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**Grade** 9.00 out of 10.00 (90%)

### Question 1

Correct

Mark 1.00 out of 1.00

In assembly language, how is a linked list typically implemented?

- a. Using recursion
- b. Using an array
- c. Using pointers ✓
- d. Using loops



Your answer is correct.

### Question 2

Correct

Mark 1.00 out of 1.00

When might you need to perform program translation among different programming languages?

- a. During hardware design
- b. For software documentation
- c. When porting software across platforms ✓
- d. Only in academic research

### Question 3

Correct

Mark 1.00 out of 1.00

What is the purpose of high-level data structures in assembly language?

- a. Efficient memory management ✓
- b. Faster program execution
- c. Improved code readability
- d. Easier debugging

**Question 4**

Correct

Mark 1.00 out of 1.00

Which data structure is commonly used to represent a collection of elements with a Last-In-First-Out (LIFO) order?

- a. Queue
- b. Stack ✓
- c. Linked List
- d. Tree

Your answer is correct.

**Question 5**

Correct

Mark 1.00 out of 1.00

Which phase of program translation involves converting high-level code into assembly language code?

- a. Parsing
- b. Lexical analysis
- c. Code generation ✓
- d. Semantic analysis

**Question 6**

Incorrect

Mark 0.00 out of 1.00

Which phase of program translation involves checking for errors in the source code?

- a. Lexical analysis
- b. Semantic analysis ✗
- c. Syntax analysis
- d. Code generation

**Question 7**

Correct

Mark 1.00 out of 1.00

In the context of program translation, what is syntax?

- a. The meaning of program statements
- b. The structure of program statements ✓
- c. The size of the program
- d. The documentation of the program

**Question 8**

Correct

Mark 1.00 out of 1.00

What does a linker do during program translation?

- a. Translates assembly language to machine language
- b. Combines multiple object files into a single executable ✓
- c. Translates high-level source code to assembly language
- d. Optimizes the code for better performance

Your answer is correct.

**Question 9**

Correct

Mark 1.00 out of 1.00

When translating a program from one language to another, what is a potential challenge related to semantics?

- a. Incompatible data types ✓
- b. Variable naming conventions
- c. Line-by-line code translation
- d. Code documentation

**Question 10**

Correct

Mark 1.00 out of 1.00

In the context of program translation, what are semantic differences?

- a. Differences in variable names
- b. Differences in the meaning of program statements ✓
- c. Differences in program size
- d. Differences in program structure