InfoBeans Foundation

InfoBeans Social and Educational Welfare Society

Centre 1: SGSITS College, 4th Floor, ATC Building, Indore (M.P)
Centre 2: 170 - Madhovastika, Rajmohalla, Jawahar Marg, Indore (M.P)
Contact : +91-9981332199, 9981336599

Trainee Evaluation JAVA Assessment - 1

Date: _____
Name: _____
Batch No.: ITEP - 10th (Madhovastika)
Subject: ITEP - One year FREE Software Engineering Program

Time Duration: 2 Hours **Total Marks 100**

Note: Paper contain 40 Questions.
Question 1 to 34 Each having 02 Marks
Question 35 to 38 Each Having 05 marks
Question 39 & 40 Each Having 06 marks

Q1. What will be the output of the following Java code snippet?

```
class abc
{
  public static void main(String args[])
  {
    if(args.length>0)
    System.out.println(args.length);
  }
}
```

(a) The snippet compiles and runs but does not print anything
(b) The snippet compiles, runs and prints 0
(c) The snippet compiles, runs and prints 1
(d) The snippet does not compile

Q2. What will be the output of the following Java code?

```
class Output
{
  public static void main(String args[])
  {
    Integer i = new Integer(257);
    byte x = i.byteValue();
    System.out.print(x);
  }
}
```

(a) 257 (b) 256
(c) 1 (d) 0

Q3. What will be the output of the following Java program?

```
class array_output
{
  public static void main(String args[])
  {
    int array_variable [] = new int[10];
  for (int i = 0; i < 10; ++i) {
array_variable[i] = i/2;
array_variable[i]++;
System.out.print(array_variable[i] + " ");
i++;
}
}
```

(a) 0 2 4 6 8 (b) 1 2 3 4 5
(c) 0 1 2 3 4 5 6 7 8 9 (d) 1 2 3 4 5 6 7 8 9 10

Q4. Which of these can be returned by the operator &?
a) Integer b) Boolean
c) Character d) Integer or Boolean

Q5. What is Truncation in Java?
a) Floating-point value assigned to an integer type
b) Integer value assigned to floating type
c) Floating-point value assigned to a Floating type
d) Integer value assigned to an integer type

Q6. Is SimpleDateFormat thread safe?
a) True b) False

Q7. Which of the following is a garbage collection technique?
a) Cleanup model
b) b) Mark and sweep model
c) Space management model
d) Sweep model

Q8. What will be the output of the following Java code?

```
class A
{
  int i;
int j;
  A()
  {
    i = 1;
    j = 2;
  }
}
class Output
{
  public static void main(String args[])
  {
    A obj1 = new A();
System.out.print(obj1.toString());
  }
}
```

a) true b) false
c) String associated with obj1 d) Compilation Error

Q9. What will be the output of the following Java code?

```
class Output
{
  public static void main(String args[])
  {
    byte a[] = { 65, 66, 67, 68, 69, 70 };
    byte b[] = { 71, 72, 73, 74, 75, 76 };
    System.arraycopy(a, 1, b, 3, 0);
```

```
        System.out.print(new String(a) + " " + new
        String(b));
      }
    }
```

a) ABCDEF GHIJKL b) ABCDEF GCDEFL
c) GHIJKL ABCDEF d) GCDEFL GHIJKL

Q10. What will be the output of the following Java code?

```
import java.io.*;
class streams
{
  public static void main(String[] args)
  {
    try
    {
FileOutputStream fos = new FileOutputStream("serial");
ObjectOutputStream oos = new ObjectOutputStream(fos);
      oos.writeInt(5);
      oos.flush();
      oos.close();
    }
    catch(Exception e)
      {
       System.out.println("Serialization" + e);
      System.exit(0);
      }
    try
      {
      int z;
    FileInputStream fis = new     FileInputStream("serial");
    ObjectInputStream ois = new ObjectInputStream(fis);
      z = ois.readInt();
      ois.close();
      System.out.println(x);
    }
    catch (Exception e)
      {
        System.out.print("deserialization");
      System.exit(0);
      }
    }
  }
```

a) 5 b) void
c) serialization d) deserialization

Q11. Externalizable provides which method for reading and writing in java.

a) readObject() and writeObject()
b) writeExternal() and readExternal()
c) externalWrite() and externalRead()
d) write() and read()

Q12. Can you customize serialization process when you have implemented Serializable interface

a) By defining objectWrite() and objectRead() methods
b) By defining write() and read() methods
c) It's not possible
d) By defining writeObject() and readObject() methods

Q13. Which exception will the following throw?

```
public class Test {
  public static void main(String[] args) {
    Object obj = new Integer(3);
    String str = (String) obj;
    System.out.println(str);
  }
}
```

a) ArrayIndexOutOfBoundsException
b) ClassCastException
c) IllegalArgumentException
d) NumberFormatException
e) None of the above.

Q14. Which of the following exceptions are thrown by the JVM?(Choose all that apply)

a) ArrayIndexOutOfBoundsException
b) ExceptionInInitializerError
c) java.io.IOException
d) NullPointerException
e) NumberFormatException
f) All above mentioned

Q15. Select all the class that extend the String Class

a) StringBuffer b) StringBuilder
c) StringWriter d) None

Q16. What is the result of the following code?

```
String s1 = "Java";
String s2 = "Java";
StringBuilder sb1 = new StringBuilder();
sb1.append("Ja").append("va");
System.out.println(s1 == s2);
System.out.println(s1.equals(s2));
System.out.println(sb1.toString() == s1);
System.out.println(sb1.toString().equals(s1));
```

a) true is printed out exactly once.
b) true is printed out exactly twice.
c) true is printed out exactly three times.
d) true is printed out exactly four times.
e) The code does not compile

Q17. Which of these methods loads the specified dynamic library?

a) load() b) library()
c) loadlib() d) loadlibrary()

Q18. What will be the output of the following java code?

```
int arr[]=new int [5];
System.out.print(arr);
```

a) 0
b) Value stored in arr[0]
c) 00000
d)Class name@hashcode in hexadecimal form

Which of these methods is a part of Abstract Window Toolkit (AWT) ?

a) display()
b) paint()
c) drawString()
d) transient()

Q20. What will be the output of the following Java program?

```
class newthread implements Runnable
 {
Thread t1,t2;
    newthread()
    {
      t1 = new Thread(this,"Thread_1");
      t2 = new Thread(this,"Thread_2");
      t1.start();
      t2.start();
}
public void run()
    {
       t2.setPriority(Thread.MAX_PRIORITY);
  System.out.print(t1.equals(t2));
    }
}
class multithreaded_programing
{
   public static void main(String args[])
   {
     new newthread();
   }}
```

a) true
b) false
c) truetrue
d) falsefalse

Q21. Shell sort algorithm is an example of?

a) Bottom-up sorting
b) In-place sorting
c) Internal sorting
d) External sorting

Q22. Which of the following sorting algorithm is stable?

a) Introsort
b) Tim sort
c) Heap sort
d) Quick sort

Q23. Method to convert MapMessage Object into Spring runtime exception JmsException.

a) JmsUtils.convertJmsAccessException()
b) JmsUtils.convertJmsAccess()
c) JmsUtils.convertJms()
d) none of the mentioned

Q24 The consequence of a design pattern are:

a) pitfalls of using the particular pattern
b) The result of choosing a pattern
c) The time it takes to design a program using the pattern
d) The time a program using the pattern takes to run

Q25 What is the use of the Builder Pattern?

a) It simplifies the creation of complex objects by breaking the creation process into steps.
b) It allows an object to alter its behavior when its internal state changes.
c) It ensures a class has only one instance and provides a global point of access to it.
d) It helps in hiding the complexities of the system and provides an interface to the client

Q26. Which design pattern provides a single class which provides simplified methods required by client and delegates call to those methods?

a) Adapter pattern
b) Builder pattern
c) Facade pattern
d) Prototype pattern

Q27. In which process, a local variable has the same name as one of the instance variables?

a) Serialization
b) Variable Shadowing
c) Abstraction
d) Multi-threading.

Q28. What do you mean by nameless objects?

a) An object created by using the new keyword.
b) An object of a superclass created in the subclass.
c) An object without having any name but having a reference.
d) An object that has no reference.

Q29. Which of the following is an immediate subclass of the Panel class?

a) Applet class
b) Window class
c) Frame class
d) Dialog class

Q30. Which of the following is false?

a) The rt.jar stands for the runtime jar
b) It is an optional jar file
c) It contains all the compiled class files
d) All the classes available in rt.jar is known to the JVM

Q31. Given that Student is a class, how many reference variables and objects are created by the following code?

```
Student studentName, studentId;
studentName = new Student();
Student stud_class = new Student();
```

a) Three reference variables and two objects are created.
b) Two reference variables and two objects are created.
c) One reference variable and two objects are created.
d) Three reference variables and three objects are created.

Q32. Which of the following method is used inside session only?

(a) merge()
(b) update()
(c) end()
(d) kill()

Q33. Which of the following is not a core interface of Hibernate?

a) Configuration
b) Criteria
c) SessionManagement
d) Session

Q34. What will be the output of the following program?

```
public class Test {
public static void main(String[] args) {
  int count = 1;
  while (count <= 15) {
  System.out.println(count % 2 == 1 ? "***" :
"+++++");
  ++count;
    }    // end while
  }    // end main
}
```

a) 15 times ***
b) 15 times +++++
c) 8 times *** and 7 times +++++
d) Both will print only once

Q35 Write a Java program to test if a given string contains the specified sequence of char values.

Q36 Write a Java program to check whether two String objects contain the same data.
Sample Output:
"Stephen Edwin King" equals "Walter Winchell"? false
"Stephen Edwin King" equals "Mike Royko"? false

Q37 Write a Java program to find the smallest and second smallest elements of a given array.

Q38 Write a Java program to find the maximum product of two integers in a given array of integers. Example:
Input :
nums = { 2, 3, 5, 7, -7, 5, 8, -5 }
Output:
Pair is (7, 8), Maximum Product: 56

Q39 Alphabet A Pattern

```
*   *   *
*       *
*   *   *
*       *
*       *
*       *
```

Q40.

```
5
5 4
5 4 3
5 4 3 2
5 4 3 2 1
```