1. Select the statement that declares a number of type double and initializes it to 6 times 10 to the 5th power.

double number=6\*10^5;

double number=6e5; (\*)

double number=6(e5);

double number=6\*10e5;

2. Which of the following expressions will evaluate to true when x and y are boolean variables with opposite values?

I. (x || y) && !(x && y)

II. (x && !y) || (!x && y)

III. (x || y) && (!x ||!y)

I only

II only

I and III

II and III

I, II, and III (\*)

3. The six relational operators in Java are:

>,<,=,!,<=,>=

>,<,==,!=,<=,>= (\*)

>,<,=,!=,<=,>=

>,<,=,!=,=<,=>

4. Examine the following code: What is the value of variable x?

2 (\*)

2.5

6

14

5. What is the result when the following code segment is compiled and executed?

int x = 22, y = 10;

double p = Math.sqrt( ( x + y ) /2);

System.out.println(p);

Syntax error "sqrt(double) in java.lang.Math cannot be applied to int"

4.0 is displayed (\*)

2.2 is displayed

5.656854249492381 is displayed

ClassCastException

6. Which of the following is not a legal name for a variable?

2bad (\*)

zero

theLastValueButONe

year2000

7. What is the output of the following lines of code?

int j=6,k=8,m=2,result;

result=j-k%3\*m;

System.out.println(result);

6

0

-42

2 (\*)

8. When importing another package into a class you must import only the package classes that will be called and not the entire package. True or false?

True

False (\*)

9. Which of the two diagrams below illustrate the correct syntax for variables used in an if-else statement?

Example A (\*)

Example B

10. In an if-else construct the condition to be evaluated must end with a semi-colon. True or false?

True

False (\*)

Incorrect. Refer to Section 4 Lesson 2.

11. In the code fragment below, the syntax for the for loop's initialization is correct. True or false?

public class ForLoop {

public static void main (String args[])

{

for ((int 1=10) (i<20) (i++))<

{System.out.Println ("i: "+i); }

}

}

True

False (\*)

12. In Eclipse, when you run a Java Application, where may the results display?

Editor Window

Console View (\*)

Debug View

Task List

None of the above

13. A combination of views and editors are referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A workspace

A physical location

A perspective (\*)

All of the above

14. You can return to the Eclipse Welcome Page by choosing Welcome from what menu?

File

Edit

Help (\*)

Close

15. A workspace is:

The physical location onto which you will store and save your files.

The location where all projects are developed and modified.

The location where you can have one or more stored perspectives.

All of the above. (\*)

16. What should replace the comment "//your answer here" in the code below if the code is meant to take no action when i % 2 is 0 (in other words when i is even)?

for(int i = 0; i < 10; i++){

if(i%2 == 0)

//your answer here

else

k+=3;

}

continue; (\*)

break;

return;

k+=1;

17. One advantage to using a WHILE loop over a FOR loop is that a WHILE loop always has a counter. True or false?

True

False (\*)

18. Consider that a Scanner has been initialized such that:

Scanner in = new Scanner(System.in);

Which of the following lines of code reads in the user's input and sets it equal to a new String called input?

String input = in.next(); (\*)

String input = in.close();

String input = new String in.next();

String input = in.nextInt();

19. Switch statements work on all input types including, but not limited to, int, char, and String. True or false?

True

False (\*)

20. What is wrong with the following class declaration?

class Account{ ;

privateint number;

privateString name;;

Account;;

}

Classes cannot include strings.

Classes cannot include mixed data types.

The constructor method has no definition. (\*)

There is nothing wrong.

21. A class always has a constructor. True or false?

True (\*)

False

22. Which of the following creates an instance of the class below?

ThisClass t=new ThisClass();

ThisClass t;

ThisClass t=new ThisClass(3,4);

ThisClass t=new ThisClass(5); (\*)

Incorrect. Refer to Section 5 Lesson 2.

23. Which of the following creates a class named Student with one constructor, and 2 instance variables name and gpa?

public class Student { private String name; private float gpa; }

public class Student private String name; private float gpa; Student();

public class Student { private String name; private float gpa; Student(){ name="Jane Doe"; gpa=3.0;} } (\*)

public class Student { private String name; Student{ name="Jane Doe"; float gpa=3.0; }

Incorrect. Refer to Section 5 Lesson 2.

24. Which of the following creates an object from the Animal class listed below:

Animal cat=new Animal();

Animal cat=Animal(50,30);

Animal cat=new Animal(50,30); (\*)

Animal cat=new Animal(50);

25. What is true about the code below:

Car car1=new Car();

Car car2=new Car();

car2=car1;

The references car1 and car2 are pointing to two Car Objects in memory.

The reference car2 points to an exact copy of the Car Object that car1 references.

There are no more Car objects in memory.

There is a Car object that car1 referenced that is now slated for removal by the garbage collector. (\*)

There is a Car object that car2 referenced that is now slated for removal by the garbage collector.

Incorrect. Refer to Section 5 Lesson 2.

26. A constructor must have the same name as the class it is declared within. True or false?

True (\*)

False

Section 6

27. What is the output of the following segment of code?

int array[][] = {{1,2,3},{3,2,1}};

for(int i=0;i<2;i++)

for(int j=0;j<3;j++)

System.out.print(2\*array[1][1]);

444444 (\*)

123321

246642

222222

This code doesn't compile.

28. Which of the following statements adds 5 to every element of the one dimensional array prices and then prints it to the screen?

for(int i=0;i<prices.length;i++)

System.out.println(prices[i]+5);

System.out.println(prices[i]+5);

for(int i=1;i<prices.length;i++)

System.out.println(prices[i]+5);

for(int i=0;i<prices.length;i++)

System.out.println(prices[1]+5); (\*)

Incorrect. Refer to Section 6 Lesson 1.

29. Which of the following declares and initializes a two dimensional array that can hold 6 Object reference types?

String[] array=new String[6];

Object array=new Object[6];

Object[][] array=new Object[2][3]; (\*)

String[][] array=String[6];

30. Which of the following declares and initializes a one dimensional array that can hold 5 Object reference types?

String[] array=new String[5];

Object array=new Object[5]; (\*)

Object[] array=new Object[4];

String[] array=String[4];

Incorrect. Refer to Section 6 Lesson 1.

31. Which of the following creates a String reference named s and instantiates it?

String s=""; (\*)

s="s";

String s;

String s=new String("s"); (\*)

32. What will the following code segment output?

String s="\\\n\"\n\\\n\"";

System.out.println(s);

\" \"

""\

""

\

""

\

"

\

" (\*)

"

\

"

\

"

"

Incorrect. Refer to Section 6 Lesson 2.

33. The == operator can be used to compare two String objects. The result is always true if the two strings are have the exact same characters in each position of the String. True or false?

True

False (\*)

34. Given the code

String s1 = "abcdef";

String s2 = "abcdef";

String s3 = new String(s1);

Which of the following would equate to false?

s1 == s2

s1 = s2

s3 == s1 (\*)

s1.equals(s2)

s3.equals(s1)

35. A logic error occurs if an unintentional semicolon is placed at the end of a loop initiation because the interpreter reads this as the only line inside the loop, a line that does nothing. Everything that follows the semicolon is interpreted as code outside of the loop. True or false?

True

False (\*)

36. Which of the following correctly matches the symbol with its function?

== (two equal signs) compares values of primitive types such as int or char. (\*)

== (two equal signs) compares the values of non-primitive objects.

== (two equal signs) compares the memory location of non-primitive objects. (\*)

= (single equals sign) compares the value of primitive types such as int or char.

.equals() compares the value of non-primitive objects. (\*)

37. If an exception is thrown by a method, where can the catch for the exception be?

There does not need to be a catch in this situation.

The catch must be in the method that threw the exception.

The catch can be in the method that threw the exception or in any other method that called the method that threw the exception. (\*)

The catch must be immediately after the throw.

38. What does it mean to catch an exception?

It means you have fixed the error.

It means to throw it.

It means to handle it. (\*)

It means there was never an exception in your code.

Section 7

39. Forward thinking helps when creating linear recursive methods. True or false?

True

False (\*)

Incorrect. Refer to Section 7 Lesson 2.

40. Which case handles the last recursive call?

The base case (\*)

The primary case

The secondary case

The convergence case

The recursive case

Incorrect. Refer to Section 7 Lesson 2.

41. Static methods can't change any class variable values at run-time. True or false?

True False (\*)

Incorrect. Refer to Section 7 Lesson 2.

42. It is possible to return an object in a method. True or false?

True (\*) False

43. Which segment of code represents a correct way to define a variable argument method?

String easyArray(String... elems) {//code} (\*)

String easyArray(...String elems) {//code}

String... easyArray(String elems) {//code}

Integer easyArray... (int elems) {//code}

44. Choose the correct implementation of a public access modifier for the method divide.

divide(int a, int b, public) {return a/b;}

public divide(int a, int b) {return a/b;} (\*)

divide(int a, int b) {public return a/b;}

divide(public int a, public int b) {return a/b;}

45. What is true about the Object class?

It is the highest superclass. (\*)

It extends other classes.

Its methods can be overridden in subclasses. (\*)

Its methods can be overloaded in subclasses. (\*)

46. Would this code be correct if a Dog is a HousePet? Why or Why not?

HousePet Scooby = new Dog();

Yes, because it is an abstract class.

Yes, because polymorphism allows this since Dog is a subclass of HousePet. (\*)

No, because ref must be declared either a HousePet or a Dog, but not both.

Maybe. There is no way to tell without seeing the methods for Dog and the methods for HousePet.

47. If it is possible to inherit from an abstract class, what must you do to prevent a compiler error from occurring?

It is not possible to inherit from an abstract class.

Create all new methods and variables different from the parent class.

Override all abstract methods from the parent class. (\*)

Declare the child class as abstract. (\*)

48. Which of the following correctly describes an Is-A relationship?

A helpful term used to conceptualize the relationships among nodes or leaves in an inheritance hierarchy. (\*)

A programming philosophy that promotes simpler, more efficient coding by using exiting code for new applications.

It restricts access to a specified segment of code.

A programming philosophy that promotes protecting data and hiding implementation in order to preserve the integrity of data and methods.

49. An access modifier is a keyword that allows subclasses to access methods, data, and constructors from their parent class. True or false?

True (\*)

False

50. Which of the following demonstrates the correct way to create an applet Battlefield?

public class Battlefield extends Applet{...} (\*)

public Applet Battlefield{...}

public class Applet extends Battlefield{...}

public class Battlefield(Applet){...}