Question **1**

Not yet answered

Marked out of 2.00

Flag question

Question text

Inheritance is also known as the

Select one:

is-a relationship.

knows-a relationship.

uses-a relationship.

has-a relationship.

Question **2**

Not yet answered

Marked out of 4.00

Flag question

Question text

Which of the following is a superclass/subclass (parent/child) relationship? Select all that apply.

Select one or more:

Computer/Television

Employee/Hourly Employee

Dog/Cat

Dog/Poodle

Vehicle/Car

Sailboat/Tugboat

Question **3**

Not yet answered

Marked out of 4.00

Flag question

Question text

Which of the following is true about inheritance? Select all that apply.

Select one or more:

**All** methods and constructors of a parent class are inherited by the child class.

A class can directly inherit from class Object.

A child class's instance variables are normally declared private to enforce good principles of software engineering.

Objects of the child class can be treated like objects of the parent class.

A parent class's instance variables are normally declared private to enforce good principles of software engineering.

All instance variables in a parent class can be directly accessed in a child class.

Question **4**

Not yet answered

Marked out of 2.00

Flag question

Question text

Which of the following keywords allows a subclass to access a superclass method even when the subclass has overridden the superclass method?

Select one:

base

this

public

protected

super

none of the above

Question **5**

Not yet answered

Marked out of 4.00

Flag question

Question text

Use the following partial classes for the next seven questions. The four classes below are in the same package (and directory).

public class Class1 {

public String a;   
private String b;   
protected String c;   
  
...

}   
  
public class Class2 extends Class1 {

protected String x;   
private String y;   
public String z;   
  
...

}   
  
public class Class3 extends Class2 {

private String q;   
protected String r;   
public String s;

...

}   
  
public class Class4 {

...

}

Which variables can be directly accessed from within Class1?

Select one or more:

a

b

c

x

y

z

q

r

s

Question **6**

Not yet answered

Marked out of 4.00

Flag question

Question text

Which variables can be directly accessed from within Class2?

Select one or more:

a

b

c

x

y

z

q

r

s

Question **7**

Not yet answered

Marked out of 4.00

Flag question

Question text

Which variables can be directly accessed from within Class3?

Select one or more:

a

b

c

x

y

z

q

r

s

Question **8**

Not yet answered

Marked out of 4.00

Flag question

Question text

Which variables can be directly accessed from within Class4?

Select one or more:

a

b

c

x

y

z

q

r

s

Question **9**

Not yet answered

Marked out of 2.00

Flag question

Question text

Which of the following is true about Class4?

Select one:

it has no parent class

it has one parent class

it has more than one parent class

you cannot tell anything about the parent of Class4 from the code shown

Question **10**

Not yet answered

Marked out of 4.00

Flag question

Question text

The two classes below are in a different package (and directory) than Class1, Class2, Class3, and Class4.

public class Class5 {

...

}   
  
public class Class6 extends Class3

...

}

Which variables can be directly accessed from within Class5?

Select one or more:

a

b

c

x

y

z

q

r

s

Question **11**

Not yet answered

Marked out of 4.00

Flag question

Question text

Which variables can be directly accessed from within Class6?

Select one or more:

a

b

c

x

y

z

q

r

s

Question **12**

Not yet answered

Marked out of 2.00

Flag question

Question text

In a child class, you can directly access private instance variables declared in the parent class.

Select one:

True

False

Question **13**

Not yet answered

Marked out of 2.00

Flag question

Question text

In a child class, you can directly invoke private methods declared in the parent class.

Select one:

True

False

Question **14**

Not yet answered

Marked out of 2.00

Flag question

Question text

Which of the following is the superclass constructor call syntax?

Select one:

super followed by dot

super followed by parentheses containing arguments

super followed by dot and the superclass constructor name

none of the above

Question **15**

Not yet answered

Marked out of 2.00

Flag question

Question text

In a child class constructor, if you do not explicitly call a parent constructor, then no parent constructor is ever called.

Select one:

True

False

Question **16**

Not yet answered

Marked out of 2.00

Flag question

Question text

When you overload a method, the type, order, and number of parameters must exactly match the original method.

Select one:

True

False

Question **17**

Not yet answered

Marked out of 2.00

Flag question

Question text

When you override a method, the type, order, and number of parameters must exactly match the original method.

Select one:

True

False

Question **18**

Not yet answered

Marked out of 2.00

Flag question

Question text

The equals implementation of class Object determines:

Select one:

whether two references have the same type.

whether two objects have the same instance variable values.

whether two objects have the same instance variables.

whether two references refer to the same object in memory.

Question **19**

Not yet answered

Marked out of 4.00

Flag question

Question text

Consider the classes below, declared in the same package.

class A {

int a;

public A() {

a = 7;

}

}

class B extends A {

int b;

public B() {

b = 8;

}

}

Which of the following is true? Select all that apply.

Select one or more:

After the constructor for class B executes, the variable a will have the value 7.

A reference of type B can be treated as a reference of type A.

a is an instance variable

A reference of type A can be treated as a reference of type B.

A reference of type B has two integer characteristics as its instance data.

b is an instance variable.

After the constructor for class B executes, b will have the value 8.

Question **20**

Not yet answered

Marked out of 6.00

Flag question

Question text

Consider a class called Dog that is described by a String name and int age. Write a complete equals method (including the method header) for this class. Two dogs are the same if they have the same name and age.

Question **21**

Not yet answered

Marked out of 18.00

Remove flag

Question text

In Homework 3, you wrote a class called Book. A Book is described by the title, author, publisher, and copyright year. The class contained a constructor, getters and setters, and a toString method.

Now, write a child class that inherits from Book. The class is called Dictionary. Include:

* instance data that describes the number of words in the dictionary
* a constructor that takes in all information needed to describe a dictionary
* a toString that lists the title, author, publisher, copyright year, and number of words
* appropriate getters and setters

Use good practices of object-oriented design and inheritance.