Automata Models - Fall Semester - 2021/2022

Started on	Saturday, 1 January 2022, 8:01 PM
State	Finished
Completed on	Saturday, 1 January 2022, 8:12 PM
Time taken	11 mins 33 secs
Grade	6.00 out of 10.00 (60%)

Quiz navigation

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Finish review

Question 1
Incorrect
Mark 0.00 out of 1.00
Flag question

Pumping lemma is generally used for proving

Select one:
- a. a given language is regular
- b. a given grammar is regular
- c. a given language is not regular
- d. a given grammar is not regular ✖

Your answer is incorrect.
The correct answer is: a given language is not regular

Question 2
Correct
Mark 1.00 out of 1.00
Flag question

Find $L(G)$, where
$G=<\{a,b\},\{S,A,B\},P,S>\ S\to aA\ ,\ A\to aA|B\ \ ,\ B\to b|bB$

Select one:
- a. $\{a^m b^n : m>0 \ or \ n>0\}$
- b. $\{a^m b^n : m>0 \ and \ n>0\}$ ✔

Your answer is correct.
The correct answer is: $\{a^m b^n : m>0 \ and \ n>0\}$

Question 3
Correct
Mark 1.00 out of 1.00
Flag question

This regular expressions a+b generates the following regular grammar $S\to a|b$

Select one:
- True ✔
- False

The correct answer is 'True'.

Question 4
Correct
Mark 1.00 out of 1.00
Flag question

This regular expressions $(aa+bb)^*$ generates the following regular grammar $S\to \lambda|aaS|bbS$

Select one:
- True ✔
- False

The correct answer is 'True'.

Question 5
Incorrect
Mark 0.00 out of 1.00
Flag question

Choose the correct regular expression to describe the language {aa, aaaa, aaaaaa, ...}

Select one:
- a. a*
- b. aa(aa)*
- c. (aa)* ✖
- d. aaa*

Your answer is incorrect.
The correct answer is: aa(aa)*

Question 6
Incorrect
Mark 0.00 out of 1.00
Flag question

Choose the correct language described by the regular expression a* (a+b)

Select one:
- a. { λ, a, b, aa, ba,, aaa, baa, ...}
- b. {a, b, aa, ab, aaa, aab, ...}
- c. {λ , a, b, aa, ab,, aaa, aab, ...} ✖

d. {a, b, aa, ba, aaa, baa, ...}

Your answer is incorrect.

The correct answer is: {a, b, aa, ab, aaa, aab, ...}

Question 7

Correct

Mark 1.00 out of 1.00

Flag question

Let G = < {S},{a,b},P,S>,where P is: S → a b | abS, then G is a regular grammar.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question 8

Incorrect

Mark 0.00 out of 1.00

Flag question

$L = \{a^{n^2} : n \geq 0\} = \{\lambda, a, a^4, a^9, a^{16}, ...\}$ is regular.

Select one:

- True ✖
- False

The correct answer is 'False'.

Question 9

Correct

Mark 1.00 out of 1.00

Flag question

Which Type of Grammar is it?

S → Aa

A → Aab | λ

Select one:

- a. Right Linear
- b. Left Linear ✔
- c. None of the mentioned
- d. Both of the mentioned

Your answer is correct.

The correct answer is: Left Linear

Question 10

Correct

Mark 1.00 out of 1.00

Flag question

The regular expression with all strings of 0's and 1's with at least two consecutive 0's is .....

Select one:

- a. (0+1)*00(0+1)* ✔
- b. 1 + (10)*
- c. 0*1*2*
- d. (0+1)*011

Your answer is correct.

The correct answer is: (0+1)*00(0+1)*

Finish review