

- Brief about Finite Automata
- Construct derivation tree for the string XXXX by using leftmost/right most derivation for the grammar
- Construct a CFG for set of strings that contain XX
- Design NFA for the language  $L=\{XX\}$
- State any four types of proofs.
- Construct a finite automata for the regular expression XX
- Explain Chomsky Hierarchy for formal languages.
- State the closure properties of regular languages with suitable example.
- Trace out the differences between Non-Deterministic and Deterministic Finite Automata. and  $\epsilon$ -NFA
- State the formal Definition of NFA
- State the pumping lemma for regular languages.
- find B-A
- Find the language accepted by CFG.
- Compute the  $\epsilon$ -closure of each state
- Distinguish between NFA and DFA
- Design an NFA over an alphabet  $\Sigma = \{a,b\}$  that accepts set of all strings
- Distinguish between unrestricted grammar and context sensitive grammar
- List out two closure properties of regular languages
- Elucidate the term ambiguous grammar
- Derive the string "xxxxx" using the following grammar
- Construct Regular Expression for the following Finite Automata:
- Construct a NFA that accepts all strings XX
- List out the applications of context free grammar
- Design a minimized DFA that can be derived from the following regular expression XX
- Formally define context free grammar
- Solve the following using proof by induction
- Design a DFA for  $\Sigma = \{0,1\}$  which accepts string which starts with XX
- Convert the NFA with epsilon to NFA
- Determine the DFA from a given NFA
- Convert the NFA with epsilon to DFA
- Design a NFA for  $\Sigma=\{a,b\}$  in which it accepts the String XX
- Elucidate about ambiguous grammar and Prove the following grammar is ambiguous
- Show  $L=\{XXXX\}$  is not regular