

Midterm 3 Study Guide

Due No due date Points 25 Questions 25 Time Limit 30 Minutes Allowed Attempts Unlimited

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Attempt History

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KEPT	Attempt 23	21 minutes	24 out of 25
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	Attempt 1	27 minutes	21 out of 25



ⓘ Correct answers are hidden.

Submitted Jul 19 at 1:45pm

Question 1

1 / 1 pts

The C++11 standard library provides the function `stoi()` to convert a string to an integer. Which library is it found in?

- ☐ `cmath`
- ☐ `cnvt`
- ☐ `iostream`
- ☒ `string`
- ☐ None of these

Question 2

1 / 1 pts

The heading of a `try` block can contain ellipses in place of a parameter.

- ☐ True
- ☒ False

Question 3

1 / 1 pts

The directives `#if defined(symbol)` and `#ifndef symbol` mean, essentially, the same thing.

- ☐ True
- ☒ False

Question 4

1 / 1 pts

Match each item with the correct loop form below.

Indefinite limit loop that reduces its input

while (n != 0) { n /= 2; }



Indefinite limit loop that uses successive approximations	<div>while(abs(g1 – g2) >= EPSILON</div>
Counter-controlled symmetric loop for producing a sequence of data	<div>for (int i=12; i <= 19; i++) { . . }</div>
Indefinite data loop that uses raw input	<div>while(cin.get(ch)) { . . }</div>
Counter-controlled asymmetric loop for processing characters	<div>for (size_t i=0, len=s.size(); i < l</div>
Iterator loop that may change its container	<div>for (auto& e : col) { . . }</div>
Iterator loop that cannot change its container	<div>for (auto e : col) { . . }</div>
Counter-controlled loop for processing substrings	<div>for (size_t i=4, slen=4, len=s.siz</div>
Indefinite data loop that uses formatted input	<div>while(cin >> n) { . . }</div>



Question 51 / 1 pts

Which fragment completes this code segment?

```
string fmt(double n, int decimals)
{
    ostringstream out;
    out << fixed << setprecision(decimals);
    out << n;
    return _____;
}
```

☐ out

☒ out.str()

☐ out.to_string()

☐ None of these

☐ n

Question 61 / 1 pts

When you throw an exception, control immediately jumps out of the current try block.

☒ True

☐ False

Question 71 / 1 pts

The function ____ returns a string containing an appropriate message.

☐ log

☐ where

☒ what

☐ when

Question 81 / 1 pts

To use different versions of a function depending on the platform is called ***conditional compilation***.

☒ True

☐ False

Question 91 / 1 pts

After writing data to an ostringstream object named os, you can retrieve the string it contains by using:

☐ os.to_string()

☐ to_string(os)

☐ static_cast<string>(os);

☒ os.str()

☐ None of these

Question 101 / 1 pts

Given the following structure and variable definitions, which data members are *default initialized*?

```
struct Employee
{
    long empID;
    std::string lastName;
    double salary;
    int age;
};

Employee bob{777, "Zimmerman", 5000000.0, 76};
```

☐ age

☐ lastName

☐ salary

☒ None of these

☐ empID

Question 111 / 1 pts

The declaration: vector<string> v(5); creates a vector containing five empty string objects.

☒ True

☐ False



Incorrect

Question 120 / 1 pts

Which of these are true?

```
int main()
{
    vector<int> v{1, 2, 3};
    for (auto i = v.size(); i > 0; i--)
        cout << v.at(i) << " ";
    cout << endl;
}
```

☐ Compiler error (does not compile)

☒ Crashes when run

☒ Prints 3 2 1

☒ Issues a compiler warning, but no error

☐ Endless loop (may crash, but not necessarily)

Question 131 / 1 pts

Examine the following definition. empID is a _____.

```
struct Employee
{
    long empID;
    std::string lastName;
    double salary;
};
```

☐ structure tag

☒ data member

☐ None of these

☐ type-id

☐ field

☐ instance variable



Question 141 / 1 pts

The push_back member function adds elements to the beginning of a vector.

☐ True

☒ False

Question 151 / 1 pts

Structure variables should be passed to functions *by reference*.

☒ True

☐ False

Question 161 / 1 pts

A vector represents a linear homogeneous collection of data.

☒ True

☐ False

Question 171 / 1 pts

The declaration: vector<string> v(5, "bob"); creates a vector containing five string objects, each containing "bob".

☒ True

☐ False

Question 181 / 1 pts

Which returns the last pixel on the first row of this image?

```
Pixel *p;    // address of pixel data
int w, h;    // width and height of image
```

☐ None of these are correct

☒ p[w - 1]

☐ *p[w - 1]

☐ p + w - 1

☐ p[w] - 1

Question 191 / 1 pts

Which area of memory is your program code stored in?

☐ Stack

☐ Uninitialized Data

☐ Initialized Data

☒ Text

☐ Heap

Question 201 / 1 pts

What is the address of the first pixel in the last row of this image?

```
Pixel *p;    // address of pixel data
int w, h;    // width and height of image
```

☐ None of these are correct

☐ p + w * h

☒ p + w * (h - 1)

☐ $p + w + (h - 1)$

☐ $p + w + h$

Question 211 / 1 pts

If p is a pointer to a structure, and the structure contains a data member x , you can access the data member by using the notation: $*p \rightarrow x$

☐ True

☒ False

Question 221 / 1 pts

Which assigns a value to the first position in *Letters*?

```
char letters[26];
```

☐ letters.front() = 'a';

☒ letters[0] = 'a';

☐ letters[1] = 'b';

☐ letters = 'a';

☐ letters[0] = "a";

Question 231 / 1 pts

In C++ assigning one array to another is illegal.

☒ True

☐ False

Question 241 / 1 pts

All of these are legal C++ statements; which of them uses the C++ *dereferencing operator*?

```
int a = 3, b = 4;
```

☐ None of these use the dereferencing operator.

☐ `int *p = &b;`

☐ `int y = a * b;`

☐ `z *= a;`

☒ `int x = *p;`

Question 251 / 1 pts

Examine the following code. What is stored in *a* after it runs.

```
int f(int * p, int x)
{
    *p = x * 2;
    return x / 2;
}
. . .
int a = 3, b, c;
c = f(&b, a);
```

☒ 3

☐ 2

☐ 6

☐ Does not compile

☐ 1

