

# A complete web enabled Education Administration Software

Sr. No.	Topic Name
1	Introduction
2	Background on Sets, Relations and Graphs
3	Background on different types of mathematical proofs: Deductive, Contradiction, Induction, Contrapositive.
4	Formal Definition of Deterministic Finite Automata
5	State transition Diagram
6	Examples of languages accepted by DFA
7	NFA formal definition
8	Language accepted by NFA
9	NFA with epsilon transition
10	Elimination of epsilon transition
11	Equivalence of DFA and NFA
12	Minimization of DFA
13	Minimization of DFA and Myhill Nerode Theorem
14	FA with output Moore and Mealy machine
15	Interconversion of Moore and Mealy machine
16	Regular Expression Introduction
17	DFA to Regular Expression
18	Regular Expression to DFA
19	Algebraic Laws for Regular Expressions
20	Pumping Lemma for Regular Languages
21	Closure Properties of Regular Languages
22	Decision Properties of Regular Languages
23	Equivalence and Minimization of Automata
24	Context-Free Grammars Introduction, Leftmost and Rightmost Derivation
25	Language of a Grammar
26	Parse Trees
27	Inference, Derivation and Parse Trees
28	Ambiguous Grammar and removing ambiguity

Sr. No.	Topic Name
29	Applications of Context Free Language YACC parser
30	Push Down Automata (PDA) Introduction
31	Language of PDA
32	DPDA and CFG
33	Eliminating epsilon, useless and unit production
34	Chomsky Normal Form
35	Pumping Lemma for CFL
36	Closure and Decision Properties of CFL
37	Turing Machine
38	Recursive and Recursive enumerable sets
39	Undecidability
40	Brief Description of Class P and NP