Theory of Computation And Automata

SOURCE: 01	Theory of Computation (GATE EXAM)
01	Syllabus of Theory of Computation (TOC)
02	Introduction to TOC | What is Language in TOC with Example
03	What is Automata in TOC
04	Power of Sigma in TOC | Kleene Closure in TOC
05	What is Grammar in TOC
06	What is DFA in TOC with Example
07	DFA Example – 1 | How to Construct DFA in TOC
08	DFA Example – 2 | DFA of Language with All Strings End with 'a'
09	DFA of Language with All Strings Starting with 'a' and Ending with 'b' | DFA Example
10	DFA of Language with All Strings Not Starting with 'a' Or Not Ending with 'b' | DFA Example
11	DFA of All Strings in Which 2nd Symbol is '0' and 4th Symbol is '1' | DFA Example 6
12	DFA of All Binary Strings Divisible by 3 | DFA Example 5
13	What is NFA in TOC | Non Deterministic Finite Automata
14	DFA vs NFA in TOC with Examples
15	Design NFA of All Binary Strings in Which 2nd Last Bit is 1 | NFA Designing
16	Convert NFA to DFA with Example | How to Convert NFA to DFA
17	DFA for Even a and Event b | Even a Odd b | Odd a and Event b | Odd a Odd b | TOC
18	Eliminate Epsilon | Conversion from Elimination NFA to NFA
19	Limitations of DFA and Applications of DFA in TOC
20	Moore Machine in TOC with Example | What is Moore Machine
21	Mealy Machine in TOC | Formal Definition | Mealy Machine
22	Difference Between Mealy and Moore Machine in
23	Moore to Mealy Conversion with Example | TOC
24	Mealy to Moore Conversion with Example | TOC
25	Epsilon NFA | NFA Formal Definition
26	Minimization of DFA with Example | TOC
27	Regular Expressions in TOC with Examples | Formal Definition
28	Regular Expressions for Finite Languages Example 1 | TOC
29	Regular Expressions for Infinite Language Example 2 | TOC
30	Question on Regular Expression | TOC
31	Pumping Lemma for Regular Language in TOC with Example
32	Closure Properties of Regular Languages in TOC
33	Reversal Operation in TOC | How Regular Languages Closured Under Reversal
34	Quotient Operation in TOC with Example | Closure Properties
35	INIT Operation I TOC
36	Regular Languages Not Closed Under Infinite Union | TOC
37	Closure Properties of Various Languages in TOC
38	Languages, Automata, Grammars in TOC | Comparison Between Tem
39	Question on DCFL and CFL in TOC
40	Question on Decidability and Closure Property | TOC
41	Homomorphism in Regular Languages | Closure Properties | TOC
42	Inverse Homomorphism in Regular Languages | Closure Properties in TOC
43	Decidability and Undesirability Table in TOC for All Languages
44	CFL and CFG Introduction and Syllabus Discussion
45	What is context Free Grammar in TOC | Formal Definition

46	Convert Context Free Language to Context Free Grammar with Example | TOC
47	Left Most and Right Most Derivation in CFG | TOC
48	What is Pushdown Automata in TOC | Definition and Explanation
49	Design PDA for 0^n|^2n CFL Language
50	Design PDA for {w | na(w) = nb(w)| CFL Langauge | Pushdown Automata
51	Closure Properties of CFL (Context Free Languages) with Explanations
52	Remove Null Production from CFG (Context Free Grammar) with Examples
53	Remove Unit Production from CFG (Context Free Grammar)
54	Introduction to Turing Machine and Its Definition | TOC
55	What is LBA (Linear Bounded Automata) | TOC
56	Turing Machine for a^nb^n | Design Turing Machine
57	Turing Machine for a^nb^nc^n | Design Turing Machine
58	Recursive vs Recursive Enumerable Languages | TOC
59	Turing Machine for 1's Complement | Transition Table and Diagram
60	Modifications in Turing Machine
61	CYK Algorithm | Membership Algorithm in CFG | TOC
62	CNF vs GNF | Chornsky vs Greibach Normal Form | CFG in TOC
63	Derivation Tree, Parse Tree with Example in TOC and Compiler Design
64	Recursive vs Non-Recursive CFG with Examples | Classification of CFG
65	Ambiguous vs Unambiguous Grammar with Examples | Conversion Ambiguous to Unambiguous
66	Conversion form Epsilon NFA to DFA with Example | Eliminate Epsilon Moves
67	Equivalence of DFA with Examples