

Department of Computer Science & IT, The Islamia University of Bahawalpur (IUB)

Roll no: _____

Signature: _____

BS (CS) - 7th semester

Subject: Compiler Construction

Time: 15 min.

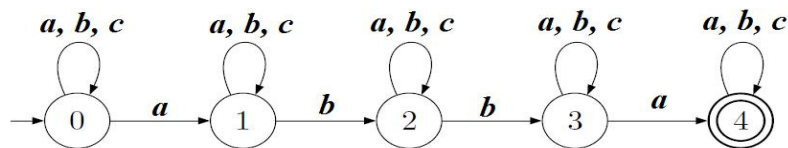
Encircle the appropriate choice

10 Marks

1. A Transition Function(δ) has two arguments
 - a) The state and the input symbol
 - b) The state and the input word (string)
 - c) The initial state and the final state
2. This phase analyzes the syntax tree to check program consistency requirements
 - a) Syntax analysis b) Parsing c) Type checking
3. Concatenates each string in L zero or more times
 - a) Kleene Closure (L^*) b) Positive Closure (L^+) c) Concatenation ($L1.L2$)
4. Allows a transformation to a new state without consuming any input symbols
 - a) Epsilon transition b) Transition Function (δ)
5. NFA and DFA accepts only
 - a) natural languages b) regular languages c) non-regular languages
6. A finite state machine where for each pair of state and input symbol there may be several possible next states
 - a) DFA b) Regex c) NFA

7. Consider the following Finite Automaton A over $\Sigma = \{a, b, c\}$:

(4 Marks)



- Choose the correct statement

(a) $\epsilon \in L(A)$ (b) $\epsilon \notin L(A)$

(c) Neither a nor b

- Which of the following statements about A is correct?

(a) The automaton A is a Deterministic Finite Automaton (DFA)

(b) The automaton A is a Non-Deterministic Finite Automaton (NFA)

(c) The automaton A is neither NFA nor DFA

- Choose the correct statement

(a) $bacabca \in L(A)$ (b) $bacabca \notin L(A)$

(c) Neither a nor b

- Choose the correct statement

(a) $bbaacbabcac \in L(A)$ (b) $bbaacbabcac \notin L(A)$

(c) Neither a nor b