



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - CYBER SECURITY

Lesson Plan & Work-done Diary for AY:2026-27, Odd Semester

Course with Code: Theory of Computation – BCS503					Faculty: Dr. Shwetha G K			Semester & Section: 5 th	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1	1		Introduction to course	Chalk & Talk					
	2		Introduction to Finite Automata	Chalk & Talk					
	3		Structural Representations	Chalk & Talk					
	4		Automata and Complexity	Chalk & Talk					
	5		The Central Concepts of Automata Theory	Chalk & Talk					
	6		Deterministic Finite Automata	Chalk & Talk					
	7		Nondeterministic Finite Automata	Chalk & Talk					
	8		An application of finite Automata	Chalk & Talk					
	9		Text Search	Chalk & Talk					
	10		Finite Automata with Epsilon- Transitions & Applications	Chalk & Talk					
	11		Revision/ Solving QP problems	Chalk & Talk					



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MODULE-2	11		Regular Expressions	Chalk & Talk					
	12		Finite Automata and Regular Expressions	Chalk & Talk					
	13		Problems on RE	Chalk & Talk					
	14		Proving Languages not to be Regular	Chalk & Talk					
	15		Problems on RE and FA	Chalk & Talk					
	16		Closure Properties of Regular Languages	Chalk & Talk					
	17		Problems on closure Properties	Chalk & Talk					
	18		Equivalence and Minimization of Automata	Chalk & Talk					
	19		Problems on Minimization of automata	Chalk & Talk					
	20		Applications of Regular Expressions	Chalk & Talk					
	21		Revision/ Solving QP problems	Chalk & Talk					
	22		Revision/ Solving QP problems	Chalk & Talk					





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MODULE-3	23		Context-Free Grammars,	Chalk & Talk					
	24		Parse Trees,	Chalk & Talk					
	25		Ambiguity in Grammars and Languages	Chalk & Talk					
	26		Ambiguity in Grammars and Languages problems	Chalk & Talk					
	27		Definition of the Pushdown Automaton	Chalk & Talk					
	28		Problems on Pushdown Automaton	Chalk & Talk					
	29		The Languages of a PDA	Chalk & Talk					
	30		Equivalence of PDA's and CFG's	Chalk & Talk					
	31		Deterministic Pushdown Automata	Chalk & Talk					
	32		Revision/ Solving QP problems	Chalk & Talk					
	33		Revision/ Solving QP problems	Chalk & Talk					



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MODULE-4	34		Normal Forms for Context-Free Grammars,	Chalk & Talk					
	35		Types of Normal Forms for Context-Free Grammars,	Chalk & Talk					
	36		Types Normal Forms for Context-Free Grammars,	Chalk & Talk					
	37		The Pumping Lemma for Context-Free Languages	Chalk & Talk					
	38		The Pumping Lemma for Context-Free Languages	Chalk & Talk					
	39		Problems of Pumping lemma	Chalk & Talk					
	40		Problems of Pumping lemma	Chalk & Talk					
	41		Closure Properties of Context-Free Languages.	Chalk & Talk					
	42		Closure Properties of Context-Free Languages.	Chalk & Talk					
	43		Solving QP problems	Chalk & Talk					
	44		Revision/ Solving QP problems	Chalk & Talk					





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MODULE-5	45		Introduction to Turing Machines:	Chalk & Talk					
	46		Problems That Computers Cannot Solve	Chalk & Talk					
	47		The Turing Machine	Chalk & Talk					
	48		The Turing Machine problems	Chalk & Talk					
	49		The Turing Machine problems	Chalk & Talk					
	50		Programming Techniques for Turing Machines	Chalk & Talk					
	51		Extensions to the Basic Turing Machine	Chalk & Talk					
	52		Undecidability	Chalk & Talk					
	53		Problem on Undecidability	Chalk & Talk					
	54		A Language That Is Not Recursively Enumerable.	Chalk & Talk					
	55		Revision/ Solving QP problems	Chalk & Talk					





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	Activity	Planned	Actual	Remarks
1	Theory Classes	50		
2	Assignments/Quizzes	2		
3	Tutorials/ Extra classes	5		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	-		
Planning			Execution	
Faculty Signature: Dr. Shwetha G K			Faculty Signature: Dr. Shwetha G K	
HOD Signature:			HOD Signature:	

