Name (last, first): _____ Group: _____ Date: _____ ID: A

OOP Short Test 4

Multiple Choice

Identify the choice that best completes the statement or answers the question.

____ 1. Collections that assure element uniqueness implement

a. `ArrayList`
b. `Vector`
c. `List`
d. `Set`

____ 2. Java applets begin execution with a series of three method calls:

a. init , start , restart
b. init , start , repaint
c. init , start , stop
d. init , start , paint

Multiple Response

Identify one or more choices that best complete the statement or answer the question.

____ 3. Mark all what applies to *Collections*:

a. are strongly typed
b. may contain primitive values
c. the contained values descend from class *Object*
d. are weakly typed

____ 4. A bound can be placed on a wildcard specifying that the type used must be an ancestor type or descendent type of some class or interface. Mark all what applies.

a. <? extends *ClassType*> specifies that the argument plugged in be an object of any descendent class of *ClassType*
b. <* extends *ClassType*> specifies that the argument plugged in be an object of any descendent class of *ClassType*
c. <? implements *Interface*> specifies that the argument plugged in be an object of any descendent interface of *Interface*
d. <? super *ClassType*> specifies that the argument plugged in be an object of any ancestor class of *ClassType*

____ 5. All collections can:

a. add / remove elements
b. report their size
c. convert data into an array of Classes
d. report their Objects

____ 6. An *iterator* is (mark all what applies): is that is

a. a class
b. used with a collection to provide sequential access to the collection elements
c. an object
d. used with a collection to provide direct access to the collection elements

____ 7. The data elements encapsulated by a buffer can be stored in one of several different ways:

a. in an array provided by the *init()* method
b. in native memory space
c. all answers are valid
d. in a private array created by the buffer object

____ 8. Concerning Java threads (mark all what applies)

a. Threads are executed by the local operating system
b. Threads have a guaranteed order of exeuction
c. Threads decide what they do when they are interrupted
d. thread scheduler runs each thread for a short amount of time

Completion
Complete each statement.

9. The method _____ is invoked for an applet each time a browser's user leaves an HTML page on which the applet resides.

10. The _____ or a browser can be used to execute a Java applet.

11. Iterators abstract the ability to read and write the contents of collection in _____, and isolate that ability from the underlying collection _____.

12. Objects in the *Map* framework can implement _____, so can be used to construct _____ classes.

13. Every applet should extend class _____.

Short Answer

14. Java can create threads in two ways:

_____
_____
_____
_____
_____

OOP Short Test 4
Answer Section

MULTIPLE CHOICE

1. ANS: D PTS: 1
2. ANS: D PTS: 1

MULTIPLE RESPONSE

3. ANS: C, D PTS: 1
4. ANS: A, D PTS: 1
5. ANS: A, B PTS: 1
6. ANS: B, C PTS: 1
7. ANS: B, D PTS: 1
8. ANS: C, D PTS: 1

COMPLETION

9. ANS:
public void stop()
This method is called by the applet container when the user leaves the applet's web page by browsing to another web page. Since it's possible that the user might return to the web page containing the applet, method stop performs tasks that might be required to suspend the applet's execution, so that the applet does not use computer processing time when it's not displayed on the screen. Typical actions performed here would stop the execution of animations and threads.

   PTS: 1
10. ANS: appletviewer

    PTS: 1
11. ANS:
loops
implementation

    PTS: 1
12. ANS:
mathematical functions and relations
database

    PTS: 1
13. ANS: **`JApplet`** (or **`Applet`**)

    PTS: 1

SHORT ANSWER

14. ANS:
    - A class extends the *Thread* class and overrides it's run() method.
    - A class implements the *Runnable* interface, which has one method: run().
        - The class passes a reference to itself when it creates a thread.
        - The thread then calls back to the run() method in the class.

    PTS: 1

Name (last, first): _____ Group: _____ Date: _____ ID: B

OOP Short Test 4

Multiple Response
Identify one or more choices that best complete the statement or answer the question.

____ 1. A bound can be placed on a wildcard specifying that the type used must be an ancestor type or descendent type of some class or interface. Mark all what applies.
   a. <? super *ClassType*> specifies that the argument plugged in be an object of any ancestor class of *ClassType*
   b. <? implements *Interface*> specifies that the argument plugged in be an object of any descendent interface of *Interface*
   c. <? extends *ClassType*> specifies that the argument plugged in be an object of any descendent class of *ClassType*
   d. <* extends *ClassType*> specifies that the argument plugged in be an object of any descendent class of *ClassType*

____ 2. All collections can:
   a. report their Objects
   b. report their size
   c. add / remove elements
   d. convert data into an array of Classes

____ 3. An *iterator* is (mark all what applies): is that is
   a. used with a collection to provide sequential access to the collection elements
   b. used with a collection to provide direct access to the collection elements
   c. a class
   d. an object

____ 4. Concerning Java threads (mark all what applies)
   a. Threads decide what they do when they are interrupted
   b. thread scheduler runs each thread for a short amount of time
   c. Threads are executed by the local operating system
   d. Threads have a guaranteed order of exeuction

____ 5. Mark all what applies to *Collections*:
   a. the contained values descend from class *Object*
   b. may contain primitive values
   c. are strongly typed
   d. are weakly typed

____ 6. The data elements encapsulated by a buffer can be stored in one of several different ways:
   a. in native memory space
   b. all answers are valid
   c. in a private array created by the buffer object
   d. in an array provided by the *init()* method

Completion
Complete each statement.

7. The method _____ is invoked for an applet each time a browser's user leaves an HTML page on which the applet resides.

8. Iterators abstract the ability to read and write the contents of collection in _____, and isolate that ability from the underlying collection _____.

9. Objects in the *Map* framework can implement _____, so can be used to construct _____ classes.

10. Every applet should extend class _____.

11. The _____ or a browser can be used to execute a Java applet.

Short Answer

12. Java can create threads in two ways:

_____

_____

_____

_____

_____

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 13. Java applets begin execution with a series of three method calls:
a. init , start , repaint
b. init , start , stop
c. init , start , restart
d. init , start , paint

____ 14. Collections that assure element uniqueness implement
a. **`Vector`**
b. **`ArrayList`**
c. **`List`**
d. **`Set`**

OOP Short Test 4
Answer Section

MULTIPLE RESPONSE

1. ANS: A, C PTS: 1
2. ANS: B, C PTS: 1
3. ANS: A, D PTS: 1
4. ANS: A, B PTS: 1
5. ANS: A, D PTS: 1
6. ANS: A, C PTS: 1

COMPLETION

7. ANS:
   public void stop()
   This method is called by the applet container when the user leaves the applet's web page by browsing to another web page. Since it's possible that the user might return to the web page containing the applet, method stop performs tasks that might be required to suspend the applet's execution, so that the applet does not use computer processing time when it's not displayed on the screen. Typical actions performed here would stop the execution of animations and threads.

   PTS: 1
8. ANS:
   loops
   implementation

   PTS: 1
9. ANS:
   mathematical functions and relations
   database

   PTS: 1
10. ANS: **`JApplet`** (or **`Applet`**)

    PTS: 1
11. ANS: appletviewer

    PTS: 1

SHORT ANSWER

12. ANS:
    - A class extends the *Thread* class and overrides it's run() method.
    - A class implements the *Runnable* interface, which has one method: run().
      - The class passes a reference to itself when it creates a thread.
      - The thread then calls back to the run() method in the class.

    PTS: 1

MULTIPLE CHOICE

13. ANS: D PTS: 1
14. ANS: D PTS: 1