

Quiz 5B: Context Free Grammar

CS 212 Nature of Computation

Habib University — Fall 2023

Total Marks: 10
Duration: 10 minutes

Date: September 20, 2023
Time: 830–840h

Student ID: _____

Student Name: _____

1. (10 points) Consider the grammar given by the following rule.

$$A \Rightarrow A \circ A \mid A \wr A \mid 0 \mid 1$$

Use the string, $0 \circ 1 \wr 1$, to show that the grammar is ambiguous.

Solution: The string, $0 \circ 1 \wr 1$, has two different parse trees for the given grammar as shown below. Therefore the grammar is ambiguous.

