PRN:		Course Code:	CST2502

Third Year **CSE** End Semester Examination Winter 2023

Compiler Design

Day and Date: Friday, 01/12/2023 Max Marks: **100**

Time: 10.30 am to 1-30 PM Duration: **03**hrs

Instructions: All questions are compulsory.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	Define deterministic finite automata with example	08	L1	CLO1
	b)	Illustrate phases of compiler with diagram.	08	L2	CLO1
		OR			
	b)	Compare compiler & interpreter.	08	L5	CLO1
Q.2		**Attempt the following**			
	a)	Show LL (1) parsing step wise with example	08	L1	CLO2
	b)	Explain top down parsing in detail	08	L2	CLO2
		OR			
	b)	What is left factoring and how to eliminate common prefixes?	08	L1	CLO2
Q.3		**Attempt any two from the following**			
	a)	Construct an SLR parsing table for the given context-free grammar – S–>cAd A–>ab|e	08	L3	CLO2
	b)	Illustrate shift reduce parser with example.	08	L2	CLO2
	c)	Illustrate handle pruning in detail.	08	L2	CLO2
Q.4		**Attempt any two from the following**			
	a)	Evaluate construction of LR 1 items with example.	08	L5	CLO3
	b)	Construct an CLR parsing table for the given context-free grammar – S–>AA A–>aA|b.	08	L3	CLO3
	c)	Explain in detail conflict in LR Parsers.	08	L2	CLO3
Q.5		**Attempt any Two of the following**			
	a)	Explain semantic with semantic errors.	09	L2	CLO3
	b)	Analyze attributed grammar for parsing with types.	09	L3	CLO3
	c)	What is syntax tree also give rules to construct syntax tree.	09	L1	CLO4

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Q.6	**Attempt any Two of the following**				
	a)	Explain Principal sources of optimization.	09	L2	CLO4
	b)	Illustrate three address codes.	09	L2	CLO4
	c)	What is optimization and explain Peephole optimization.	09	L1	CLO4

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