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## PROGRAMMING IN JAVA

### Assignment1

TYPE OF QUESTION: MCQ

Number of questions: 10

Total mark:  $10 \times 1 = 10$

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#### **QUESTION 1:**

Which of the following is true?

- a. Java uses only interpreter.
- b. Java uses only compiler.
- c. Java uses both interpreter and compiler.
- d. None of the above.

**Correct Answer: c**

#### **Detailed Solution:**

Creating a *.class* file from *.java* using *javac* command is a compilation task, whereas execution of a *.class* file using *java* or *appletviewer* command is the process of interpretation.

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#### **QUESTION 2:**

A Java file with extension '*.class*' contains

- a. Java source code
- b. HTML tags
- c. Java Byte code
- d. A program file written in Java programming language

**Correct Answer: c**

#### **Detailed Solution:**

A *.class* file is a compiled version of the *.java* file in Byte code (it is a kind of object code with JVM (Java Virtual Machine) as the target machine).

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#### **QUESTION 3:**

Which of the following features are **not** common in both Java and C++?

- a. The class declaration.
- b. The access modifiers.
- c. The encapsulation of data and methods.
- d. Multiple inheritance from class

**Correct Answer: d**

**Detailed Solution:**

C++ supports multiple inheritances whereas Java does not.

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**QUESTION 4:**

**What is the value returned by the method  $f()$  defined below ?**

```
public static int f(int x, int y){return (x>y) ? y : x;}
```

- a. The sum of x and y that is,  $x + y$ .
- b. The difference of x and y that is,  $x - y$ .
- c. The maximum of x and y that is, the larger value of x and y.
- d. The minimum of x and y that is, the smaller value of x and y.

**Correct Answer: d**

**Detailed Solution:**

It will return the minimum of x and y.

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**QUESTION 5:**

A platform is the hardware or software environment in which a program runs. Which of the following is/are Java platform component(s)?

- a. HTML
- b. Java Virtual Machine
- c. Java Application Programming Interface (API)
- d. HotJava

**Correct Answer: b,c**

**Detailed Solution:**

A platform is the hardware or software environment in which a program runs. Some of the most popular platforms are Microsoft Windows, Linux, Solaris OS, and Mac OS. Most platforms can be described as a combination of the operating system and underlying hardware. The Java



platform differs from other platforms as it is a software-only platform that runs on top of other hardware-based platforms.

The Java platform has two components:

- a. The Java Virtual Machine
- b. The Java Application Programming Interface (API)

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### **QUESTION 6:**

Consider the following program.

```
public class Question1{
    public static void main(String args[]){
        for(int a=1;a<3;a+=3){
            System.out.print(--a);
        }
    }
}
```

What will be the output of the program if it is executed?

- a. 0
- b. 01
- c. 012
- d. 0123

**Correct Answer: a**

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### **QUESTION 7:**

Following is a piece of code where some parts of a statement is missing:

```
public class Question3{
    public static void main(String args[]){
        charnptel[]={ 'N', 'P', 'T', 'E', 'L' };
        System.out.print(_____);
    }
}
```

In the following, some options are given. You have to choose the correct option for the argument in `System.out.print()` function to print the first and the last characters in the array `npTEL`.

- a. `npTEL[npTEL.length-1] + npTEL[0]`
- b. `npTEL[0] + npTEL[npTEL.length-1]`
- c. `"" + npTEL[0] + npTEL[npTEL.length-1]`
- d. `"" + npTEL[npTEL.length-1] + npTEL[0]`

**Correct Answer: c**

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### **QUESTION 8:**

Which of the following **cannot** be used for a variable name in Java?

- a. identifier
- b. final
- c. malloc
- d. calloc

**Correct Answer: b**

### **Detailed Solution:**

*final* is a reserved keyword in Java, which cannot be used for naming a variable or class.

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### **QUESTION 9:**

```
public class Operator3 {  
    public static void main(String[] args) {  
        String str1="NPTEL";  
        String str2="java";  
        System.out.println(str1+str2); //Statement 1  
        int a=20;  
        int b=10;  
        System.out.println(a+b);           //Statement 2  
    }  
}
```

**Which of the following statement(s) is/are correct?**

- a. Except + (plus) operator all other operators are overloaded in java.
- b. The output of the Statement 1 is  
NPTELjava
- c. The output of the Statement 2 is

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1020

- d. The output of the Statement 2 is  
30

**Correct Answer: b, d**

**Detailed Solution:**

+ (plus) operator is overloaded in java.

**QUESTION 10:**

Which of the following is an incorrect array declaration?

- a. `int[] a = new int[20];`
- b. `int [ ] a;`
- c. `int[][] a = new int[20];`
- d. `int[][] a = {{1, 2, 4}, {1, 2, 4}};`

**Correct Answer: c**

**Detailed Solution:**

In the left hand side, it is a declaration for two-dimensional array, whereas at the right side it uses *new* operator to allocate a memory for a one-dimensional array.

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