## PROGRAMMING IN JAVA

### Assignment 1

#### TYPE OF QUESTION:  MCQ

**Number of questions**: 10           **Total mark: 10× 1 = 10**

### QUESTION 1:

**Which of the following code fragment(s) is/are true?**

a. 
```java
public class Main
{
        static public  void main(String[] argv) {
                System.out.println("Hello World");
        }
}
```

b. 
```java
public class Main
{
        static public  void main(String[] args) {
                System.out.println("Hello World");
        }
}
```

c. 
```java
public class Main
{
        public static void main(String[] args) {
                System.out.println("Hello World");
        }
}
```

d. 
```java
public class Main
{
        public static void main(String[] argv) {
                System.out.println("Hello World");
        }
}
```

**Correct Answer: a,b,c,d**

**Detailed Solution:**

The modifiers public and static can be written in either order (public static or static public). You can name the argument anything you want, but most programmers choose "args" or "argv".

## QUESTION 2:

**Which of the following is not a valid comment?**

a. /** comment */
b. /* comment */
c. /* comment
d. // comment

**Correct Answer: c**

**Detailed Solution:**
      Option c : /* comment .
      This is not valid comment statement

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## QUESTION 3:

Which of the following is **not** an object-oriented programming paradigm?

a. Encapsulation
b. Inheritance
c. Polymorphism
d. Dynamic memory allocation

**Correct Answer: d**

**Detailed Solution:**
Dynamic memory allocation is a memory allocation strategy and not a programming paradigm.

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## QUESTION 4:

Which of the following is **not a correct** statement?

a. It is always necessary to use *new* operator to initialize an array.
b. Array can be initialized using comma separated expressions surrounded by curly braces.
c. Array can be declared and memory can be allotted in one statement.
d. An array can be declared in one statement and memory can be allocated in other statement.

**Correct Answer: a**

**Detailed Solution:**

Array can be initialized using both new and comma separated expressions surrounded by curly braces example : int a [ ] = new int[5]; int [] a; a = new int [10]; and int  a [] = { 0, 1, 2, 3, 4};

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## QUESTION 5:

**When you compile a program written in the Java programming language, the compiler converts the human-readable source file into platform-independent code that a Java Virtual Machine can understand. What is this platform-independent code called?**

    a. Source code
    b. Bytecode
    c. Machinecode
    d. Opcode

**Correct Answer: b**

**Detailed Solution:**

Byte code is an intermediate code between source code and machine code that is executed by an interpreter such as JVM. e.g., Java class files.

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## QUESTION 6:

**Consider the following program.**

```
public class Question{
    public static void main(String args[]){
        for(int a=1;a<2;a+=1){
            System.out.print(a+++a);
        }
    }
}
```

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

    a. 3
    b. 2
    c. 4
    d. 1

**Correct Answer: a**

## QUESTION 7:

**Why an array is called** "homogeneous *collection of data*" **in Java?**

   a. Array cannot store multi-dimensional data.
   b. Array has a limited capacity.
   c. Array can store only one type of data.
   d. Array uses indices for addressing an item.

**Correct Answer: c**

**Detailed Solution:** Homogeneous data means a data of same type. And, array can hold only one type of data i.e. you cannot have an array with items of multiple data type.

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## QUESTION 8:

**Which of the following can be used for a variable name in Java?**

   a. boolean
   b. final
   c. finally
   d. calloc

**Correct Answer: d**

**Detailed Solution:**
final, boolean, finally are reserved keyword in Java, which cannot be used for naming a variable or class.

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## QUESTION 9:

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

     System.out.println(a+b+str2); //Statement 2
   }
}
```

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

a. The output of the Statement 1 is
   NPTEL2010
b. The output of the Statement 1 is
   NPTEL30
c. The output of the Statement 2 is
   1020java
d. The output of the Statement 2 is
   30java

**Correct Answer: a,d**

**Detailed Solution:**
+ (plus) operator is overloaded in java.

## QUESTION 10:

**What will be the output of the following code?**

```java
public class Question{
    public static void main(String args[]){
        if(true){
            System.out.print("Welcome");
        }
        if(1==1){
            System.out.print(" to ");
        }
        if(1){
            System.out.print("NPTEL");
        }
    }
}
```

a. Welcome
b. Welcome to
c. Welcome to NPTEL
d. Compilation Error

**Correct Answer: d**

**Detailed Solution:**

**int is not allowed in if(…) construct.**