1. A set of instructions that a computer can follow, one by one, is called a(n) _____ .
2. The two kinds of computation are _____ .
3. The paradigm that uses step by step instructions to produce a desired result is _____ .
4. The paradigm that involves the coordination of activity among the many entities that make up the program and their interactions with the environment is _____ .
5. According to Stein, what are the questions involved in the design process for building software using the procedural paradigm?
6. According to Stein, what are the questions involved in the design process for building software using the object-oriented paradigm?
7. The advantages of pair programming include _____ .
8. Pitfalls of pair programming include _____ .
9. At any given time when pair programming, both partners should be looking at _____ .
10. When pair programming, the typing duties should be _____ .
11. When pair programming, the partner who is not typing should be thinking about _____ .
12. When pair programming, if one partner does not understand what the other partner is typing, the pair should _____ .
13. Pair programming is most effective when the partners' skills are _____ .
14. By maintaining successive versions of a project, two things that using version control allows you to do are _____ .
15. The effect of checking out a CVS project is _____ .
16. The four steps of "checking in" a CVS project are _____ .
17. Two effects of updating a CVS project are _____ .
18. The effect of adding contents to a CVS project is _____ .
19. The effect of committing a CVS project is _____ .
20. The effect of tagging a CVS project is _____ .
21. Compiling a project _____ .
22. Two kinds of errors are _____ .
23. UML Class Diagrams represent _____ .
24. The difference between a "fields-and-methods class diagram" and a "fields-and-methods class diagram with details" is that the latter includes _____ .
25. Two kinds of relationships between classes are _____ .
26. The relationship between the BasicAcrobat class to the Acrobat class is an example of a(n) _____ relationship.
27. The relationship between the AcrobatWithBuddy class through its buddy field to the Acrobat class is an example of a(n) _____ relationship.
28. The JavaDoc comments for constructors and methods should state _____ .
29. Three things that the JavaDoc comments for constructors and methods should not state are _____ .
30. Two things that the (data) type of a variable determines are _____.
31. In Java, int is an example of a(n) _____ data type.
32. In Java, String is an example of a(n) _____ data type.
33. In Java, Date is an example of a(n) _____ data type.
34. In Java, what is the type of the literal '\n'?
35. Give an example of a Java String literal.
36. Three things that every variable has are _____.

37. In Java, the memory location for a primitive-type variable is used to store _____.
38. In Java, the memory location for an object-type variable is used to store _____.
39. What is the output of the following Java code fragment?

```
Gizmo g1, g2;
g1 = new Gizmo();
g1.somefield = 1;
g2 = g1;
g2.somefield = 2;
System.out.println( “g1.somefield is still ” + g1.somefield );
```

40. In Java, when a primitive-type variable is declared but not assigned, its value is _____.
41. In Java, when an object-type variable is declared but not assigned, its value is _____.
42. Write a single Java statement that declares a variable called count that stores integer values and initializes the value to be zero.
43. Write a single Java statement that declares a variable called fido that stores information about a pet and uses the default constructor of the Pet class to initialize it.
44. The Java statement import javax.swing.JFrame allows access to _____.
45. The Java statement import javax.swing.*; allows access to _____ .
46. When a Java program is run, execution begins in _____.
47. The Java statement JOptionPane.showMessageDialog(null, “I love Java”); will _____.
48. The Java statement JOptionPane.showMessageDialog(null, “All\non\none\nline.”) will _____.
49. The Java statement JOptionPane.showMessageDialog(null, “I love Java”.substring(7, 11) will _____ .
50. Assuming that theWord is an initialized Java String variable, the statement JOptionPane.showMessageDialog(null, “There are “ + theWord.length() + “ characters in the word “ + theWord); will _____ .
51. The Java statement JOptionPane.showInputDialog(null, “This is a String literal”); will _____.
52. The Java statement String input = JOptionPane.showInputDialog(null, “What’s the input”); will _____.
53. The Java statement int input = Integer.parseInt(JOptionPane.showInputDialog(null, “What’s the input”); will _____.
54. After the execution of the following Java code, what will be the values of the variables x and y?

```
int a = 11;
int b = 3;
int x = a / b;
int y = a % b;
```

55. After the execution of the following Java code, will be the value of the variable y?

```
int a = 2;
int b = 4;
double x = 10.0;
double y = x * a / b;
```

56. What is the value of the Java expression Math.log(Math.E)?

57. Given the Java definitions int a = 1; and int b = 2; what is the value of the expression "This is a string" + a + b?

Computer portion

58. Write a Java application that displays the current date in this format: Sunday, November 10, 2002.
59. Write a Java application that displays the two messages "I can Design" and "And I Can Program" using one dialog but in two separate lines.
60. Write a Java application that asks the user for his or her birth date and replies with the day of the week on which he or she was born.
61. Write a Java application that asks the user for his or her full name in the format "first middle last" and replies with the name in the format "last, first middle-initial".
62. Write a Java application that asks the user for the radius of a circle and replies with the area.
63. Write a Java application that inputs temperature in degrees Celsius and prints out the temperature in degrees Fahrenheit. Use System.in for input and System.out for output.
64. Write an application that determines the number of days left in the current year, including the current one.
65. Write an application that accepts a purchase price and an amount tendered (both in pennies) and displays the change in dollars, quarters, dimes, nickels, and pennies. Display the output in the following format:

```
 Purchase Price: $ 34.80
Amount Tendered: $ 40.00

 Your change is: $ 5.20

                   5 one-dollar bill(s)
                   0 quarters
                   2 dime(s)
                   0 nickel(s)
                   0 penn(y/ies)

Thank you for your business.  Come back soon.
```