

CS 442/542 Fall 2020 Quiz 1

Name: _____

1. For each term shown below put the letter of the phrase (on the accompany page) that best (of the available choices) describes the word. (no letter should be used more than once.)

a. Finite Automata

b. Regular Expression

c. Scanner Generator

d. Fixed-Point Computations

e. Symbol table

f. Complete Finite Automata

g. Parser

h. Scanner

i. Content Free Grammar

j. Intermediate Representation

- A. An example of a compiler writing tool that takes as input the specification of the tokens of the language. The specification of the tokens is done with regular expressions.
- B. An abstract machine that recognizes a language specified by a regular expression
- C. Binary format with all external references resolved
- D. Part of a compiler that groups characters into tokens
- E. A notation used to specify the syntax of a programming language or legal sequences of tokens in the programming language
- F. Part of a compiler that determines if the input stream is a sentence in the source language
- G. Code created by the front end of a compiler for later use by the back end of a compiler
- H. Part of a compiler that generates machine code
- I. A data structure that allows information to be associated with identifiers
- J. A notation used to specify tokens
- K. Operations that cannot be completely translated into machine code before execution
- L. Context-sensitive restrictions such as the requirement that variables are declared and have the correct data type in order for a program to be considered valid (legal and meaningful)
- M. Semantics used to specify what a program computes
- N. A finite automata that explicitly includes all error transitions
- O. A compiler that aims to satisfy multiple optimization criteria
- P. Computations that terminate when they reach a state where further iterations produce the same answer
- Q. Values attached to a CFG that represent semantics properties such as type, value or correctness.
- R. A compiler whose target machine can be changed without rewriting the machine independent components.
- S. An example of a compiler writing tool that takes as input the specification of the programming language. The specification of the programming language is done with a context free grammar.
- T. Machine code for a machine architecture augmented with operating system routines