

## OOCL Java Boot camp weekly Test 3.

Time: 1.5 hour

Full marks: 100

Name: \_\_\_\_\_ Score: \_\_\_\_\_

### Part 1. Multiple Choice/code Questions.

(Please choose the best answer from the given options: 75 points)

- 1)** Table Employee has 10 records. It has a non-NULL SALARY column which is also UNIQUE. The SQL statement, prints:

*SELECT COUNT (\*) FROM Employee WHERE SALARY > ANY (SELECT SALARY FROM EMPLOYEE);*

- A. 10                    B. 9                    C. 5                    D. 0

- 2)** The SQL statement prints:

*SELECT SUBSTR ('abcdefghijkl', INSTR ('123321234', '2', 3, 2), 2) FROM DUAL;*

- A. gh                    B. 23                    C. bc                    D. ab

- 3)** Which of the following must be enclosed in double quotes?

- A. Dates                B. Column Alias        C. Strings                D. All of the above

- 4)** Which of the following command makes the updates performed by the transaction permanent in the database?

- A. ROLLBACK            B. COMMIT                C. TRUNCATE            D. DELETE

- 5)** Which of the following query is correct for using comparison operators in SQL?

- A. SELECT name, course\_name FROM student WHERE age>50 and <80;
- B. SELECT name, course\_name FROM student WHERE age>50 and age <80;
- C. SELECT name, course\_name FROM student WHERE age>50 and WHERE age<80;
- D. None of these

**6)** How to select all data from student table starting the name from letter 'r'?

- A. SELECT \* FROM student WHERE name LIKE 'r%';
- B. SELECT \* FROM student WHERE name LIKE '%r%';
- C. SELECT \* FROM student WHERE name LIKE '%r';
- D. SELECT \* FROM student WHERE name LIKE '\_r%';

**7)** When using the SQL INSERT statement:

- A. rows cannot be copied in mass from one table to another only.
- B. rows can be modified according to criteria only.
- C. rows can either be inserted into a table one at a time or in groups.
- D. rows can be inserted into a table only one at a time only.

**8)** Which of the following join is also called as an 'inner-join'?

- A. Non-Equijoin
- B. Self-Join
- C. Equijoin
- D. None of these

**9)** Which of the following is illegal?

- A. SELECT SYSDATE - SYSDATE FROM DUAL;
- B. SELECT SYSDATE - (SYSDATE - 2) FROM DUAL;
- C. SELECT SYSDATE - (SYSDATE + 2) FROM DUAL;
- D. None of these

**10)** Find the name of those cities with temperature and condition whose condition is either sunny or cloudy but temperature must be greater than 70oF.

- A. SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' AND condition = 'cloudy' OR temperature > 70;
- B. SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' OR condition = 'cloudy' OR temperature > 70;
- C. SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' OR condition = 'cloudy' AND temperature > 70;
- D. SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' AND condition = 'cloudy' AND temperature > 70;

**11)** Which is the way to provide configuration metadata to spring?

- A - XML Based configuration file.
- B - Annotation based configuration.
- C - Java based configuration.
- D - All of the above.

**12)** What is aspect?

- A - Aspect is a way to do the dependency injection.
- B - A module which has a set of APIs providing cross-cutting requirements.
- C - Aspect is used to log information of application.
- D - Aspect represents properties of spring based application.

**13)** How to pass information from JSP to included JSP?

- A - Using <%jsp:param> tag.
- B - Using <%jsp:page> tag.

C - Using <%jsp:import> tag.

D - Using <%jsp:useBean> tag.

**14)** The Java \_\_\_\_\_ specification defines an application programming interface for communication between the Web server and the application program.

- a) Servlet
- b) Server
- c) Program
- d) Randomize

**15)** A JSP is transformed into:

- a) Java applet
- b) Java servlet
- c) Either 1 or 2 above
- d) Neither 1 nor 2

**16)** What would be the output of following piece of java code?

```
int Output = 10;
boolean b1 = false;
if((b1 == true) && ((Output += 10) == 20))
{
    System.out.println("We are equal " + Output);
}
else
{
    System.out.println("Not equal! " + Output);
}
```

**17)** What results from the following code?

1. class MyClass
2. {
3. void myMethod(int i) {System.out.println("int version");}
4. void myMethod(String s) {System.out.println("String version");}
5. public static void main(String args[])
6. {
7. MyClass obj = new MyClass();

```
8.     char ch = 'c';
9.     obj.myMethod(ch);
10.    }
11. }
```

- A. Line 4 will not compile as void methods can't be overridden.
- B. An exception at line 9.
- C. Line 9 will not compile as there is no version of myMethod which takes a char as argument.
- D. The code compiles and produces output: int version.
- E. The code compiles and produces output: String version.

**18)** What is displayed when the following code is compiled and executed?

```
String s1 = new String("Test");
String s2 = new String("Test");
if (s1==s2)
    System.out.println("Same");
if (s1.equals(s2))
    System.out.println("Equals");
```

- A. Same Equals
- B. Equals
- C. Same
- D. The code compiles, but nothing is displayed upon execution.
- E. The code fails to compile.

**19)** What is the result when you compile and run the following code?

```
public class Test
{
    public void method()
    {
        for(int i = 0; i < 3; i++)
        {
```

```
        System.out.print(i);
    }
    System.out.print(i);
}
}
```

- A. 0122      B. 0123      C. Compilation error      D. None of these

**20)** Given the code below, and making no other changes, which access modifiers (public, protected or private) can legally be placed before myMethod() on line 3? If line 3 is left as it is, which keywords can legally be placed before myMethod on line 8?

```
1. class HumptyDumpty
2. {
3.     void myMethod() {}
4. }
5.
6. class HankyPanky extends HumptyDumpty
7. {
8.     void myMethod() {}
9. }
```

- A. private or nothing (i.e. leaving it as it is) on line 3. Nothing (i.e. leaving it as it is) or protected or public on line 8.
- B. public or protected on line 3. private or nothing (i.e. leaving it as it is) on line 8.
- C. nothing (i.e. leaving it as it is) or protected or public on line 3. private or nothing (i.e. leaving it as it is) on line 8.
- D. None of the above

**21) What results from trying to compile and run the following code?**

```
1. import java.io.*;
2.
3. class MyClass
4. {
5.     public static void main(String args[])
6.     {
7.         try
8.         {
9.             FileOutputStream fos = new FileOutputStream("abc");
10.            DataOutputStream dos = new DataOutputStream(fos);
11.            dos.writeByte(12);
12.            fos.write(100);
13.            fos.close();
14.            dos.close();
15.
16.            FileInputStream fis = new FileInputStream("abc");
17.            DataInputStream dis = new DataInputStream(fis);
18.            byte b = dis.readByte();
19.            System.out.print(b + " ");
20.            int i = dis.readInt();
21.            System.out.println(i);
22.            fis.close();
23.            dis.close();
24.        }
25.        catch(IOException e)
26.        {
27.            System.out.println("An exception occurred");
28.        }
29.    }
30. }
```

- A. The output is 12 100
- B. Compilation error at line 12 because once you chain a DataOutputStream onto the FileOutputStream, you can't write directly to the FileOutputStream.
- C. An exception occurs at Run time at line 20 because there are only two bytes written in the file "abc" and the code tries to read a byte and then an integer.
- D. Compilation error occurs at line 20 because there are only two bytes written in the file "abc" and the code tries to read a byte and then an integer.

**Part 2. Answering sort Questions.**  
(Please write answers to the following questions 5\*5== 25)

**Question 1:** What is dependency injection in Spring Framework?

**Question 2:** Elaborate the following technical terms:

**DOM:**

**AJAX:**

**MVC:**

**OEM:**

**IoC:**

**Question 3:** What is Spring and why would we use it in modern web development?

**Question 4:** Write java program to take any real number input from user and create pyramid of that numbers like in Pattern of the following image.

A numerical pyramid pattern where each row contains a sequence of numbers starting from 1 and increasing by 1 until they reach a peak, then decreasing back to 1. The pattern is as follows:

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
7 7 7 7 7 7 7
8 8 8 8 8 8 8 8
9 9 9 9 9 9 9 9 9

**Question 5:** Please explain modern client-server scenario and web content handling with graph.