

Midterm 2 Study Guide Results

ⓘ Correct answers are hidden.

Submitted Jun 28 at 8:59pm



Question 11 / 1 pts

Match each item with the correct statement below.

| | |
|---|---------------|
| Actions that occur after the loop is complete | postcondition |
| Actions occurring inside the loop's body | operation |
| Actions that occur before the loop is encountered | precondition |
| A test the determines if the loop should be entered | bounds |

Question 21 / 1 pts

A **guarded** loop is also known as a **test-at-the-top** loop.

☒ True

☐ False

Question 31 / 1 pts

In the classic *for* loop, which portion of code is executed **after the last statement in the loop body**?

☐ condition expression

☒ update expression

☐ None of these

☐ initialization statement

☐ assignment statement

☐ first statement following the loop

Question 41 / 1 pts

This idiomatic pattern is used to count from one value to another.

```
for (int i = 0; i < 10; i++)
    cout << i;
cout << endl;
```

☐ True

☒ False

Question 5

1 / 1 pts

This idiomatic pattern is used to count from one value to another.

```
for (int i = 1; i <= 10; i++)
    cout << i;
cout << endl;
```

☒ True☐ False

Question 6

1 / 1 pts

Loop bounds often used in scientific and mathematical applications.

☐ data bounds☐ None of these☒ limit bounds☐ sentinel bounds

Question 7

1 / 1 pts

The highlighted section below illustrates.

While more-characters:

```
Given: the variable str is a string (may be empty)
Create the counter variable, initialized to -1
If the variable str has any characters then
{
    Set counter to 0
    Create the variable current-character as a character
    Place the first character in str into current-character
    While more-characters and current-character not a period
    {
        Add one to (or increment) the counter variable
        Store the next character from str in current-character
    }
    If current-character is a period then
        Add one to the counter to account for the period.
    Else
        Set counter to -2
}
If counter is -1 the string was empty
Else if counter is -2 there was no period
```

☒ a necessary condition☐ a postcondition☐ None of these☐ a loop guard☐ a boundary condition☐ an intentional condition

Question 8

1 / 1 pts

What prints?

```
string str = "Hello";
for (auto i = 0, len = str.size(); i < len; i++)
```



```
cout << str.at(i);
```

☒ Does not compile

☐ Crashes when run

☐ Hello

☐ Undefined behavior

☐ Hell

Question 9

1 / 1 pts

Which line represents the *intentional bounds* in this loop?

```
1.    string s("Hello CS 150");
2.    while (s.size())
3.    {
4.        if (s.at(0) == 'C') break;
5.        s = s.substr(1);
6.    }
7.    cout << s << endl;
```

☒ 4

☐ 2

☐ 5

☐ None of these

Question 10

1 / 1 pts

Examine this code. Which is the best prototype?

```
string s = "dog";
cout << upper(s) << endl;    // DOG
cout << s << endl;          // dog
```

☐ string upper(string);

☒ string upper(const string&)

☐ string upper(string&)

☐ void upper(string&)

☐ None of these

Question 11

1 / 1 pts

What kind of error is this?

```
ex1.cpp:7:9: warning: missing terminating '"' character
    a = "hello world';
        ^
ex1.cpp:7:9: error: expected expression
```

☐ Operating system signal or trap

☒ Syntax error (mistake in grammar)

☐ None of these



☐ Runtime error (throws exception when running)

☐ Type error (wrong initialization or assignment)

☐ Compiler error (something is missing when compiling)

☐ Linker error (something is missing when linking)

Question 12

1 / 1 pts

What prints?

```
void fn(int, double, double&) { cout << "A" << endl; }
void fn(int, int, double&) { cout << "B" << endl; }
void fn(int, int, double) { cout << "C" << endl; }
void fn(int, int, int) { cout << "D" << endl; }

int main()
{
    fn(1, 2, 3.5);
}
```

☐ A

☐ Syntax error: no candidates

☐ D

☐ Syntax error: ambiguous

☒ C

☐ B

Question 13

1 / 1 pts

An incomplete, yet compilable, linkable and executable function is called a _____ ?

☐ declaration

☒ stub

☐ None of these

☐ prototype

Question 14

1 / 1 pts

Match each item with the correct statement below.

| | |
|--|----------------|
| File containing the declarations or prototypes | interface |
| Program which uses the functions in a library. | client |
| File containing the function definitions | implementation |
| File which contains instructions for building your program | makefile |

Question 15

1 / 1 pts

An ***undeclared*** error message is a runtime error.

True

False

Question 16

0 / 1 pts

What prints here?

```
auto a = 3, b = 3;
cout << a == b ? "panda" : "tiger" << endl;
```

Does not compile

tiger

panda

Undefined behavior

Crashes when run

Question 17

1 / 1 pts

What is the output of the following?

```
bool token1 = true;
while (token1)
{
    for (int i = 0; i < 5; i++)
    {
        cout << "Hello there" << endl;
    }
    token1 = false;
}
```

“Hello there” will be displayed 5 times.

No output.

“Hello there” will be displayed infinite times.

No output because of compilation error.

Question 18

1 / 1 pts





Which line runs the prt program and stores its output in a new file named x.data?

- ☒ ./prt > x.data
- ☐ ./prt >> x.data
- ☐ ./prt < x.data
- ☐ None of these
- ☐ ./prt << x.data
- ☐ ./prt >1 x.data

Question 191 / 1 pts

When using cin >> ch; to read a character, leading whitespace is not skipped.

- ☐ True
- ☒ False

Question 201 / 1 pts

In C++, the standard stream stderr is used to initialize the cout object.

- ☐ True
- ☒ False

Incorrect

Question 210 / 1 pts

What does this code do?

```
ifstream in("temp.txt");
char x;
int i{0};
while (in >> x) i++;
cout << i << endl;
```

- ☐ Counts the number of lines in the file
- ☐ Gets stuck in an endless loop
- ☐ Counts the number of non-space characters in the file
- ☒ Counts the number of words in the file
- ☐ Counts the number of digits in the file
- ☐ Counts the number of characters in the file

Question 221 / 1 pts

The operating system stream stdin is connected to your monitor by default.

- ☐ True

☒ False

Question 23

1 / 1 pts

Match each item with the correct statement below.

Has a single char& parameter

get() ▾

Returns the last character read to the input stream

unget() ▾

Examines, but does not read the next character in an input stream

peek() ▾

Replaces the last character read with any character

putback() ▾

Called implicitly when an input statement is used as a test condition.

fail() ▾

A predicate function

isalpha() ▾

Converts its value argument to a character and sends it to output.

put() ▾



Question 24

1 / 1 pts

Formatted I/O means that you read and write data line-by-line.

☐ True

☒ False

Question 25

1 / 1 pts

To use a disk file as a data stream source or sink, use the <ifstream> header

☐ True

☒ False