1. Which is NOT a valid C++ identifier?
   a) _temp
   b) 2ndPlace
   c) myVar
   d) total_count

2. True/False: const int MAX_SIZE = 100; can be modified later in the program.

   What is printed when temp is 25?
   ```
   if (temp > 20) {
      cout << "Warm";
   } else if (temp >= 25) {
      cout << "Hot";
   } else {
      cout << "Cool";
   }
   ```
3. What is the result of the following expression if x = 3 and y = 15?
   !(x < 5 && y > 10)

4. True/False: Nested if-else statements are allowed in C++.

5. What is the output?
   ```
   for (int i = 0; i < 4; i++) {
      if (i == 2) continue;
      cout << i << " ";
   }
   ```
6. True/False: The break statement can only be used in loops.

7. True/False: A loop condition can contain function calls.

8. What happens if a switch case doesn't have a break?
   a) Compilation error
   b) Program crashes
   c) Execution falls through to next case
   d) Returns to main

9. What is values[3] after execution?
   ```
   int values[5] = {1, 2, 3, 4, 5};
   values[3] = values[1] + values[2];
   ```
10. Which method adds an element to the end of a vector?
    a) insert()
    b) push_back()
    c) add_back()
    d) append()

11. True/False: Vectors automatically resize when elements are added.

12. True/False: const member functions cannot modify member variables.

13. What does this code do?
```cpp
int main() {
    ifstream inFile("data.txt");
    string line;
    while (getline(inFile, line)) {
        cout << line << endl;
    }
    inFile.close();
    return 0;
}
```

14. True/False: You can throw any data type as an exception.

15. Briefly explain in your own words, what is exception handling for?

16. True/False: Every recursive function must have at least one base case to prevent infinite recursion.

17. What is the correct order of exception handling blocks?
   a) catch -> try -> throw
   b) throw -> try -> catch
   c) try -> catch -> throw
   d) try -> throw -> catch

18. True/False: The catch(...) block is an invalid block

19. Write a function that throws a std::out_of_range exception if an index is beyond the bounds of an array.
   int getElement(int arr[], int size, int index)

20. Create a class named Rectangle that has:
Two private member variables: length and width (both doubles)
A public constructor that takes two parameters to initialize length and width
A public member function calculateArea() that returns the area of the rectangle (length × width)