Department of Information Technology

LESSON PLAN

Subject: Compiler Design **Subject code: OE-IT-T303A**

Session: 2022-23 **Semester: VII**

S.No.	Unit	Topic	No. of Lectures required	CO Covered	Method/Remarks
1	1	Analysis of the source program	1	CO1	Board
2	1	Phases of a compiler	3		Board
3	1	Grouping of Phases	1		Board
4	1	Compiler construction tools			Board
	1	Bootstrap and Cross Compiler			Board
5	1	Role of Lexical Analyzer	1		Board
6	1	Input Buffering			Board
7	1	Specification of Tokens	1		Board
8	1	Lexical Analysis –Regular Expression			Board
9	1	Introduction to Finite Automata and Regular Expression	1		Board
10	1	Conversion of Regular Expression to NFA	1		Board
11	1	Language for specifying Lexical Analyzers	1		Board
12	1	Implementation of a Lexical Analyzer	1		Board
1	2	Role of the Parser	1	CO2	Board
2	2	Writing Grammars			Board
3	2	Context-Free Grammars			Board
4	2	Shift-reduce Parser	1		Board
5	2	Operator Precedence Parsing	1		Board
6	2	Top Down Parsing	1		Board
7	2	Predictive Parsers	1		Board
8	2	LR Parsers: SLR Parser	1		Board
9	2	Canonical LR Parser	1		Board
10	2	LALR Parser	1		Board
11	2	Implementation of LR Parsing Tables	1		Board
12	2	Symbol Table	1	CO1	Board/PPT
1	3	Intermediate languages,	1	CO3	Board/PPT

		Declarations,			
2	3	Assignment Statements	1		Board/PPT
3	3	Boolean Expressions	1		Board/PPT
4	3	Case Statements	1		Board/PPT
5	3	A simple Code generator from DAG	1	CO4	Board/PPT
6	3	Issues in the design of code generator	1		Board/PPT
7	3	The target machine			Board/PPT
8	4	Peephole Optimization	1		Board/PPT
10	3	Error Handling- Type checking	1		Board/PPT
1	4	Principal Sources of Optimization	1	CO3	Board/PPT
2	4	Optimization of Basic Blocks	1		Board/PPT
3	3	DAG representation of Basic Blocks	1		Board/PPT
4	4	Introduction to Global Data Flow Analysis	1		Board/PPT
5	3	Runtime Storage management	1	CO4	Board/PPT
6	4	Storage Organization			Board/PPT
7	4	Static Storage Management	1		Board/PPT
8	4	Heap Storage management	1		Board/PPT
9	4	Access to non-Local Names	1		Board/PPT
10	4	Parameter Passing	1		Board/PPT