

IA Test – I

Course Title: COMPILER DESIGN

Code: 18CS62

Max. Marks: 25 marks

Duration: 1Hr15 Mins

Date: 31/05/2021

Instructions: 1. Answer ANY FIVE full questions and each question carries five marks.

Q. No.		[L]	[CO]	[PO]	[M]
1	Define Regular definition. Construct the transition diagram to recognize the tokens a) Relational operator b) unsigned number (int and float)	1	1	1	5
2	With neat diagram demonstrate the interaction between lexical Analyzer and the parser.	2	1	1	5
3	Design a Lexical Analyzer in C++ to recognize the stream of tokens of C identifiers. Assume the suitable C++ functions to read the character, failure and retract(if necessary) operations.	3	1	3	5
4	Define Left Recursion and Eliminate the Left recursion for the following grammar $S \rightarrow A$ $A \rightarrow Ad \mid Ae \mid aB \mid ac$ $B \rightarrow bBc \mid f$	2	1	3	5
5	Explain Left factoring with an algorithm ? Eliminate the Left factor from the following grammar $S \rightarrow iEts \mid iEtSeS \mid a$ $E \rightarrow b$	2	1	3	5
6	Define FIRST and FOLLOW set symbols. Compute FIRST and FOLLOW set symbols for the following grammar $S \rightarrow ACB \mid CbB \mid Ba$ $A \rightarrow da \mid BC$ $B \rightarrow g \mid \epsilon$ $C \rightarrow h \mid \epsilon$	3	1	3	5
7	Write an algorithm to construct a Predictive parsing table.	2	1	5	5