



**PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY,
PANIPAT
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

COURSE PLAN

Faculty Name: - Shekhar Singh

Subject Name: - Automata Theory

Branch/Semester: - CSE - 5th SEM (C)

Subject Code:- CSE-301N

Sr No.	Lecture No.	Topics To Be Covered	Planned On	Covered On	Remarks
1	L 1	Study the concept of automata theory	17/07/19		
2	L 2	Applications of finite automata. Intro of deterministic finite automata.(DFA)	19/07/19		
3	L 3	Non deterministic finite automata (NFA)	22/07/19		
4	L 4	Finite automata with e transitions	24/07/19		
5	L 5	Regular expression (RE) of finite automata.	26/07/19		
6	L 6	Applications of regular expressions	29/07/19		
7	L 7	Algebraic laws of RE	31/07/19		
8	L 8	Closure properties of RE	02/08/19		
9	L 9	RE to NFA, DFA to RE.	05/08/19		
10	L 10	Minimization of NFA and DFA	07/08/19		
11	L 11	DFA conversions	09/08/19		
12	L 12	Parse tree , Context sensitive grammar	12/08/19		
13	L 13	Applications of CSG, Regular grammar	14/08/19		
14	L 14	Ambiguity and normal forms of CFG	16/08/19		
15	L 15	Closure properties of CFL	19/08/19		
16	L16	Chomsky normal form and greibach normal forms	21/08/19		
17	L 17	Pumping lemma theorem and its applications	23/08/19		
18	L 18	Minimizations of finite automata	26/08/19		
19	L 19	Recursive languages.	28/08/19		
20	L 20	Intro to mealy and Moore machines	30/08/19		
21	L 21	Equivalence of Moore and mealy	02/09/19		

		machines			
22	L 22	Designing of Moore and mealy machines	04/09/19		
23	L 23	Intro to PDA	06/09/19		
24	L 24	Language of PDA	09/09/19		
25	L 25	Equivalence of PDA and CFG	11/09/19		
26	L 26	Applications of PDA	13/09/19		
27	L 27	Parikh theorem	16/09/19		
28	L 28	Parikh Mapping	18/09/19		
29	L 29	Kleene's theorem	25/09/19		
30	L 30	Intro to turing machine	27/09/19		
31	L 31	Programming technique of turing machine	30/09/19		
32	L32	Extensions of turing machine	04/10/19		
33	L33	Designing of Turing machine, Rice theorem, decidability introduction	07/10/19		
34	L34	Time and space complexity of turing machine	09/10/19		
35	L 35	Revision of Unit-I	11/10/19		
36	L 36	Revision of Unit-I	14/10/19		
37	L 37	Revision of Unit-I	16/10/19		
38	L 38	Revision of Unit-II	18/10/19		
39	L 39	Revision of Unit-II	21/10/19		
40	L 40	Revision of Unit-II	23/10/19		
41	L 41	Revision of Unit-III	25/10/19		
42	L 42	Revision of Unit-III	04/11/19		
43	L 43	Revision of Unit-III	06/11/19		
44	L 44	Revision of Unit-IV	08/11/19		
45	L 45	Revision of Unit-IV	11/11/19		
46	L 46	Revision of Unit-IV	13/11/19		
47	L 47	Class Test	15/11/19		

S. No.	Topic Beyond Syllabus (covered)	Date	Percentage of students	Relevance to PO's & PSO's
1	Linear Bounded Automata	18/11/19		PO1, PO2, PO4, PO5
2	LR(k) Grammars	20/11/19		PO1, PO2, PO4, PO5

3	Computability	22/11/19		PO1, PO2, PO3, PO4, PO6
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