1. (1 point) Name:

CS 315 - Programming Languages
Fall 2023-2024
Section 3
Quiz 3

2. (99 points)

**Question:** What are the strings in the language specified by the following grammar? Is it ambiguous? Does it have any conflicts? If so, what type of conflicts?

```plaintext
%token V Y Z

s: V a Z V
   | V b V
a: Y ;
b: Y Z ;

Answer:
L = \{VYZV\}
The grammar is ambiguous, because there are two parse trees for the string VYZV, as shown below:

```
```

It has a shift/reduce conflict on token Z.
On token Z, the a rule reduces while the pointer on b rule shifts.