

Quiz 10

Due Oct 31 at 11:59pm**Points** 6**Questions** 6**Available** Oct 27 at 11:59pm - Nov 14 at 11:59pm**Time Limit** 30 Minutes

Instructions

Quiz 10

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	30 minutes	4 out of 6

⚠ Correct answers will be available on Nov 8 at 12am.

Score for this quiz: **4** out of 6

Submitted Oct 31 at 7:32pm

This attempt took 30 minutes.

Question 1

1 / 1 pts

 $S \rightarrow 0A \mid 1B \mid \lambda$ $A \rightarrow S0$ $B \rightarrow S1$

This grammar can be classified as

☒ Linear☐ Left Linear☒ Context free☐ Regular

☐ Right Linear**Question 2****1 / 1 pts**

Given the grammar:

$S \rightarrow aS$
 $S \rightarrow cA$
 $A \rightarrow bA$
 $A \rightarrow dB$
 $B \rightarrow d$

Which type of grammar is it.

☒ Regular☒ Right Linear☐ Left Linear☒ Linear☒ Context free**Incorrect****Question 3****0 / 1 pts**

Which of the following statement is correct?

- A) All Regular grammar are context free but not vice versa
- B) All context free grammar are regular grammar but not vice versa
- C) Regular grammar and context free grammar are the same entity
- D) None of the mentioned

☐ C

☐ D☒ B☐ A

Incorrect

Question 4**0 / 1 pts**

Which of the following grammars describes the same language as $0^n 1^m$ where $m \leq n$?

A. $S \rightarrow 0S1 \mid \lambda$ B. $S \rightarrow 0S1 \mid S1 \mid \lambda$ C. $S \rightarrow 0S1 \mid 0S \mid \lambda$ D. $S \rightarrow SS \mid 0 \mid 1 \mid \lambda$ ☐ C☒ B☐ D☐ A**Question 5****1 / 1 pts**

Consider the following statements about the context free grammar $G = \{S \rightarrow SS, S \rightarrow ab, S \rightarrow ba, S \rightarrow \lambda\}$

Which combination below expresses all the true statements about ?

- I. G is ambiguous
- II. G produces all strings with equal number of a's and b's
- III. G can be accepted by a deterministic PDA.

- ☒ A I only
- ☐ B I and III only
- ☐ C II and III only
- ☐ D I, II and III

☐ A

☐ C

☒ D

☐ B

Question 6

1 / 1 pts

$R \rightarrow R|T \quad T \rightarrow \lambda$ is an ambiguous grammar

☒ True

☐ False

Quiz Score: **4** out of 6