



PROGRAMMING IN JAVA

Assignment1

TYPE OF QUESTION: MCQ

Number of questions: 10

Total mark: $10 \times 1 = 10$

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.

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).

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.

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.

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)

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

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

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.

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

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.
