



PROGRAMMING IN JAVA

Assignment 1

TYPE OF QUESTION: MCQ

Number of questions: 10

Total mark: $10 \times 1 = 10$

QUESTION 1:

Java is a platform independent programming language because

- a. It is written in an almost similar manner as English language.
- b. It compiles to an intermediate code targeting a virtual machine, which can be interpreted by an interpreter for a given OS.
- c. Java compiler translates the source code directly to the machine level language.
- d. It follows the concept of “write once and compile everywhere”.

Correct Answer: b

Detailed Solution:

The compiled code (byte code) can be executed (interpreted) on any platform running a JVM.

QUESTION 2:

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 3:

Why an array is called “*a homogeneous collection of data*”?

- a. An array can store different types of data.
- b. Size of an array is limited.



- c. An array can store only one type of data.
- d. An array uses indices for addressing an item stored in it.

Correct Answer: c

Detailed Solution:

Homogeneous data means data of same type and an array can contain only one type of data i.e. you cannot have an array with items of multiple data type.

QUESTION 4:

Which of the following is a class in Java?

- a. int
- b. String
- c. short
- d. double

Correct Answer: b

Detailed Solution:

The class String is defined in *java.lang* package, which is a default package in any Java program. Others are data types in Java programming language.

QUESTION 5:

In Java, which of the following data type groups are of same size?

- a. int and long
- b. long and float
- c. float and double
- d. int and float

Correct Answer: d

Detailed Solution: The size of the data types in the options are listed below:

Type	Size
int	32 bits



long	64 bits
float	32 bits
double	64 bits

QUESTION 6:

Which of the following statement(s) is/are NOT correct?

- 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 allocated in the same 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. All of the following are valid examples for declaring an array in Java.

```
int a [ ] = new int[5];  
int [ ] a; a = new int [10];  
int a [ ] = { 0, 1, 2, 3, 4};  
int a [ ];  
a = new int[10];
```

QUESTION 7:

Which of the following is not a Language Processor?

- a. Assembler
- b. Compiler
- c. Interpreter
- d. Fortran

Correct Answer: d

Detailed Solution:



A computer understands instructions in machine code i.e., in the form of 0s and 1s. Special translators are required for this operation like Assembler, Compiler and Interpreter. Fortran is a programming language but not a language processor.

QUESTION 8:

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 9:

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.



QUESTION 10:

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. Pointer for referencing

Correct Answer: d

Detailed Solution:

C++ supports pointer but java doesn't.
