

G.PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY (AT)

ILB.Tech II SEM Objective – I Mid Exam

SET-1

Branch: CSE

Sub: FLAT

Date: 7-03-2018

Time: 20 MINS

Max.Marks:10

1. A Grammar G is expressed as _____.
2. The FA to recognize 'n words each of maximum length 'm require _____ states.
3. The Regular Expression for the language over an alphabet $\Sigma = \{0, 1\}$ for the Language $L = \{0^n 1^m \text{ where } n \geq 0 \text{ and } m \geq 0\}$ is _____
4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 1\}$ Is _____.
5. $RR^* =$ _____
6. FA has []
a) Unlimited memory b) no memory at all c) Limited memory
d) none of these
7. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
a) 3 b)5 c)6 d)4
8. The set of all strings not containing 100 as substring []
a) $0^*(1+0)^*$ b) 0^*1010^* c) 0^*1^*01 d) $0^*(10+1)^*$
9. An automaton is a _____ device []
a) Generative b) cognitive c) acceptor d) rejecter
10. A grammar G has productions of the form $X \rightarrow 0Y/Y0/\epsilon$ []
a) Regular b) CFG c) CSG d) none
11. NFA with ϵ can increase the processing time of NFA [true/false]
12. All Moore machines have an equivalent FA. [true/false]
13. Is DFA a subset of NFA? [true/false]
14. String is a Finite sequence of symbols [true/false]
15. Ambiguous grammar is said to be the grammar if both LMD and RMD are not equivalent. [true/false]
16. LMD is a top down parsing. [true/false]

Match the following [17-20]

17. Type 1 a) Unrestricted Grammars []
18. Type 0 b) Context Sensitive Grammars []
19. Type 3 c) Context Free Grammars []
20. Type 2 d) Regular Grammars []

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13. Is DFA a subset of NFA? [true/false]
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15. Ambiguous grammar is said to be the grammar if both LMD and RMD are not equivalent. [true/false]
16. LMD is a top down parsing. [true/false]

Match the following [17-20]

17. Type 1 a) Unrestricted Grammars []
18. Type 0 b) Context Sensitive Grammars []
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20. Type 2 d) Regular Grammars []

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ILB.Tech II SEM Objective – I Mid Exam SET-2

Branch: CSE

Sub: FLAT

Date: 7-03-2018

Time: 20 MINS

Max.Marks:10

1. The transition function for NFA is a mapping function given as _____.
2. The tuple representation for Mealy machine is _____
3. The Regular Expression for the language over an alphabet $\Sigma = \{0, 1\}$ for the Language $L = \{0^n 1^m \text{ where } n \geq 0 \text{ and } m \geq 1\}$ is _____
4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 0\}$ is _____
5. $(R + \epsilon)^* =$ _____
6. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
a) 4 b)5 c)6 d)3
7. Which of the following regular expressions identities are true? []
a) $(r+s)^* = r^* s^*$ b) $r^* s^* = (r+s)^*$ c) $(r+s)^* = r^* + s^*$ d) $r^* s^* = r^* + s^*$
8. The set of all strings not containing 100 as substring []
a) $0^*(1+0)^*$ b) 0^*1010^* c) 0^*1^*01 d) $0^*(10+1)^*$
9. An automaton is a _____ device []
a) Acceptor b) cognitive c) Generative d) rejecter
10. A grammar G has productions of the form $aX \rightarrow 0Y/Y0$ []
a) Unrestricted Sensitive Grammar b) CFG c) CSG d) none
11. NFA with ϵ can decrease the processing time of NFA [true/false]
12. All Mealy machines have an equivalent FA. [true/false]
13. Is NFA a subset of DFA? [true/false]
14. Grammar is a Finite sequence of symbols [true/false]
15. Ambiguous grammar is said to be the grammar if both LMD and RMD are equivalent. [true/false]
16. RMD is a top down parsing. [true/false]

Match the following [17-20]

- | | |
|------------|--------------------|
| 17. Type-1 | Turing machine [] |
| 18. Type-3 | LBA [] |
| 19 Type-0 | PDA [] |
| 20. Type-2 | FSM [] |

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ILB.Tech II SEM Objective –I Mid Exam SET-2

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4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 0\}$ is _____
5. $(R + \epsilon)^* =$ _____
6. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
a) 4 b)5 c)6 d)3
7. Which of the following regular expressions identities are true? []
a) $(r+s)^* = r^* s^*$ b) $r^* s^* = (r+s)^*$ c) $(r+s)^* = r^* + s^*$ d) $r^* s^* = r^* + s^*$
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a) $0^*(1+0)^*$ b) 0^*1010^* c) 0^*1^*01 d) $0^*(10+1)^*$
9. An automaton is a _____ device []
a) Acceptor b) cognitive c) Generative d) rejecter
10. A grammar G has productions of the form $aX \rightarrow 0Y/Y0$ []
a) Unrestricted Sensitive Grammar b) CFG c) CSG d) none
11. NFA with ϵ can decrease the processing time of NFA [true/false]
12. All Mealy machines have an equivalent FA. [true/false]
13. Is NFA a subset of DFA? [true/false]
14. Grammar is a Finite sequence of symbols [true/false]
15. Ambiguous grammar is said to be the grammar if both LMD and RMD are equivalent. [true/false]
16. RMD is a top down parsing. [true/false]

Match the following [17-20]

- | | |
|------------|--------------------|
| 17. Type-1 | Turing machine [] |
| 18. Type-3 | LBA [] |
| 19 Type-0 | PDA [] |
| 20. Type-2 | FSM [] |

G.PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY (AT)

II.B.Tech II SEM Objective –I Mid Exam SET-3

Branch: CSE **Sub: FLAT**
Date: 7-03-2018 **Time: 20 MINS** **Max.Marks:10**

1. The transition function for DFA is a mapping function given as _____.
2. The Tuple representation for NFA is _____
3. The Regular Expression for the language over an alphabet $\Sigma = \{0, 1\}$ for the Language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 0\}$ is _____
4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 0 \text{ and } m \geq 1\}$ is _____
5. The specification of using Arden's Theorem is _____
6. Which of the following regular expressions identities are true? []
 a) $(r+s)^* = r^* s^*$ b) $r^* s^* = (r+s)^*$ c) $(r+s)^* = r^* + s^*$ d) $r^* s^* = r^* + s^*$
7. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
 a) 3 b)5 c)6 d)4
8. The set of all strings not containing 100 as substring []
 a) $0^*(1+0)^*$ b) 0^*1010^* c) 0^*1^*01 d) $0^*(10+1)^*$
9. An automaton is a _____ device []
 a) Generative b) acceptor c) cognitive d) rejecter
10. A grammar G has productions of the form $X \rightarrow 0Y/Y0/\epsilon$ []
 a) CFG b) CSG c) Unrestricted Sensitive Grammar d) none
11. All Moore machines have an equivalent FA. [true/false]
12. NFA with ϵ can decrease the processing time of NFA [true/false]
13. Is DFA a subset of NFA? [true/false]
14. Alphabet is a Finite sequence of symbols [true/false]
15. Unambiguous grammar is said to be the grammar if both LMD and RMD are not equivalent. [true/false]
16. LMD is a bottom up parsing. [true/false]

Match the following [17-20]

- | | | |
|------------|------------------------------|-------|
| 17. Type 1 | a) Unrestricted Grammar | [] |
| 18. Type 0 | b) Context Sensitive Grammar | [] |
| 19. Type 3 | c) Context Free Grammar | [] |
| 20. Type 2 | d) Regular Grammar | [] |

G.PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY (AT)

II.B.Tech II SEM Objective –I Mid Exam SET-3

Branch: CSE **Sub: FLAT**
Date: 7-03-2018 **Time: 20 MINS** **Max.Marks:10**

1. The transition function for DFA is a mapping function given as _____.
2. The Tuple representation for NFA is _____
3. The Regular Expression for the language over an alphabet $\Sigma = \{0, 1\}$ for the Language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 0\}$ is _____
4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 0 \text{ and } m \geq 1\}$ is _____
5. The specification of using Arden's Theorem is _____
6. Which of the following regular expressions identities are true? []
 a) $(r+s)^* = r^* s^*$ b) $r^* s^* = (r+s)^*$ c) $(r+s)^* = r^* + s^*$ d) $r^* s^* = r^* + s^*$
7. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
 a) 3 b)5 c)6 d)4
8. The set of all strings not containing 100 as substring []
 a) $0^*(1+0)^*$ b) 0^*1010^* c) 0^*1^*01 d) $0^*(10+1)^*$
9. An automaton is a _____ device []
 a) Generative b) acceptor c) cognitive d) rejecter
10. A grammar G has productions of the form $X \rightarrow 0Y/Y0/\epsilon$ []
 a) CFG b) CSG c) Unrestricted Sensitive Grammar d) none
11. All Moore machines have an equivalent FA. [true/false]
12. NFA with ϵ can decrease the processing time of NFA [true/false]
13. Is DFA a subset of NFA? [true/false]
14. Alphabet is a Finite sequence of symbols [true/false]
15. Unambiguous grammar is said to be the grammar if both LMD and RMD are not equivalent. [true/false]
16. LMD is a bottom up parsing. [true/false]

Match the following [17-20]

- | | | |
|------------|------------------------------|-------|
| 17. Type 1 | a) Unrestricted Grammar | [] |
| 18. Type 0 | b) Context Sensitive Grammar | [] |
| 19. Type 3 | c) Context Free Grammar | [] |
| 20. Type 2 | d) Regular Grammar | [] |

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II.B.Tech II SEM Objective – I Mid Exam SET-4

Branch: CSE Sub: FLAT
Date: 7-03-2018 Time: 20 MINS Max.Marks:10

1. FA for accepting words “this” and “that” require _____ no. of states.
2. The Tuple representation for DFA is _____
3. The Regular Expression for the language over an alphabet $\Sigma = \{0, 1\}$ for the Language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 1\}$ is _____
4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 0 \text{ and } m \geq 0\}$ is _____
5. The purpose of using Pumping lemma is _____
6. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
a) 4 b) 3 c) 6 d) 5
7. Which of the following regular expressions identities are true? []
a) $(r+s)^* = r^* s^*$ b) $r^* s^* = (r+s)^*$ c) $(r+s)^* = r^* + s^*$ d) $r^* s^* = r^* + s^*$
8. An automaton is a _____ device []
a) Generative b) cognitive c) acceptor d) rejecter
9. The set of all strings not containing 100 as substring []
a) $0^*(1+0)^*$ b) 0^*1010^* c) 0^*1^*01 d) $0^*(10+1)^*$
10. A grammar G has productions of the form $aX \rightarrow 0Y/Y0$ []
a) Unrestricted Sensitive Grammar b) CFG c) CSG d) none
11. For every FA there is always an equivalent Moore machine and mealy machine. [true/false]
12. All Mealy machines have an equivalent FA. [true/false]
13. Is NFA a subset of DFA? [true/false]
14. Language is a Finite sequence of symbols [true/false]
15. Unambiguous grammar is said to be the grammar if both LMD and RMD are equivalent. [true/false]
16. RMD is a bottom up parsing. [true/false]

Match the following [17-20]

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|------------|----------------|-----|
| 17. Type-1 | Turing machine | [] |
| 18. Type-2 | LBA | [] |
| 19. Type-3 | PDA | [] |
| 20. Type-0 | FSM | [] |

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1. FA for accepting words “this” and “that” require _____ no. of states.
2. The Tuple representation for DFA is _____
3. The Regular Expression for the language over an alphabet $\Sigma = \{0, 1\}$ for the Language $L = \{0^n 1^m \text{ where } n \geq 1 \text{ and } m \geq 1\}$ is _____
4. The grammar for the language $L = \{0^n 1^m \text{ where } n \geq 0 \text{ and } m \geq 0\}$ is _____
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6. What is the minimum number of states in the NFA accepting the language $\{ab, ac\}$ over an alphabet $\Sigma = \{a, b\}$ []
a) 4 b) 3 c) 6 d) 5
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11. For every FA there is always an equivalent Moore machine and mealy machine. [true/false]
12. All Mealy machines have an equivalent FA. [true/false]
13. Is NFA a subset of DFA? [true/false]
14. Language is a Finite sequence of symbols [true/false]
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