**44-542 Object Oriented Programming Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Exam 02 (100 points) Part 1 KEY** *please print*

**Multiple choice (50 points – 2 points each).**  Write the letter corresponding to the BEST correct answer.

***Select only ONE answer for each question. If you select more than one answer, the entire question will be counted as wrong.***

1. An object’s type may be that of an interface.
   1. true
   2. false
2. If a method has multiple parameters, then multiple **@param** tags must be used.
   1. true
   2. false
3. When we extend the state or behavior of a class, the new class – the one that extends the state or behavior of the original class – is called the
   1. inheritor
   2. superclass
   3. subclass
   4. child class
4. Generally, recursive methods are more efficient than iterative solutions.
   1. true
   2. false
5. The ability to override methods coupled with the run-time determination of which method to invoke is referred to as \_\_\_\_\_.
   1. inheritance
   2. polymorphic substitution
   3. late-binding polymorphism
   4. extension
6. Which of the following is/are true about an abstract class?
   1. it cannot be instantiated
   2. it cannot have subclasses
   3. it has at least one abstract method
   4. all of the above are true
   5. only a) and c) are true
7. Classes \_\_\_\_\_ classes, classes \_\_\_\_\_ interfaces, interfaces \_\_\_\_\_ interfaces
   1. extend, implement, extend
   2. extend, implement, implement
   3. extend, extend, implement
   4. implement, implement, extend
8. The \_\_\_\_\_ interface can be used to extend the usage of the enhanced **for** loop.
   1. **Comparable**
   2. **Iterable**
   3. **Runnable**
   4. **Serializabl**e
9. The is-a relationship between superclass and subclass allows us to use a subclass object anywhere a superclass object would be allowed. This is referred to as \_\_\_\_\_.
   1. inheritance
   2. polymorphic substitution
   3. late-binding polymorphism
   4. extension
10. Which of the following is/are true about **try-catch** blocks?
    1. a **try** block is followed by only one **catch** clause
    2. a single method may contain multiple **try** blocks
    3. a **try** block cannot be nested in another **try** block
    4. all of the above are true
11. The **sort** method that we used in class to sort array lists is in the \_\_\_\_\_ class.
    1. **Collection**
    2. **Collections**
    3. **ArrayList**
    4. **List**
12. Java \_\_\_\_\_ that the natural ordering for a class be consistent with **equals**; that is, for non-null instances **e1** and **e2**, **e1.compareTo(e2) == 0** should have the same boolean value as **e1.equals(e2)**.
    1. requires
    2. recommends
13. Which of the following is/are true about an abstract method?
    1. is declared with the keyword abstract
    2. has no method body – that is, it is not implemented in the superclass
    3. must be overridden by all subclasses, except for subclasses also declared as abstract
    4. all of the above are true
    5. only a) and c) are true
14. A method that invokes itself is said to be \_\_\_\_\_.
    1. self-invoking
    2. identifiable
    3. recursive
    4. self-looping
15. When a method is called, information about the method is stored in a(n)\_\_\_\_\_.
    1. method record
    2. stack record
    3. activation record
    4. active record
16. Which of the following is/are true about interfaces?
    1. all methods are abstract
    2. all methods are private
    3. they have no instance variables
    4. all of the above are true
    5. only a) and c) are true
17. Subclasses can access the private instance variables of the superclass.
    1. true
    2. false
18. A Java application can accept arguments from the command line.
    1. true
    2. false
19. The collection of values of the instance variables of an object is called its \_\_\_\_.
    1. inheritor
    2. extension
    3. behavior
    4. state
20. The **Comparable** interface has only one method, named \_\_\_\_\_; the **Comparator** interface has only one method, named \_\_\_\_\_.
    1. **comparison**, **orderBy**
    2. **orderBy**, **comparison**
    3. **compare**, **compareTo**
    4. **compareTo**, **compare**
21. A reference variable’s type may be that of an interface.
    1. true
    2. false
22. When infinite recursion occurs, a \_\_\_\_ will be thrown.
    1. **StackOverflowError**
    2. **InfiniteRecursionError**
    3. **RecursionException**
    4. **StackException**
23. Method **main** is always declared as **public static void**. The modifier \_\_\_\_ means that the JVM does not have to create an instance of the class in order to start the program.
    1. **public**
    2. **static**
    3. **void**
24. In order to do black-box testing, you must know how to program.
    1. true
    2. false
25. Every Java class automatically extends **Object** and inherits methods \_\_\_\_ and \_\_\_\_.
    1. **iterator**, **comparable**
    2. **serializable**, **iterator**
    3. **compareTo**, **equals**
    4. **toString**, **equals**