Date: August 01, 2010

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

Core Java (25 Minutes)

1. What is the result of this program?

```
class Over
{
  public static void main(String[] args){
      Under u = new Under();
      u.test();
  }
  int test(){
      System.out.println("over");
      return 1;
  }
}
class Under extends Over{
  short test(){
      super.test();
      System.out.println("Under");
      return 1;
  }
}
```

1. This code compiles, runs and displays over followed by Under
2. This code compiles, runs and displays Under followed by over
3. This code does not compile
4. Code will compile but gives runtime error

Correct Answer: 3

2. Consider the following code in file Sample.java

```
public class Sample implements IInt
{
  public static void main(String[] args){
      Sample s = new Sample();  //1
      int j = s.thevalue;       //2
      int k = IInt.thevalue;    //3
      int l = thevalue;         //4
  }
}
interface IInt
{
  int thevalue = 0;
}
```

What will happen when the above code is compiled and run?

1. It will give an error at compile time at line //1
2. It will give an error at compile time at line //2
3. It will give an error at compile time at line //3
4. It will compile and run without any problem.

Correct Answer: 4

3. What will be the result of attempting to compile and run the following program?

```
public class TestClass
{
  public static void main(String args[ ] ){
      String s = "hello";
      StringBuffer sb = new StringBuffer("hello");
      sb.reverse();
     s.reverse();
     if( s = = sb.toString() ) System.out.println("Equal");
     else
     System.out.println("Not Equal");
  }
}
```

1. It will print 'Equal'
2. It will print 'Not Equal'
3. Compilation error as there is no reverse () method in class String
4. Runtime error

Correct Answer: 3

4. What will be the output of the following code?

```
public class exception_demo
{
  public static void main(String str[]){
    int i=1, j=1;
    try
     {
        i++;
        j--;
        if(i/j > 1)
        i++;
     }
    catch(Exception e)
     { System.out.println("Exception"); }
    catch(ArithmeticException e)
     { System.out.println("arithmetic exception"); }
    catch(ArrayIndexOutOfBoundsException e)
     { System.out.println("Array index exception"); }
    finally
     {   System.out.println("finally"); }
    System.out.println("after exceptions ");
  }
}
```

1. Give compilation error
2. arithmetic exception
3. arithmetic exception finally
4. None of the above

Correct Answer: 1

5. Suppose you create a class Cylinder to be a subclass of Circle. Analyze the following code:

```
class Cylinder extends Circle{
  double length;
  Cylinder(double radius){
      Circle(radius);
  }
}
```

1. The program compiles fine, but you cannot create an instance of Cylinder because the constructor does not specify the length of the cylinder.
2. The program has a syntax error because you attempted to invoke the Circle class's constructor illegally.
3. The program compiles fine, but it has a runtime error because of invoking the Circle class's constructor illegally.
4. None of the above

Correct Answer: 2

6. Analyze the following code:

```
public class Test{
  int x;
  static {x++;}
}
```

1. The program cannot be compiled, because the statement x++ must be placed inside a method or a constructor.
2. When you construct an instance of Test, the value of x becomes 0.
3. The program cannot be compiled, because x is non-static, but is used in a static initialization block.
4. When you construct an instance of Test, the value of x becomes 1.

Correct Answer: 3

7. If you will run following code what will be the result?

```
public class RTExcept {
    public static void throwit () {
        System.out.print("throw it ");
        throw new RuntimeException();
    }
    public static void main(String [] args) {
        try {
                System.out.print("hello ");
                throwit();
            }
        catch (Exception re ) {
            System.out.print("caught ");
        }
        finally {
            System.out.print("finally ");
        }
            System.out.println("after ");
        }
        }
```

1. hello throw it caught finally after
2. hello throw it RuntimeException caught after
3. Compilation fails
4. hello throw it caught finally after RuntimeException

Correct Answer: 1

8. Which collection class allows you to access its elements by associating a key with an element's value, and provides synchronization?
   1. java.util.SortedMap
   2. java.util.TreeMap
   3. java.util.TreeSet
   4. java.util.HashTable

Correct Answer: 4

9. Which one is true about interface and abstract class?
   1. Abstract class can have only instance method and default behavior. Interface can declare constants and can have instance method but cannot implements default behavior.
   2. An interface has all public members and abstract class has private, protected etc members
   3. Both 1 & 2
   4. None of the above

Correct Answer: 3

10. Objects are passed by value or reference?
    1. By value
    2. By reference
    3. It depends upon how you specify
    4. None of the above

Correct Answer: 1

11. If you write System.exit(0) at the end of try block, will the finally block still execute?
    1. Yes
    2. No
    3. It depends upon return statement
    4. Can't say

Correct Answer: 2

12. Which is a keyword?
    1. string
    2. unsigned
    3. Float
    4. this

Correct Answer: 4

13. Which is valid declaration of a String?
    1. String s2 = 'null';
    2. String s3 = (String) 'abc';
    3. String s1 = null;
    4. String s4 = (String) '\ufeed';

Correct Answer: 3

14. Which is valid declaration within an interface?
    1. public static short stop = 23
    2. protected short stop = 23
    3. transient short stop = 23;
    4. final void madness(short stop);

Correct Answer: 1

15.
```
class  Equals{
    public static void main(String[] args){
        int x= 100;
        double y = 100.1;
        Boolean b = (x=y);
        System.out.println(b);
    }
}
```

1. true
2. false
3. Compilation fails
4. An exception is thrown at runtime

Correct Answer: 3

16.
```
Line 1. long test(int x, float y)
Line 2. {
Line 3.
```

Line 4. }
The above program will not compile by inserting which of the following line?

1. return x;
2. return (long) x/y
3. return(int) 3.14d
4. return (long)y;

Correct Answer: 2

17. Which statement is true about wrapper or String classes?
    1. if x and y refer to instances of different wrapper classes, then the fragment x.equals(y) will cause a compiler failure.
    2. if x and y refer to instances of different wrapper classes, then x==y can sometimes be true.
    3. If x and y are String references and if x.equals(y) is true, then x==y is true.
    4. If x,y and z refer to instances of wrapper classes and x.equals(y) is true, and y.equals(z) is true, then z.equals(x) will always be true.

Correct Answer: 4

18. String x = "xyz";
    x.toUpperCase();
    String y = x.replace('Y','y');
    y = y + "abc" ;
    System.out.println(y); What is the result?
    1. abcXyz
    2. abcxyz
    3. xyzabc
    4. compilation fails

Correct Answer: 3

19. String a = "newspaper";
    a = a + b;
    char b = a.charAt(1);
    a = a + b;
    System.out.println(a); What is the result?
    1. apa
    2. app
    3. apea
    4. apep

Correct Answer: 2

20. public class SqrtExample{
        public static void main(String [] args){
            double value = -9.0;
            System.out.println(Math.sqrt(value));
        }
    }
    1. 3.0
    2. –3.0
    3. NaN
    4. Compilation fails

Correct Answer: 3

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J2SE – Core Java (60 Minutes)

1. Which of the following statement is true?
   1. An object will be garbage collected when it becomes unreachable
   2. An object will be garbage collected if it has null assigned to it
   3. The finalize method will be run before an object is garbage collected
   4. Garbage collection assures that a program will never run out of memory
2. The command 'codebase' is used in applets _____.
   1. When the applet class file is not in the same directory
   2. When the applet class file is in the same directory
   3. When we need to get the parameters of the applet
   4. None of the above
3. Given the following code, which of the following option if inserted after the comment //here will allow the code to compile without error?

```
interface Remote{
        public void test();
}
public class Moodle{
        public static void main(String argv[]){
        Moodle m = new Moodle();
        }
        public void go(){
        //here
        }
}
```

   1. Remote r = new Remote(){ public void test(){} };
   2. Remote remote = new Remote();
   3. test();
   4. this.main();
4. Which of the following initializes boolean primitive?
   1. Boolean flag=true;
   2. boolean flag=true;
   3. boolean flag=TRUE;
   4. Boolean flag=TRUE;
5. Which of the following is not correct?
   1. int a [][] = new int [20][20];
   2. int [] a [] = new int [20][];
   3. int [][] a = new int [10][];
   4. int [][] a = new int [][10];
6. instanceof operator can be used with _____.
   1. Arrays
   2. Final Class
   3. Classes
   4. All of the above
7. The switch() construct is used to make a choice based upon _____.
   1. char value
   2. An int value
   3. A String value
   4. None of the above
8.

```
public class CDAC{
  public static void main(String a[]){
  String s1 = "Sun";
  System.out.println(s1.substring(5));
  }
```

   What is output?
   1. -1
   2. 0
   3. StringIndexOutOfBoundsException
   4. ArrayIndexOutOfBoundsException
9. Which of the following modifiers can be applied to a constructor?
   1. Private
   2. abstract
   3. volatile
   4. All of the above
10. Which of the following class is thread safe?
    1. ArrayList
    2. HashMap
    3. Hashtable
    4. HashSet
11.

```
class DAC {
  public static void main(String[] s) {
  String s1 = "A", s2 = " B ", s3 = "C";
  s2.trim(); s3.concat("D");
  System.out.print(s1 + s2 + s3);
  }
}
```

    What is the result of the program?
    1. Prints: ABC
    2. Prints: A B C
    3. Prints: ABCD
    4. Prints: ABDC
12.

```
class A {A(int i) {}} // 1
class B extends A {} // 2
```

    Which of the following statement is true?
    1. The compiler attempts to create a default constructor for class A
    2. No any error, everything will work fine
    3. Compile-time error at 1
    4. Compile-time error at 2
13. Inner classes can not declare_____ variables
    1. static
    2. protected
    3. final
    4. transient
14. Please select a true statement about delete() method of java.io.File.
    1. It can delete a file
    2. It can delete an empty directory
    3. Both of the above
    4. Neither of the above
15. a. Entries are organized as key/value pairs
    b. Duplicate entries replace old entries

    Which interface of the java.util package offer the specified behaviour?
    1. List
    2. Map
    3. Set
    4. None of the above
16. Which type of variables cannot be serialized?
    1. transient
    2. final
    3. private
    4. None of the above

17. There are two computers are connected to internet, one computer is trying to open a socket connection to read the home page of another computer, what are the possible exceptions thrown while connection and reading InputStream?
    1. IOException
    2. MalformedURLException
    3. Both 1 and 2
    4. None of the above

18.
```
class CDAC {
public static void main (String[] args) {
  StringBuffer sb1 = new StringBuffer("ABC");
  StringBuffer sb2 = new StringBuffer("ABC");
  System.out.print("Prints:"+(sb1==sb2)+","+sb1.eq
  uals(sb2));
        }
}
```
What is the result of attempting to compile and run the program?
    1. Prints: false, true
    2. Prints: false, false
    3. Prints: true, false
    4. Prints: true, true

19. How many methods are defined in the Cloneable interface?
    1. None
    2. One
    3. Two
    4. None of the above

20. The term "instance variable" is another name for _____.
    1. Static field
    2. Non-static field
    3. Local variable
    4. None of the above

21. Which of the following modifier can be applied to a class that is not a nested class?
    1. abstract
    2. private
    3. static
    4. Final

22. Which of these lists contains at least one word that is not a Java keyword?
    1. abstract, default, if, private, this
    2. do, implements, protected, boolean, throw
    3. import, break, double, exception, throws
    4. byte, else, return, transient

23.
```
class X implements Runnable
{
   public static void main(String args[])
   {
      /* Missing code? */
   }
   public void run() {}
}
```
Which of the following line of code is suitable to start a thread?
    1. Thread t = new Thread(X);
    2. Thread t = new Thread(X); t.start();
    3. Thread t = new Thread(); x.run();
    4. X run = new X(); Thread t = new Thread(run);

24. Which cannot directly cause a thread to stop executing?
    1. Calling notify() method on an object
    2. Calling the SetPriority() method on a Thread object
    3. Calling the wait() method on an object
    4. Calling read() method on an InputStream object

25. What will happen if you register more than one ActionListener in a button component?
    1. Compile time error
    2. Runtime error
    3. All the registered listeners will be notified when the button is clicked
    4. The last registered listener will be notified when the button is clicked

26. Which of the following is the valid placement constraint when using BorderLayout?
    1. The string "NORTH"
    2. BorderLayout.MIDDLE
    3. BorderLayout.BOTTOM
    4. BorderLayout.CENTER

27. Which of the following layout managers can only accommodate a limited number of components?
    1. BorderLayout
    2. FlowLayout
    3. CardLayout
    4. None of these

28. Which method must be defined by a class implementing the java.lang.Runnable interface?
    1. void run()
    2. public void run()
    3. public void start()
    4. void run(int priority)

29. Which of the following subclass of the Component class will display the MenuBar?
    1. Window, Applet
    2. Applet, Panel
    3. Frame
    4. Menu, Dialog

30. There are 20 threads are waiting in the waiting pool with same priority, how can you invoke 15th thread from the waiting pool?
    1. By calling resume() method
    2. Calling call() method
    3. By calling notify(15) method on the thread instance
    4. None of the above

31. What will be the output of the program?
```
try
{
   int x = 0;
   int y = 5 / x;
}
catch (Exception e)
{
   System.out.println("Exception");
}
catch (ArithmeticException ae)
{
   System.out.println(" Arithmetic Exception");
}
System.out.println("finished");
```
    1. Finished
    2. Exception
    3. Compilation fails
    4. Arithmetic Exception

32.
```
void start() {
   A a = new A();
   B b = new B();
   a.s(b);
   b = null; /* Line 5 */
   a = null;  /* Line 6 */
   System.out.println("start completed"); /* Line 7 */
```

```
}
```

When is the B object created in line 3, eligible for garbage collection?

1. after line 5
2. after line 6
3. after line 7
4. There is no way to be absolutely certain

33. Which of the following would compile without error?

1. `int a = Math.abs(-5);`
2. `int b = Math.abs(5.0);`
3. `int c = Math.abs(5.5F);`
4. `int d = Math.abs(5L);`

34. Which one of the keyword cannot be used with instance variables?

1. transient
2. volatile
3. abstract
4. None of the above

35. This of the following code correctly creates an array of four initialized string objects?

1. `String players[] = new String[4];`
2. `String players[] = {"","","",""};`
3. `String players[];`
   `players = new String[4];`
4. None of the above

36.
```
public class Myfile
{
   public static void main (String[] args)
   {
      String biz = args[1];
      String baz = args[2];
      String rip = args[3];
      System.out.println("Arg is " + rip);
   }
}
```

Select how you would start the program to cause it to print: Arg is 2

1. java Myfile 222
2. java Myfile 1 2 2 3 4
3. java Myfile 1 3 2 2
4. java Myfile 0 1 2 3

37. Which of the following statement is false?

1. Interface methods cannot be static
2. Interface methods must have a return type of void
3. An interface cannot extend another class
4. An interface method cannot be marked as final

38. What will be the output of the program?

```
class Equals
{
   public static void main(String [] args)
   {
      int x = 100;
      double y = 100.1;
      boolean b = (x = y); /* Line 7 */
      System.out.println(b);
   }
}
```

1. True
2. False
3. Compilation fails
4. An exception is thrown at runtime

39. Which modifer is uesd to stop overridding a method?

1. final
2. static
3. abstract
4. None of the above

40. Which of the following keywords can be applied to constructors?

1. private
2. public
3. void
4. All the above

41. Can we find the list of all the class and interface using java reflection?

1. Yes
2. No
3. Can't say
4. None of the above

42. In a RMI Client Program, which of the excpetion might be handled?

1. MalFormedURLException
2. NotBoundException
3. RemoteException
4. All of the above

43. What is the default port used by RMI Registry?

1. 1024
2. 1099
3. 8080
4. 0127

44. Which are the valid ways to create DataInputStream streams?

1. `new DataInputStream();`
2. `new DataInputStream("in.dat", "r");`
3. `new DataInputStream("in.dat")`
4. `new DataInputStream(new FileInputStream("in.dat");`

45. Which of the following is not a Structural Patterns?

1. Adapter pattern
2. Bridge Pattern
3. Command Pattern
4. Composite Pattern

46. What allows the programmer to destroy an object x?

1. x.delete()
2. x.finalize()
3. Runtime.getRuntime().gc()
4. Only the garbage collection system can destroy an object

47. Which of the follow are true statements?

1. An anonymous class can extend only the Object class
2. An anonymous class can not implement an interface
3. An anonymous class is implicitly final
4. An anonymous class can be abstract

48. Is it possible to use more than one design pattern in application?

1. Yes
2. No
3. Can't say
4. None of the above

49. The "Singleton" design pattern _____.

1. Creates only one class of a particular type
2. Allows unified access to a single instance of a particular class
3. Should always be used in place of global variables
4. All of the above

50. Which exception is thrown by the read() method of InputStream class?

1. Exception
2. IOException
3. FileNotFoundException
4. ReadException

Date: July 31, 2009

J2SE – Core Java (60 Minutes)

1. Which of the following does not contain by a method?
   1. A name
   2. A list of input names
   3. A body of executable code
   4. None of the above
2. When we can declare a method as an abstract method?
   1. When we have to want child class to implement the behavior of the method
   2. When we do not want child class to implement the behavior of the method
   3. When we have to want super class to implement the behavior of the method
   4. When we do not want super class to implement the behavior of the method
3. Which of the following is not an access modifier in java?
   1. Public
   2. Protected
   3. Default
   4. None of the above
4. Which statement is false regarding Abstract class?
   1. We can call an abstract method from a Non abstract method in a Java abstract class.
   2. Abstract classes will provide the basic functionality of your application.
   3. A class may implement several interfaces also in case of abstract class a class may extend many abstract classes.
   4. Child class, which inherited this class, will provide the functionality of the abstract methods in abstract class.
5. Exceptions which must be caught using try.. catch() block or we should throw the exception using throws clause is called as_____.
   1. Checked Exceptions
   2. Unchecked Exceptions
   3. Both 1 and 2
   4. None of the above
6. Is there any limit to the length of an identifier?
   1. No
   2. Yes, 65535 characters is the maximum length
   3. Yes
   4. None of the above
7. Can we reference the implicit instance variable this from with in a class method?
   1. Yes
   2. Yes but only in case of abstract class
   3. No
   4. None of the above
8. Which statement is false regarding ARRAY in java?
   1. We can create an array with size determine at run time.
   2. We can not change the size of an array once created
   3. Both 1 and 2
   4. None of the above
9. Which package by default included in java application?
   1. util
   2. io
   3. lang
   4. applet
10. Which statement from the following is false regarding overriding?
    1. return type and arguments of both methods must be identical
    2. Overriding method must be having same or more accessibility as compare to overridden method
    3. Overriding methods should not throw the checked exceptions not thrown by overridden methods
    4. None of the above
11. In which case we write one try and many catch blocks in a program?
    1. Most generic class should precede most specific class
    2. Most specific class should precede most generic class
    3. There is no such rule
    4. Compiler will report an error if you do so.
12. class B extends A and B overrides the dostuff() method inherited from A. which method will get called if you say :
    A ob= new B();
    ob.dostuff();
    1. dostuff() of B
    2. dostuff() of A
    3. There will be ambiguity
    4. None of the above
13. Can we create one or more package declaration per source file?
    1. No you can have only one package declaration per file
    2. Yes specify multiple package declaration at starting of the program
    3. Yes you can use scope braces to show which package definition holds good for respected blocks
    4. None of the above
14. How can you achieve object locking in Threads?
    1. Using join method
    2. Using Serializable
    3. Using Synchronized keyword
    4. All of the above
15. What is the use of flush method?
    1. Flushes any data that is in the buffer to the file.
    2. Flushes any data that is in the buffer to the file and closes the stream.
    3. Both 1 and 2
    4. None of the above
16. String s1="hello"; String s2="hello"; which one will return true?
    1. s1==s2
    2. s1.equals(s2)
    3. Both 1 and 2
    4. None of the above
17. Keeping the default layout of Frame if we give,
    add(new Button("first"));
    add(new Button("second"));
    what will be the output
    1. Frame with only "first " button
    2. Frame with only "second" button
    3. Frame with both the buttons
    4. None of the above

18. If you are not in a paint() method ,how do you create Graphics class reference
    1. new Graphics()
    2. Graphics class has got all static methods, hence no need to create the reference of Graphics class
    3. GetPaint()
    4. getGraphics() of component class
19. What should be done to execute a thread for an object derived from the Thread class?
    1. The run() method should be directly invoked on the Object.
    2. The start() method should be directly invoked on the Object.
    3. The init() method should be directly invoked on the Object.
    4. The creation of the object using the new operator would create a new thread and invoke its run() method.
20. Select the correct statement for assert keyword in java.
    1. If a Java class contains assert statements, then it must be compiled with - 1.4 option.
    2. When a program having assertions is run, -assertion option must be specified, otherwise the assertions get ignored.
    3. A possible syntax of assert statement is assert logical_expression
       If logical_expression evaluates to true, the program generates an AssertionError.
    4. The program terminates on its first AssertionError
21. Which of the following containers use a border Layout as their default layout?
    1. Window
    2. Frame
    3. Dialog
    4. All of the above
22. Which statement is false from the following?
    1. Objects that subclass the Observable class maintain a list of observers.
    2. When an Observable object is updated it invokes the update() method.
    3. The Observer interface is not implemented by objects that observe Observable objects.
    4. All of the above
23. Can we override the equals method or clone method from class Object to take a parameter or return a value of the type that we specify?
    1. No
    2. No, we can override a method from a superclass only if our subclass's method has the same signature and return type.
    3. Yes
    4. None of the above
24. Which of the following statement is false?
    1. The super keyword works hand in hand with inheritance.
    2. Inheritance gives a class implicit access to its super classes.
    3. The super keyword is not essential to the workings of constructors.
    4. The automatic default constructor has no parameter.
25. Which of the following statement is true regarding an interface?
    1. The class provides implementations for all the methods in the interface.
    2. The class does not declare explicitly that it implements the interface.
    3. We can instantiate an interface.
    4. None of the above
26. Which operator is used to test whether the runtime type of its assignment compatible with its second argument?
    1. sizeof()
    2. instanceof()
    3. clone()
    4. None of the above
27. Which of the following is false statement?
    1. We can use relational operator to create a Boolean expression that compares two operands.
    2. If we compare two numeric operands that are not of the same type, Java will convert the less precise operand to the type of the more precise operand.
    3. A boolean variable evaluates to a Boolean value of true or false.
    4. None of the above
28. All exceptions are subclasses of the_____.
    1. Exception class
    2. RuntimeException
    3. ArithmeticException
    4. All of the above
29. What will be the output of the following code?

```
class example {
String mystring = "hello";
public static void main(String[] args) {
System.out.println(myString);
}
}
```

    1. hello
    2. Null
    3. Compiler Error
    4. Runtime Error
30. What will be the output of the following code?

```
class example
{
String mystring = "hello";
public static void main(String[ ] args) {
Example obj = new Example();
System.out.println(obj.myString);
}
}
```

    1. hello
    2. Null
    3. Compiler Error
    4. Runtime Error
31. What is the return type of the method getSource() defined in EventObject class.
    1. int
    2. Object
    3. long
    4. Component
32. Which method identifies the type of a generated event?
    1. getSource()
    2. getType()
    3. getEventType()
    4. getID()

33. On button click which event get generated?
    1. ActionEvent
    2. KeyEvent
    3. MouseEvent
    4. All of the above

34. The default value of GridBagLayout constraint anchor is_____.
    1. NORTH
    2. EAST
    3. CENTER
    4. WEST

35. The default Layout Manager for the Frame and Dialog classes in Java is_____
    1. Flowlayout
    2. Borderlayout
    3. Gridlayout
    4. None of the above

36. The most suitable choice for maintaining an ordered sequence of objects,when objects are frequently inserted and removed from the middle of the sequence is_____.
    1. HashMap
    2. HashSet
    3. TreeMap
    4. LinkedList

37. What will be the output of following code?

```
class base
{   int i;
    base()
    {
        add(1);
    }
    void add(int v)
    {
        i+=v;
    }
    void print()
    {
        System.out.println(i);
    }
}
class sub extends base
{
    sub()
    {
        add(2);
    }
    void add(int v)
    {
        i+=v*2;
    }
}
public class test6
{
    static void disp(base b)
    {
        b.add(8);
        b.print();
    }
    public  static void main(String args[])
    {
        disp(new sub());
    }
}
```

    1. 9
    2. 8
    3. 22
    4. 20

38. What will be the output?

```
int c[]=new int[5];
int a[];
a=c;
```

    1. It will work
    2. Compiler Error
    3. Runtime Error
    4. None of the above

39. What will we do to put more than one applet in a web page?
    1. No we can not do this
    2. Include a separate APPLET tag for each applet we wish to put on our web page.
    3. In single APPLET tag we will add all applet.
    4. None of the above

40. How can we initialize an applet?
    1. No we can not initialize it
    2. Using constructor
    3. Use the init method
    4. Both 2 and 3

41. Select false statement from the following.
    1. We can put different applets on the same page.
    2. We cannot put multiple copies of the same applet in one page.
    3. We can specify a name in each APPLET tag so that the different applets on the page can locate and communicate with each other.
    4. All of the above

42.

```
int button Count=0;
Panel centerPanel = new Panel();
void addButton() {
 ++buttonCount;
centerPanel .add(new Button("button" +
buttonCount));
centerPanel.validate();
}
```

In above code what is the purpose of using validate method?
    1. It activates its layout manager to take the new component into account.
    2. It deactivates its layout manager to take the new component into account.
    3. To add more buttons in to panel
    4. None of the above

43. How can we restart a stopped thread?
    1. Using start() method.
    2. The thread can not be run again.
    3. Using run() method
    4. None of the above

44.

```
public class MyOuter {
  public static class MyInner  {
      public static void hello() { }
```

which statement, if placed in a class other than myOuter or myInner, instantiates an instance of the nested class?
    1. MyOuter.MyInner m = new MyOuter.MyInner();
    2. MyOuter.MyInner mi = new MyInner();
    3. MyOuter m = new MyOuter();
    4. MyInner mi = new MyOuter.MyInner();

45. Assume the following method is properly synchronized and called from a thread A on an object B:
wait(2000);
After calling this method, when will the thread A become a candidate to get another turn at the CPU?
    1. After thread A is notified, or after two seconds
    2. After the lock on B is released, or after two seconds.
    3. Two seconds after thread A is notified.
    4. Two seconds after lock B is released.
46. What is the function of method getContentPane()?
    1. Returns content object.
    2. Returns content object that represents the container pane.
    3. Returns Container object that represents the content pane.
    4. All of the above
47. In which package, The AWT classes are stored?
    1. javax.awt
    2. java.util
    3. java.AWT
    4. java.awt
48. What is the purpose of calling seek(long) function?
    1. It sets the pointer to the specified number of bytes from the beginning of the file.
    2. It sets the pointer to the specified number of bytes from the end of the file.
    3. Returns a long for the number of bytes in the file.
    4. All of the above
49. Which statement is correct regarding Synchronization?
    1. Methods as well as variables can be Synchronized.
    2. All methods in a class must be Synchronized.
    3. If two methods are Synchronized in a class, only one thread can be accessing one of the two methods.
    4. If a thread goes to sleep, it releases its locks.
50. Which statement is correct regarding Inner class?
    1. A regular Inner class is declared inside the curly braces of another class but cannot out side any method or other code block.
    2. An Inner class cannot mark with an access modifier.
    3. To instantiate an inner class, it is not necessary that every time we should have reference to an instance of the outer class.
    4. The only modifiers you can apply to a method-local inner class are abstract and final.