

TEACHING PLAN

Subject : **Computer Science**

Paper Name and Course Code: : **Automata theory and Languages**

Credit/ total no. Of classes : 4

Period: January- June

Lecture No.	Faculty	Topic	Mode of teaching(Experiential learning, participative learning)	Teaching aid use	Assessment method
Lecture 1	P.P.D.Sarma	Languages, grammars, and automata	Classroom Teaching/slides	Computer system LCD Projector	UNIT TEST
Lecture 2	P.P.D.Sarma	Finite Automata	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 3	P.P.D.Sarma	Deterministic Accepters and Transition Graphs	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 4	P.P.D.Sarma	Regular Languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 5	P.P.D.Sarma	Construction of DFA for different sets	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 6	P.P.D.Sarma	Construction of DFA for different sets	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 7	P.P.D.Sarma	NFA, requirement of NFA, Examples	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 8	P.P.D.Sarma	Construction of NFA for different sets	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 9	P.P.D.Sarma	Equivalence of Deterministic and Nondeterministic FiniteAccepters	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 10	P.P.D.Sarma	Reduction of the Number of States in Finite Automata	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 11	P.P.D.Sarma	Examples on DFA minimization	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 12	P.P.D.Sarma	Regular Languages and Regular Grammars	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 13	P.P.D.Sarma	Regular Expressions	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 14	P.P.D.Sarma	Examples on Regular Expressions	Classroom Teaching/slides	Computer system LCD Projector	

Lecture 15	P.P.D.Sarma	connection between regular languages and regular expression	Classroom Teaching/slides	Computer system	
Lecture 16	P.P.D.Sarma	Regular Grammar, Right- and Left-Linear Grammars	Classroom Teaching/slides	Computer system LCD Projector	UNIT TEST
Lecture 17	P.P.D.Sarma	Equivalence of Regular Languages and Regular Grammars	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 18	P.P.D.Sarma	Closure Properties of Regular Languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 19	P.P.D.Sarma	pumping lemma for regular languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 20	P.P.D.Sarma	Examples on pumping lemma for regular languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 21	P.P.D.Sarma	Context-Free Language and grammar	Classroom Teaching/slides	Computer system LCD Projector	SESSIONAL EXAM
Lecture 22	P.P.D.Sarma	Examples of CFL	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 23	P.P.D.Sarma	Examples of CFL	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 24	P.P.D.Sarma	Leftmost and Rightmost Derivations, parse tree	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 25	P.P.D.Sarma	Ambiguity in Grammars and Languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 26	P.P.D.Sarma	Simplification of Context-Free Grammars, Removing Useless Productions, Removing λ -Productions, Removing Unit-Productions	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 27	P.P.D.Sarma	Examples on Simplification of Context-Free Grammars	Classroom Teaching/slides	Computer system LCD Projector	QUIZ
Lecture 28	P.P.D.Sarma	Chomsky Normal Form, examples	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 29	P.P.D.Sarma	Greibach normal form, examples	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 30	P.P.D.Sarma	Pushdown Automata non-deterministic	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 31	P.P.D.Sarma	The Language Accepted by a Pushdown Automaton	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 32	P.P.D.Sarma	Examples on NPDA	Classroom Teaching/slides	Computer system LCD Projector	

Lecture 33	P.P.D.Sarma	Examples on NPDA	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 34	P.P.D.Sarma	Pushdown Automata for Context-Free Languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 35	P.P.D.Sarma	CFG for PDA	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 36	P.P.D.Sarma	DPDA and DCFL	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 37	P.P.D.Sarma	Pumping Lemma for Context-Free Languages	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 38	P.P.D.Sarma	Examples on Pumping lemma for CFL	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 39	P.P.D.Sarma	Examples on Pumping lemma for CFL	Classroom Teaching/slides	Computer system LCD Projector	
Lecture 40	P.P.D.Sarma	Closure Properties of CFL	Classroom Teaching/slides	Computer system LCD Projector	