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J2SE – Core Java (60 Minutes)

1. Native methods are also called as_____
   1. class methods
   2. foreign methods
   3. instance methods
   4. abstract methods

2. What will be the output of the following code
   ```
   public class Myclass
   {
     public static void main(String args[]){
     RuntimeException rte=null;
     throw rte;
     }
   }
   ```
   1. Compile time error, because main method does not declare that it throws RuntimeException in its declaration.
   2. Compile time error, because it cannot throw rte.
   3. The program will compile without an error.
   4. Code will compile without an error, and will throw java.lang. RuntimeException when run.

3. What will happen when you attempt to compile or run this code?
   ```
   class Base
   {
       public final void amethod ()
       {
           system.out.println ("amethod");
       }
   }
   public class Fin extends Base
   {
       public static void main (String argv [] )
       {
           Base b = new Base() ;
           b.amethod () ;
       }
   }
   ```
   1. Compile time error indicating that a class with any final methods must be declared final itself
   2. Compile time error indicating that you inherit from a class with final methods.
   3. Run time error indicating that Base is not defined as final.
   4. Success in compilation and output of "amethod" at run time

4. Which of these classes do not generate item event?
   1. Checkbox
   2. CheckboxMenuItem
   3. MenuItem
   4. List

5. Which of the following facilitate implementing listener interfaces?
   1. Event Listener
   2. Event Adapter
   3. Event Handler
   4. Event Delegates

6. After execution of the following code fragment, what are the values of the variable x, a and b?
   ```
   int x, a =  6, b = 7;
   x = a++  + b++;
   ```
   1. x=15,a=7,b=8
   2. x=15,a=6,b=7
   3. x=13,a=7,b=8
   4. x=13,a=6,b=7

7. Which of the following expression result in a positive value of x?
   1. int x = -1; x = x >>> 5;
   2. int x = -1; x = x >>> 32;
   3. byte x = -1; x = x >>> 5;
   4. int x = -1; x = x >> 5;

8. Which of the following statements is true?
   1. Transient methods may not be overridden.
   2. Transient methods must be overridden.
   3. Transient classes may not be serialized.
   4. Transient variables are not serialized.

9. Which of the following statement is true?
   1. An Inner class may be declared private.
   2. An Inner class may be declared static.
   3. Construction of an inner class may require an instance of the outer class.
   4. All of the above

10. Which would be most suitable for storing data elements that must not appear in the store more than once, if searching is not a priority?
    1. Collection.
    2. List.
    3. Set
    4. Map

11. What will happen when you attempt to compile or run this code?
    ```
    public class Mod
    {
        public static void main (String argv [] )
        {}
        public static native void amethod () ;
    }
    ```
    1. Error at compilation: native method cannot be static.
    2. Error at compilation native method must return a value.
    3. Compilation but error at run time unless you have made code containing native amethod available.
    4. Compilation and execution without error.

12. What will happen when you attempt to compile or run this code?
    ```
    private class Base {}
    public class Vis
    {
        transient int iVal;
        public static void main (String elephant [] )
        {}
    }
    ```
    1. Compile time error: Base cannot be private.
    2. Compile time error indicating that an integer cannot be transient.
    3. Compile time error transient not a data type.
    4. Compile time error malformed main method.

13. What will happen when you attempt to compile or run these two files in the same directory?

```
// File P1.java
package MyPackage ;
class P1
{
    void afancymethod ()
    {
        system.out.println ("What a fancy
method");
    }
  // File P2.java
  public class P2 extends P1
  {
      afancymethod () ;
  }
}
```

  1. Both compile and P2 outputs " What a fancy method" when run.
  2. Neither will compile.
  3. Both compile but P2 has an error at run time.
  4. P1 compile cleanly but P2 has an error at compile time.

14. You want to find out the vakue of the last element of an array. You write the following code. What will happen when you attempt to compile or run it?

```
Public class MyAr
{
    Public static void main (String argv[])
    {
        int [] I = new int [5] ;
        System.out.println(I [5]);
    }
}
```

  1. An error at compile time.
  2. An error at run time.
  3. The value 0 will be output.
  4. The string "null" will be the output

15. How do you indicate where a component will be positioned using FlowLayout ?
  1. North, South, West, East.
  2. Assign a row /column grid reference.
  3. Pass a X/Y percentage parameter to the add method.
  4. Do nothing. The FlowLayout will position the component.

16. How do you change the current layout manager for a container?
  1. Use setLayout method.
  2. Once created you cannot change the current layout manager of a component.
  3. Use the setLayoutManager method.
  4. Use the updateLayout method.

17. Which of the following fields of the GridBagConstraints class?
  1. ipadx
  2. fill
  3. insets
  4. gridwidth

18. What most closely matches the appearance when this code runs?

```
import java.awt.* ;
public class ComLay extends Frame
{
    public static void main (String argv [] )
    {
        CompLay cl = new CompLay () ;
    }
    CompLay ()
    {
        Panel p = new Panel () ;
        p.setBackground (Color.pink) ;
        p.add (new Button ("One")) ;
        p.add (new Button ("Two")) ;
        p.add (new Button ("Three")) ;
        add ("South",p) ;
        setLayout (new FlowLayout () ) ;
        setSize (300, 300) ;
        setVisible(true) ;
    }
}
```

  1. The buttons will run from left to right along the bottom of the frame.
  2. The buttons will run from left to right along the top of the frame.
  3. The buttons will not be displayed.
  4. Only button three will show occupying all of the frame.

19. Which statements are correct about the *anchor* field?
  1. It is a field of the GridBagLayout manager for controlling component placement
  2. It is a field of the GrigBagConstraints class for controlling component placement
  3. A valid setting for the anchor field is GridBagconstraints.NORTH.
  4. The anchor field controls the height of the components added to a container.

20. The size of the Swing component is defined in which of the following units?
  1. Inches
  2. Centimeters
  3. Pixels
  4. Microns

21. The flow layout manager arranges components in which of the following?
  1. Columns
  2. Rows
  3. Cells
  4. North, South, East and West

22. Which of the following protocols does Java use for connection-oriented networking?
  1. UDP
  2. ICMP.
  3. TCP.
  4. RPC

23. What is the goal of java's serialization facility?
  1. To provide data protection from concurrent access.
  2. To provide data persistence
  3. To provide remote access to data
  4. To improve performance.

24. Which two of the following interfaces are defined in the java.beans package?
  A. PropertyChangeListener.
  B. EventListener.
  C. ActionListener.
  D. VetoableChangeListener.
  1. A, B
  2. B, C
  3. B, D
  4. A, D

25. Which of the following is the correct syntax for suggesting the JVM performs garbage collection.
    1. System.free ();
    2. System.setGarbageCollection () ;
    3. System.out.get () ;
    4. System.go ();
26. What is the correct ordering for the import, class and package declaration when found in a single file?
    1. package, import, class
    2. class, import, package
    3. import, package, class
    4. package, class, import
27. What tags are mandatory when creating HTML to display an applet
    1. name, height, width
    2. code, name
    3. codebase, height, width
    4. code, height, width
28. What is the permanent effect on the file system of writing data to a new FileWriter("report"), given the file report already exists?
    1. The data is appended to the file
    2. The file is replaced with a new file
    3. An exception is raised as the file already exists
    4. The data is written to random locations within the file
29. What is the effect of adding the sixth element to a vector created in the following manner: new Vector(5, 10);
    1. An IndexOutOfBounds exception is raised.
    2. The vector grows in size to a capacity of 10 elements
    3. The vector grows in size to a capacity of 15 elements
    4. Nothing, the vector will have grown when the fifth element was added
30. Default value of reference type is
    1. 0
    2. /0
    3. zero
    4. null
31. Which of the following is not primitive data type?
    1. Integer
    2. Boolean
    3. String
    4. Floating
32. String class is
    1. final
    2. abstract
    3. static
    4. transient
33. What will be the output of the following code?
    public class VerySmart

    {

     public static void main(String[] args)

     {

         String message;
         System.out.println("message length is : " +
         message.length());

          }

    }
    1. /0
    2. 0
    3. compile time error
    4. run time error

34. Whose precedence is highest
    1. &
    2. &&
    3. &=
    4. instanceof
35. Swing text field is encapsulated by_____, which extends_____
    1. JComboBox, ComboBox,
    2. JTextField, JComponent
    3. JTextComponent, JComponent
    4. JTextField, JComponent
36. It is an error to catch the same type of exception in two different catch blocks associated with a particular try lock.
    1. True
    2. False
37. The programmer must explicitly create the System.in and System.out objects.
    1. True
    2. False
38. What is the effect of issuing a wait() method on an object
    1. If a notify() method has already been sent to that object then it has no effect
    2. The object issuing the call to wait() will halt until another object sends a notify() or notifyAll() method
    3. An exception will be raised
    4. The object issuing the call to wait() will be automatically synchronized with any other objects using the receiving object.
39. Using a FlowLayout manager, which is the correct way to add elements to a container:
    1. add(component);
    2. add("Center", component);
    3. add(x, y, component);
    4. set(component);
40. To delete a file, we can use an instance of class File.
    1. True
    2. False
41. A panel cannot be added to another panel.
    1. True
    2. False
42. Frames and applets cannot be used together in the same program.
    1. True
    2. False
43. A final class may not have any abstract methods.
    1. True
    2. False
44. static member scope is _____
    1. They are created when the class is loaded at runtime.
    2. They are created when main get called.
    3. They are created when class object get created.
    4. They are created when class get modified.
45. Wrapper class is part of package_____
    1. java.lang
    2. java.util
    3. java.io
    4. java.awt

46. How many lines of output will be produced?
```
public class Test {
public static void main(String [] args) {
int [] [] [] x = new int [3] [] [];
int i,j;
x[0] = new int[4][];
x[1] = new int[2][];
x[2] = new int[5][];
for (i=0; i<x.length; i++)
for (j=0; j<x[i].length; j++) {
x[i][j] = new int [i + j + 1];
System.out.println("size = " + x[i][j].length);
}
}
}
```
   1. 7
   2. 9
   3. 11
   4. 13

47. What is wrong with the following code?
```
abstract class MyClass{
transient int var1;
synchronized int var2;
final void Myclass() {}
static void f()  {}
}
```
   1. Myclass can not be declared as abstract.
   2. Var1 can not be declared as transient.
   3. Var2 can not be declared as synchronized.
   4. Nothing is wrong in the given line of code.

48. Which of these classes can have instances that can be added to a Menu Instance?
   1. MenuItem
   2. Menu
   3. Checkbox
   4. CheckboxMenuItem
   1. 1,2,3
   2. 2,3,4
   3. 1,3,4
   4. 1,2,4

49. Which of the following are valid return types, for listener methods:
   1. boolean
   2. the type of event handled
   3. void
   4. Component

50. Assuming we have a class which implements the ActionListener interface, which method should be used to register this with a Button?
   1. addListener(*);
   2. addActionListener(*);
   3. addButtonListener(*);
   4. setListener(*);