

CS 313

Exam 3 Name: _____

SSN: _____

question	points	points possible
1		3
2		3
3		3
4		3
5		3
6		3
7		4
8		4
9		4
10		4
11		4
12		4
13		6
14		6
15		6
16		6
17		6
18		15
19		7
20		6
TOTAL		100

True or False.

1. An array can store many different types of values. _____
2. A subclass object is also an object of that subclass's superclass. _____
3. All methods in an abstract class must be declared abstract. _____
4. When String objects are compared with ==, the result is true if the Strings contain the same values. _____
5. A TreeSet can contain duplicates. _____
6. An ArrayList can contain duplicates. _____

Write a single Java statement to accomplish each of the following.

7. Append string s2 to string s1.
8. Determine the length of the string in s1.
9. Compare the string in s1 to the string in s2 for equality of contents.

Fill in the blank.

10. An object of a subclass can be treated as an object of its _____ class.
11. If a class contains one or more unimplemented methods, it is a _____ class.

12. A subclass may call any non-private superclass method by prepending _____ to the method call.

Short Answer.

13. Discuss why casting a superclass reference to a subclass reference is potentially dangerous.

14. What feature of Java enables multiple inheritance? Explain.

15. If no exceptions are thrown in a try block, where does control proceed to when the try block completes execution? Consider the cases when there is a finally clause, and when there is no finally clause.

16. What happens if an exception occurs and several exception handlers match the type of the thrown object?

17. Give the method signature (i.e., the type and order of arguments, the return type) for each of these ListIterator methods, and explain how each operates.

a) previous

b) get

c) set

Programming.

18. Write a program that takes a positive number of words on the command line, and prints the number of distinct words. Treat uppercase and lowercase letters the same.

19. Write a try/catch block which throws an Exception if the value of variable X is less than 0. The exception should be an instance of the Exception class, and when it is caught, the message returned by getMessage() should be "ERROR: Negative value in X coordinate".

20. Write several lines of Java code so that the code reads two integers from the keyboard (one at a time) and prints out their sum.