) Parse | LL(1) Parsing

Table Text Size

	#	*	\	a	b	$
E					bEa\aEb\ba	
S					E#*	

Start | Step | Noninverted Tree ▼

Input: aa#*

Input Remaining: aa#*$

Stack:

LHS	RHS
S	→ E#*
E	→ bEa\aEb\ba

String rejected

7) **Explanation of output and Conclusion:**