**Section A: Multiple Choice Questions**

1. Which of the following is the correct syntax for including a header file in C++?

a) #include <header.h>

b)#include "header.h"

c) include <header.h>

d) #include <header>

2. Which of the following correctly declares an integer variable in C++?

a) int number;

b) integer number;

c) num int;

d) `int number()

3. Which of the following is a correct comment in C++?

a) // This is a comment

b)/\* This is a comment \*/

c) \*\* This is a comment \*\*

d) Both a and b

4. What is the output of the following code?

**int a = 5;**

**int b = 10;**

**cout << a + b;**

a) 15

b) 510

c) 5 10

d) Error

5. Which of the following statements is used to create a loop that executes 10 times?

a) for (int i = 0; i < 10; i++)

b) while (i < 10)

c)do { } while (i < 10);

d) repeat 10 times

**Section B: True/False**

1. The `main` function is the entry point of a C++ program.

- True

- False

2. In C++, you use the `#include` directive to include standard library functions.

- True

- False

3. A `for` loop and a `while` loop can achieve the same results.

- True

- False

4. The `cout` object is used to output data to the console.

- True

- False

5. C++ is a purely procedural programming language.

- True

- False

**Section C: Short Answer Questions**

1. Write a simple C++ program that prints "Hello, World!" to the console.

2. What is a variable in C++? Give an example.

3. Explain the difference between `int` and `float` data types in C++.

4. How do you write a single-line comment and a multi-line comment in C++?

5. What is the purpose of a loop in programming?

**Section D: Coding Exercises**

1. Write a C++ program to add two numbers entered by the user and display the result.

2. Write a C++ program that uses a `for` loop to print numbers from 1 to 10.

3. Write a C++ program that calculates and prints the factorial of a number entered by the user.

4. Write a C++ program that uses an array to store 5 integers entered by the user and then prints them.

5. Write a C++ program that uses a `while` loop to sum numbers from 1 to 100.

**Section E: Debugging**

Find and fix the errors in the following C++ code snippets:

1. Code Snippet 1

**#include <iostream>**

**using namespace std;**

**int main() {**

**cout << "Enter a number: ";**

**int num;**

**cin >> num**

**cout << "You entered: " << num << endl;**

**return 0;**

**}**

2. Code Snippet 2

**#include <iostream>**

**using namespace std;**

**int main() {**

**for (int i = 0; i < 5; i++) {**

**cout << "i: " << i << endl;**

**}**

**return 0;**

**}**

3.Code Snippet 3

**#include <iostream>**

**using namespace std;**

**int main() {**

**int a = 10**

**int b = 20;**

**cout << "Sum: " << a + b << endl;**

**return 0;**

**}**