

## Top 20 IMP Questions of TCS Exam 2024

### Top Numericals of TCS Exam 2024

Note : These questions are highest priority but we recommend to study all the questions given in how to pass Module Wise importance PDF to Pass and Score better marks

- Design DFA or NFA Numericals
- Design NFA with Epsilon and Convert into DFA or Minimized DFA numericals
- Moore and Mealy Machine Numericals
- Pumping Lemma Numericals
- Construct a CFG Numericals
- Leftmost derivation , Rightmost derivation , Parse tree , Check if the grammar above is ambiguous or unambiguous Numerical
- CFG to CNF Numericals
- Design a Push Down Automata numericals
- Design a Turing Machine Numericals

### Top Theory Questions of TCS 2024

- Discuss the difference in transition functions of PDA, TM, and FA.
- Compare and contrast Moore and Mealy Machines.
- Explain the Pumping Lemma for regular languages
- Explain with an example, Chomsky Hierarchy.

- Write short note on Variants of Turing Machines
- TM-Halting Problem.
- Recursive and Recursively enumerable languages.
- Post Correspondence Problem

Extra :

- Discuss different applications of Finite Automata.
- Types of Turing Machine or its subtopic : Universal turing machine
- Write short note on Arden's Theorem

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