

CS6312: Program Construction II [S18]

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Inheritance (Ch 11)

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Q02

QUIZ NAVIGATION

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Started on	Sunday, January 28, 2018, 11:59 AM
State	Finished
Completed on	Sunday, January 28, 2018, 12:09 PM
Time taken	10 mins
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

1.00 points out of 1.00

Flag question

A instance of a subclass is also an instance of its superclass.

Select one:

☐

a. false

☒

b. true ✓

Question 2

Correct

1.00 points out of 1.00

Flag question

What is the output of running class C?

```
class A {
    public A() {
        System.out.println(
            "The default constructor of A is invoked");
    }
}

class B extends A {
    public B() {
        System.out.println(
            "The default constructor of B is invoked");
    }
}

public class C {
    public static void main(String[] args) {
        B b = new B();
    }
}
```

Select one:

☐

a. "The default constructor of B is invoked" "The default constructor of A is invoked"

☐

b. "The default constructor of B is invoked"

☒

c. "The default constructor of A is invoked" "The default constructor of B is invoked" ✓

☐

d. Nothing displayed

☐

e. "The default constructor of A is invoked"

Question 3

Correct

1.00 points out of 1.00

Flag question

Which of the following is incorrect?

Select one:

☐

a. A constructor may invoke a static method.

☐

b. A constructor invokes its superclass no-arg constructor by default if a constructor does not invoke an overloaded constructor or its superclass's constructor.

☐

c. A constructor may invoke an overloaded constructor.

☐

d. A constructor may be private.

☒

e. A constructor may be static. ✓

Question 4

Correct

1.00 points out of 1.00

Flag question

In OOP, you declare a class that extends another class. This is called _____.

Select one:

☒

a. inheritance ✓

☐

b. abstraction

☐

c. polymorphism

☐

d. encapsulation

Question 5

Correct

1.00 points out of 1.00

Flag question

Consider the following declaration for a class A.

```
class A {
    private int x;
    private int y;

    public A(int x, int y) {
        this.x = x;
        this.y = y;
    }
}
```

Class B is a subclass of A. Which of the following can be constructors in B?

I:

```
public B() {
}
```

II:

```
public B(int x, int y) {
    super(x, y);
}
```

III:

```
public B() {
    super(0, 0);
}
```

IV:

```
public B(int x, int y) {
    this.x = x;
    this.y = y;
}
```

Select one or more:

☒

a. II ✓

☐

b. I

☒

c. IV ✗

☒

d. III ✓

Question 6

Correct

1.00 points out of 1.00

Flag question

Object-oriented programming allows you to derive new classes from existing classes. This is called _____.

Select one:

☒

a. inheritance ✓

☐

b. generalization

☐

c. abstraction

☐

d. encapsulation

Question 7

Correct

1.00 points out of 1.00

Flag question

Analyze the following code:

```
public class Test extends A {
    public static void main(String[] args) {
        Test t = new Test();
        t.print();
    }
}

class A {
    String s;

    A(String s) {
        this.s = s;
    }

    public void print() {
        System.out.println(s);
    }
}
```

Select one or more:

☐

a. The program does not compile because Test does not have a default constructor Test().

☐

b. The program compiles, but it has a runtime error due to the conflict on the method name print.

☒

c. The program would compile if a default constructor A(){ } is added to class A explicitly. ✓

☒

d. The program has an implicit default constructor Test(), but it cannot be compiled, because its super class does not have a default constructor. The program would compile if the constructor in the class A were removed. ✓

Question 8

Correct

1.00 points out of 1.00

Flag question

The order in which modifiers appear before a class or a method is important.

Select one:

☐

a. true

☒

b. false ✓

Question 9

Correct

1.00 points out of 1.00

Flag question

Superclasses contain more features than their subclasses.

Select one:

☐

a. true

☒

b. false ✓

Question 10

Correct

1.00 points out of 1.00

Flag question

Given two reference variables t1 and t2, if t1.equals(t2) is true, t1 == t2 _____.

Select one:

☒

a. may be true or false ✓

☐

b. is always true

☐

c. is always false

Finish review