

29 Lecture - CS501

Important Mcqs

1. What is FALSIM?

- a) A programming language
- b) A software tool for simulating finite automata models
- c) A hardware device
- d) A database management system

Answer: b) A software tool for simulating finite automata models

What is the purpose of FALSIM?

- a) To design database systems
- b) To test computer networks
- c) To simulate and test the behavior of finite automata models
- d) To create web applications

Answer: c) To simulate and test the behavior of finite automata models

Which of the following is a feature of FALSIM?

- a) It provides a graphical user interface
- b) It is used for creating video games
- c) It is a high-level programming language
- d) It is used for data analysis

Answer: a) It provides a graphical user interface

Which of the following is not a type of finite automata?

- a) Deterministic finite automata (DFA)
- b) Nondeterministic finite automata (NFA)
- c) Pushdown automata (PDA)
- d) Recursive automata (RA)

Answer: d) Recursive automata (RA)

What is the input to a finite automata model?

- a) Regular expressions
- b) Programming code
- c) Finite sequences of symbols
- d) Natural language sentences

Answer: c) Finite sequences of symbols

Which of the following is not a component of a finite automata model?

- a) Input alphabet
- b) Transition function
- c) Output function
- d) States

Answer: c) Output function

Which of the following is true about a deterministic finite automata (DFA)?

- a) It can recognize context-free languages

- b) It can recognize regular languages
- c) It can recognize context-sensitive languages
- d) It can recognize recursive languages

Answer: b) It can recognize regular languages

Which of the following is true about a nondeterministic finite automata (NFA)?

- a) It can recognize context-free languages
- b) It can recognize regular languages
- c) It can recognize context-sensitive languages
- d) It can recognize recursive languages

Answer: a) It can recognize context-free languages

Which of the following is not a step in simulating a finite automata model using FALSIM?

- a) Design the model using a graphical user interface
- b) Define the input alphabet and states of the model
- c) Specify the output function of the model
- d) Test the model with input sequences

Answer: c) Specify the output function of the model

Which of the following is an advantage of using FALSIM for simulating finite automata models?

- a) It requires extensive programming knowledge
- b) It provides a visual representation of the model
- c) It is limited to deterministic finite automata
- d) It is not compatible with other programming languages

Answer: b) It provides a visual representation of the model