



Test Canvas

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Name E3

Description Covers Chapters 6, 7, 8, and 9

Instructions This exam is open-book and open-note. You may not however access the Internet, Eclipse, calculators, personal files or any of the Blackboard course material while taking this exam.

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Question Given the array:

```
String[] greetings = {"hey", "hello, how are you", "what's up", "hi"};
```

What value is at greetings[1]?

- Answer**
- hey
 - hello
 - how are you
 - what's up
 - hi
 - None of these

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10 points [Modify](#) [Remove](#)

Question Which of the following statements is true about the ArrayList?

- Answer** it is part of the java.util package
- it has a fixed, finite size
 - it stores primitive data types
 - its start index is 1 rather than 0
 - added elements are added to the front of the list
 - its speed and memory performance is the same as an array

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Question Given the method header:

```
public int[] manipulate(String[] text)
```

What is the method's return type?

- Answer**
- int
 - int[]
 - String
 - String[]
 - None of these

[◀ Add Question Here](#)

Question 4



Multiple Choice

10 points

[Modify](#)

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Question Assume an int array, candy, stores the number of candy bars sold by a group of children where candy[j] is the number of candy bars sold by child j. Assume there are 12 children in all. Which array correctly computes the number of candy bars sold.

- Answer**
- for (int j=0; j<12; j++) sum += candy[j];
 - for (int j=0; j<12; j++) candy[j] = sum;
 - for (int j=0; j<12; j++) sum = candy[j];
 - for (int j=0; j<12; j++) sum += [j];
 - for (int j=1; j<=12; j++) sum += candy[j];
 - for (int j=0; j<=12; j++) sum += candy[j];

[◀ Add Question Here](#)

Question 5



Multiple Choice

10 points

[Modify](#)

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Question Given the array:

```
int[] myArray = {1,2,3,4,5};
```

what will be the contents of myArray be after being passed into the following function:

```
public void manipulate(int[] numbers)
{
    numbers[3] = numbers[2] * numbers[4];
    numbers[1] = numbers[2] + numbers[4];
    numbers[0] = numbers.length;
    numbers[4] = numbers[3] - numbers[2];
}
```

- Answer**
- {15,8,3,12,9}
 - {4,8,3,15,12}
 - {5,8,3,15,12}
 - {5,6,8,15,1}

[◀ Add Question Here](#)

Question 6

Multiple Answer

10 points

[Modify](#)

[Remove](#)

Question Which of the following are legal ways to declare and instantiate an array of Strings?

Answer

- String s = new String(10);
- ✓ String[] s = new String[10];

- String[] s = 10 * (new String());
- String[10] s = new String[];
- ✓ String[] names = {"Jim","Jon","Jake"};
- String[] names = ["Jim","Jon","Jake"];
- String names = new String["Jim","Jon","Jake"];

[Add Question Here](#)

Question 7

Multiple Choice

10 points

[Modify](#)

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Question The process of inheritance should establish what kind of relationship between the child and the parent?

Answer

- ✓ is-a
- has-a
- static
- not-a

[Add Question Here](#)

Question 8

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question What term is used to reference the parent class in a child class.

Answer

- ✓ super
- this
- parent
- extends

[Add Question Here](#)

Question 9

True/False

10 points

[Modify](#)

[Remove](#)

Question Creating a shadow variable is a good programming practice.

Answer

- True
- ✓ False

[Add Question Here](#)

Question 10

True/False

10 points

[Modify](#)

[Remove](#)

Question Every Java class inherits a functioning toString() method from the Object class.

Answer

- ✓ True
- False

[◀ Add Question Here](#)

Question 11

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Of the classes below, which is most likely to be declared abstract?

Answer

- ✓ Furniture
- Chair
- Desk
- Television Stand

[◀ Add Question Here](#)

Question 12

True/False

10 points

[Modify](#)

[Remove](#)

Question Interfaces are implemented, classes are extended.

Answer

- ✓ True
- False

[◀ Add Question Here](#)

Question 13

Multiple Answer

10 points

[Modify](#)

[Remove](#)

Question Which of the following statements about binding are true?

- Answer** ✓
- it is the process of connecting a method invocation to a method definition
 - it must be done at the time a program is compiled
 - it only occurs with polymorphic references
 - it always takes the same amount of time.

[◀ Add Question Here](#)

Question 14

Multiple Answer

10 points

[Modify](#)

[Remove](#)

Question Which of the following statements about polymorphism are true?

- Answer** ✓
- literally means having many forms
 - ✓ allows a variable to refer to different types of objects over time
 - ✓ allows one to apply a consistent approach to inconsistent behaviors
 - can only be done using inheritance

[◀ Add Question Here](#)

Question 15

True/False

10 points

[Modify](#)

[Remove](#)

Question An interface is a collection of variables and abstract methods.

Answer

- True
- ✓ False

[◀ Add Question Here](#)

Question 16

True/False

10 points

[Modify](#)

[Remove](#)

Question Creating a new Class is the only way to create a new java data type.

Answer

True

✓ False

[◀ Add Question Here](#)

Question 17

Multiple Answer

10 points

[Modify](#)

[Remove](#)

Question Given the non-abstract class B and the class header "public class A extends B implements C" which of the following code snippets will NOT result in a compilation error?

Answer

A myA = new C();

A myA = new A();
myA = new B();

✓

C myA = new A();

C myA = new B();

[◀ Add Question Here](#)

Question 18

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Suppose Animal is an interface that specifies a single method – speak. Now suppose the Dog class implements the Animal interface. In addition to the speak method, the Dog class also has a method called wagTail. Now consider the following code.

```
Animal a = new Dog();  
a.wagTail();
```

Which of the following is true about this code?

Answer

✓

It will result in a compile-time error.

It will result in a run-time error.

It will call the speak method defined in the Animal interface.

It will call the wagTail method defined in the Dog class.

[◀ Add Question Here](#)

Question 19

True/False

10 points

[Modify](#)

[Remove](#)

Question When determining which implementation of a method to invoke, the type of the polymorphic reference is used.

Answer

True

✓ False

[◀ Add Question Here](#)

Question 20

True/False

10 points

[Modify](#)

[Remove](#)

Question Multiple inheritance is how Java gets around only being able to implement one interface per class.

Answer True
✓ False

[◀ Add Question Here](#)

Question 21

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following is true of the protected visibility modifier:

Answer ✓ provides the best possible encapsulation that permits inheritance
can only be applied to class variables, not methods
is required if a variable or method is to be inherited
prevents a variable or method from being accessed by subclasses

[◀ Add Question Here](#)

Question 22

True/False

10 points

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[Remove](#)

Question The compareTo() method defined in the Comparable interface returns 0 if the two items are equal, a positive value to indicate greater than, and a negative value to indicate less than.

Answer ✓ True
False

[◀ Add Question Here](#)

Question 23

True/False

10 points

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Question Declaring a class as final means that the class cannot be inherited, even if none of its methods are overridden.

Answer ✓ True
False

[◀ Add Question Here](#)

Question 24

Multiple Answer

10 points

[Modify](#)

[Remove](#)

Question Which of the following are some design principles related to inheritance listed in the book?

Answer ✓ Every derivation should be an is-a relationship. The child should be a more specific version of the parent.
✓ Class hierarchies should be designed to capitalize on reuse
A parent's method should always be overridden
The use of interfaces should be avoided
✓ Even if there are no current uses/need for them, children should override the toString() and equals() methods to avoid potentially unforeseen uses
Avoid the use of abstract classes

[◀ Add Question Here](#)

Question 25

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following is not a standard name for the original class that is used to derive a new class?

Answer

parent class

superclass

base class.

✓ extended class

[Add Question Here](#)

Question 26

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which if the following is the correct class header for a class named Parrot that inherits from the class Bird and has the functions specified in the interfaces TalkingBird and PiratePet.

Answer

✓ public class Parrot extends Bird implements TalkingBird, PiratePet

public class Parrot extends TalkingBird, PiratePet implements Bird

public class Parrot extends Bird implements TalkingBird PiratePet

public class Parrot extend Bird implement TalkingBird, PiratePet

a class cannot inherit more than one interface, there is no valid class header

[Add Question Here](#)

Question 27

True/False

10 points

[Modify](#)

[Remove](#)

Question Even if a class contains the methods defined in an interface, it still needs to declare that it implements that interface in its class header.

Answer

✓ True

False

[Add Question Here](#)

Question 28

True/False

10 points

[Modify](#)

[Remove](#)

Question Programs that feed the diverse set of animals at a zoo would still be possible without polymorphism.

Answer

✓ True

False

[Add Question Here](#)

Question 29

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following methods is not part of the MouseListener interface

Answer

mousePressed()

mouseReleased()

mouseClicked()

mouseEntered()

✓ mouseDragged()

[◀ Add Question Here](#)

Question 30

True/False

10 points

[Modify](#)

[Remove](#)

Question Check boxes operate as a group, providing a set of mutually exclusive options.

Answer

True

✓ False

[◀ Add Question Here](#)

Question 31

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following components allows the user to enter typed input from the keyboard.

Answer

check boxes

radio buttons

sliders

combo boxes

✓ none of the above

[◀ Add Question Here](#)

Question 32

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question The (0,0) coordinate is located where on a panel?

Answer

✓ upper left

upper right

bottom left

bottom right

the center of the panel

there is no (0,0) coordinate

[◀ Add Question Here](#)

Question 33

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following methods is not included in the KeyListener interface?

Answer

keyPressed()

keyReleased()

keyTyped()

✓ keyEntered()

[◀ Add Question Here](#)

Question 34

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question What interface should a button click listener implement?

Answer ActionListener
 MouseListener
 ButtonListener
 actionPerformed()

[◀ Add Question Here](#)

Question 35

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following defines a screen element used to display information or allow the user to interact with a program in a certain way.

Answer GUI
 component
 event
 listener
 AWT

[◀ Add Question Here](#)

Question 36

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following components allows the user to select one of several options from a “drop down” menu?

Answer check boxes
 radio buttons
 sliders
 combo boxes
 None of these

[◀ Add Question Here](#)

Question 37

Multiple Choice

10 points

[Modify](#)

[Remove](#)

Question Which of the following is a fundamental idea of good GUI design?

Answer Know the user
 Prevent user errors
 Optimize user abilities.
 Be consistent.
 All of the above

[◀ Add Question Here](#)

Question 38

True/False

10 points

[Modify](#)

[Remove](#)

Question A GUI is composed of components, events that represent user actions, and listeners that respond to those events.

Answer True
 False

[◀ Add Question Here](#)

Question 39 

True/False

10 points

[Modify](#)

[Remove](#)

Question A frame is similar to a driver and a panel is similar to a class

Answer

True

False

[◀ Add Question Here](#)

Question 40 

True/False

10 points

[Modify](#)

[Remove](#)

Question There's nothing more you need or should learn about programming.

Answer

True

False

[◀ Add Question Here](#)

[OK](#)