

Automata Models – Fall Semester – 2021/2022

Home > My courses > Automata Models - Fall - 2021/2022 > General > Quiz 2 (Saturday 8:00 PM)

Started on	Saturday, 1 January 2022, 8:14 PM
State	Finished
Completed on	Saturday, 1 January 2022, 8:18 PM
Time taken	3 mins 41 secs
Grade	10.00 out of 10.00 (100%)

Quiz navigation

1	2	3	4	5	6	7	8
✓	✓	✓	✓	✓	✓	✓	✓
9	10						
✓	✓						

[Finish review](#)

Question 1
Correct
Mark 1.00 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 correct.

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

$G = \langle \{a, b\}, \{S, A, B\}, P, S \rangle$ $S \rightarrow aA$, $A \rightarrow aA|B$, $B \rightarrow b|bB$

Select one:

- ☐ a. $\{a^m b^n : m > 0 \text{ or } n > 0\}$
- ☒ b. $\{a^m b^n : m > 0 \text{ and } n > 0\}$ ✓

Your answer is correct.

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

Question 3
Correct
Mark 1.00 out of 1.00
Flag question

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

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 $S \rightarrow \lambda|aaS|bbS$

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 5
Correct
Mark 1.00 out of 1.00
Flag question

Choose the correct regular expression to describe the language $\{aa, aaaa, aaaaaa, \dots\}$

Select one:

- ☐ a. aaa^+
- ☐ b. $(aa)^+$
- ☒ c. $aa(aa)^+$ ✓
- ☐ d. a^+

Your answer is correct.

The correct answer is: $aa(aa)^+$

Question 6

Correct

Mark 1.00 out of 1.00

Flag question

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

Select one:

- ☐ a. $\{\lambda, a, b, aa, ba, aaa, baa, \dots\}$
- ☐ b. $\{\lambda, a, b, aa, ab, aaa, aab, \dots\}$
- ☐ c. $\{a, b, aa, ba, aaa, baa, \dots\}$
- ☒ d. $\{a, b, aa, ab, aaa, aab, \dots\}$ ✓

Your answer is correct.

The correct answer is: $\{a, b, aa, ab, aaa, aab, \dots\}$

Question 7

Correct

Mark 1.00 out of 1.00

Flag question

Let $G = \langle \{S\}, \{a, b\}, P, S \rangle$, where P is: $S \rightarrow a \mid abS$, then G is a regular grammar.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 8

Correct

Mark 1.00 out of 1.00

Flag question

$L = \{a^{n^2} : n \geq 0\} = \{\lambda, a, a^4, a^9, a^{16}, \dots\}$ 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?

 $S \rightarrow Aa$
 $A \rightarrow Aab \mid \lambda$

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. $(0+1)^*011$
- ☐ b. $1 + (10)^*$
- ☒ c. $(0+1)^*00(0+1)^*$ ✓
- ☐ d. $0^*1^*2^*$

Your answer is correct.

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

[Finish review](#)

Learn Any Time, Any Where
Hotline: 16541

