EXAM II Part I

Due Oct 17 at 11:59pm   **Points** 45   **Questions** 15
Available Oct 15 at 12am - Oct 17 at 11:59pm   **Time Limit** 45 Minutes

Instructions

This is the first part of Exam II. It is multiple choice and worth 45 points. The second part will be free response and you will need to write your solutions to the problems and then upload to Canvas

Attempt History

	Attempt	**Time**	**Score**
LATEST	**Attempt 1**	23 minutes	30 out of 45

⚠ Correct answers are hidden.

Score for this quiz: **30** out of 45
Submitted Oct 16 at 9:45pm
This attempt took 23 minutes.

Question 1	**3 / 3 pts**

For LL(1) parsers, the following must happen:

○ Grammar can be ambiguous but no left recursion

◉ Grammar must be free of left recursion and not ambiguous

○ Grammar can have left recursion but not ambiguous

○ Grammar can be ambiguous and have left recursion as well.

Question 2	**3 / 3 pts**

A type mismatch when parsing a string in a grammar is an example of a
_____

- ○ Lexical error

- ○ Logical error

- ○ Syntactic error

- ◉ Semantic error

Incorrect

Question 3   0 / 3 pts

Which of the following is true?

- ○ Shift-Reduce conflicts never occur on LR(1) parsers

- ○ Reduce-Reduce conflicts never occur in Shift-Reduce parsers

- ○ Handle of a string is a substring that matches the right hand side of a production

- ◉ Handle replaces the bottom item on a stack of symbols from a string

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Incorrect

Question 4   0 / 3 pts

A grammar can have _____

- ○ The above two are correct

○ A non-terminal A that can be present in any sequential form

○ A non-terminal A that cannot derive any string of terminals

◉ Neither solution is correct

Question 5   3 / 3 pts

The parser could overcome a possible error in the program by deleting an extra parenthesis in the code which was unintended by the programmer. What type of error recovery strategy is this?

○ Trivial error recovery

◉ Phase error recovery

○ Global correction

○ Panic mode recovery

Incorrect

Question 6   0 / 3 pts

How can backtracking be avoided in a predictive parser?

◉ All these options are correct

○ The use of FIRST and FOLLOW functions

○ Depth first processing of input strings

○ The use of a lookahead

Question 7   3 / 3 pts

The grammar will be meaningless if _____

○ Terminal set and non-terminal sets ae not mutually exclusive (not disjoint)

○ Left hand side of all productions is a single terminal

○ Left hand side of a production has no non-terminal

◉ All the suggestions are correct

Question 8   3 / 3 pts

Handle pruning is the technique used to obtain

○ First and Follow of nonterminals

○ canonical derivation sequence

◉ canonical reduction sequence

○ predictive parsing of strings

Incorrect

Question 9   0 / 3 pts

Which of the following is true about bottom-up parsers?

○ Left recursion is not a problem

○ Input is processed left to right in reverse order

○ Input is processed from right to left

○ Grammar must be free of left recursion

Incorrect

Question 10   0 / 3 pts

What type of error is encountered by the parser when there is a misspelling of a keyword?

○ Logical error

○ Semantic error

◉ Syntactic error

○ Lexical error

Question 11   3 / 3 pts

Suppose the action to be taken while parsing a string by the SLR parser is "Reduce A → + T F" where T and F are nonterminals. How many states need to be popped from the stack?

○ 1

○ 4

○ 2

◉ 3

Question 12   3 / 3 pts

Given a nonterminal A, which of the following statements is true about FIRST(A) and FOLLOW(A)?

○ FIRST(A) can be a nonterminal

◉ FIRST(A) can be ε

○ FOLLOW(A) can be ε

○ FOLLOW(A) cannot be $

Question 13   3 / 3 pts

Determine the correct statement from below:

○ Regular expressions and grammar can be used interchangeably

○ All grammar can be expressed using Regular expressions

○ Some regular expressions cannot be expressed using grammar

◉ All regular expressions can be expressed using grammar

Question 14   3 / 3 pts

The strings that are reduced during the reverse of a rightmost derivation are called _____

◉ Handles

○ Terminals

○ Pointers

○ Derivations

Question 15   3 / 3 pts

The errors that can be pointed out by the compiler are known as

_____

⊙ Syntax errors

○ Logical errors

○ Internal errors

○ Semantic errors

Quiz Score: **30** out of 45