


# Week 4 Quiz

Read the questions carefully and check exactly ONE option

\* This form will record your name, please fill your name.

1. Grammar  $E \rightarrow T E'$ ,  $E' \rightarrow +T E' \mid \epsilon$ ,  $T \rightarrow F T'$ ,  $T' \rightarrow *F T' \mid \epsilon$ ,  $F \rightarrow id \mid (E)$  is (2 Points)

- ☐ Ambiguous
- ☐ Depends on given string
- ☐ Ambiguous for certain pair of terminal
- ☒ Unambiguous 

2. Given the following expression grammar:

$E \rightarrow E * F \mid F + E \mid F$

$F \rightarrow F - F \mid id$

Which of the following is true? (2 Points)

- ☐ \* has higher precedence than +
- ☐ - has higher precedence than \*
- ☐ + and - have same precedence
- ☐ + has higher precedence than \*

3. Which of the following systems describes syntax of a programming language? (2 Points)

☐ Linear bounded automaton

☐ Finite automaton

☒ Syntax directed definition ✓

☐ Generative grammar

4. Consider the following context free grammar:

**list**  $\rightarrow$  **ids;**

**ids**  $\rightarrow$  **id,ids | id**

Which of the following is a sentential form for this language?

(2 Points)

☐ id,id,ids;

☐ ids,ids;

☐ ids,id,id;

☐ all of the above

5. A grammar that produces more than one parse tree for some sentence is called

(2 Points)

☒ Ambiguous ✓

☐ Regular

☐ Unambiguous

☐ None of these

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