CS6312: Program Construction II [S18]

QUIZ NAVIGATION

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Time taken	10 mins 1 sec
Grade	**5.25** out of 10.00 (**53**%)

Question 1
Partially correct
0.75 points out of 1.00
Flag question

Which of the following statements are true?

Select one or more:

- a. Override the hashCode method whenever the equals method is overridden. By contract, two equal objects must have the same hash code.
- b. Override the methods equals and toString defined in the Object class whenever possible. ✓
- c. A public default no-arg constructor is assumed if no constructors are defined explicitly. ✓
- d. You should follow standard Java programming style and naming conventions. Choose informative names for classes, data fields, and methods. ✓

Question 2
Partially correct
0.50 points out of 1.00
Flag question

Given the following code, find the compile error.

```
public class Test {
  public static void main(String[] args) {
    m(new GraduateStudent());
    m(new Student());
    m(new Person());
    m(new Object());
  }

  public static void m(Student x) {
    System.out.println(x.toString());
  }
}

class GraduateStudent extends Student {
}

class Student extends Person {
  public String toString() {
    return "Student";
  }
}

class Person extends Object {
  public String toString() {
    return "Person";
  }
}
```

Select one or more:

- a. m(new Person()) causes an error ✓
- b. m(new Student()) causes an error
- c. m(new GraduateStudent()) causes an error
- d. m(new Object()) causes an error

Question 3
Incorrect
0.00 points out of 1.00
Flag question

Every class has a toString() method and an equals() method.

Select one:

- a. false ✗
- b. true

Question 4
Correct
1.00 points out of 1.00
Flag question

A class design requires that a particular member variable must be accessible by any subclasses of this class, but otherwise not by classes which are not members of the same package. What should be done to achieve this?

Select one:

- a. The variable should be marked public.
- b. The variable should have no special access modifier.
- c. The variable should be marked private and an accessor method provided.
- d. The variable should be marked protected. ✓
- e. The variable should be marked private.

Question 5
Incorrect
0.00 points out of 1.00
Flag question

Which of the following methods override the toString method in the Object class?

Select one:

- a. public String toString(String s) ✗
- b. public void toString(String s)
- c. public String toString()
- d. public static String toString()

Question 6
Correct
1.00 points out of 1.00
Flag question

Every object is an instance of the Object class.

Select one:

- a. false
- b. true ✓

Question 7
Incorrect
0.00 points out of 1.00
Flag question

Analyze the following code.

```
// Program 1:
public class Test {
  public static void main(String[] args) {
    Circle circle1 = new Circle();
    Circle circle2 = new Circle();
    System.out.println(circle1.equals(circle2));
  }
}

class Circle {
  double radius;

  public boolean equals(Circle circle) {
    return this.radius == circle.radius;
  }
}

// Program 2:
public class Test {
  public static void main(String[] args) {
    Circle circle1 = new Circle();
    Circle circle2 = new Circle();
    System.out.println(circle1.equals(circle2));
  }
}

class Circle {
  double radius;

  public boolean equals(Object circle) {
    return this.radius ==
      ((Circle)circle).radius;
  }
}
```

Select one:

- a. Program 1 displays true and Program 2 displays true
- b. Program 1 displays false and Program 2 displays false
- c. Program 1 displays true and Program 2 displays false ✗
- d. Program 1 displays false and Program 2 displays true

Question 8
Correct
1.00 points out of 1.00
Flag question

If a parameter is of the java.lang.Object type, you can pass any object to it. This is known as generic programming.

Select one:

- a. false
- b. true ✓

Question 9
Incorrect
0.00 points out of 1.00
Flag question

Analyze the following code.

```
// Program 1
public class Test {
  public static void main(String[] args) {
    Object a1 = new A();
    Object a2 = new A();
    System.out.println(((A)a1).equals((A)a2));
  }
}

class A {
  int x;

  public boolean equals(A a) {
    return this.x == a.x;
  }
}

// Program 2
public class Test {
  public static void main(String[] args) {
    A a1 = new A();
    A a2 = new A();
    System.out.println(a1.equals(a2));
  }
}

class A {
  int x;

  public boolean equals(A a) {
    return this.x == a.x;
  }
}
```

Select one:

- a. Program 1 displays true and Program 2 displays true
- b. Program 1 displays false and Program 2 displays true
- c. Program 1 displays false and Program 2 displays false ✗
- d. Program 1 displays true and Program 2 displays false

Question 10
Correct
1.00 points out of 1.00
Flag question

You can assign _____ to a variable of Object[] type.

Select one or more:

- a. new char[100]
- b. new int[100]
- c. new String[100] ✓
- d. new java.util.Date[100] ✓
- e. new double[100]

Finish review