Name: _____ **Date:** _____

Will Your Logic Hold? Senior CS Programming Concepts Quiz

Challenge your understanding of memory allocation and control flow beyond basic syntax by identifying how data types and iteration patterns impact system performance.

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1. When declaring a constant for a mathematical value like Pi in a high-level language, which keyword typically ensures the variable's value remains immutable throughout the program execution?

A. volatile
B. const
C. static
D. mutable

2. A 'while' loop is categorized as a pre-test loop because it evaluates the condition before executing the code block within the loop.

A. True
B. False

3. In modular programming, the process of passing a copy of a variable's value to a function so that the original data remains unchanged is known as passing by _____.

A. Reference
B. Address
C. Value
D. Pointer

4. Which programming structure is most efficient for selecting one of many execution paths based on the value of a single integer or character variable?

A. Nested if-else statements
B. Boolean logic gates
C. Switch (or Case) statement
D. For-in loop

5. An 'infinite loop' occurs when the _____ expression of a loop never evaluates to false.

A. Initialization
B. Termination
C. Iteration
D. Declaration

6. Recursive functions are blocks of code that call themselves to solve smaller instances of the same problem.

A. True
B. False

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7. Which data type would be most appropriate for storing a user's response to a 'Yes/No' prompt on a digital application form?

A. String
B. Integer
C. Boolean
D. Float

8. In most programming languages, the placeholder names defined in a function's header are called _____, while the actual values passed during the call are called arguments.

A. Parameters
B. Variables
C. Attributes
D. Globals

9. A 'global variable' is a variable that is accessible only within the specific function where it was declared.

A. True
B. False

10. Which of the following describes the programming concept of 'dry' (Don't Repeat Yourself) most accurately through the use of functions?

A. Increasing file size with redundant scripts
B. Reducing code duplication by creating reusable logic blocks
C. Hard-coding values to avoid variable declaration
D. Using loops instead of conditional statements