JAVA Practice Questions Set 1

Q1- Why java is the platform independent?

The most unique feature of java is **platform independent**. In any programming language, source code is compiled into executable code. When **javac** compiles a java program it generates an **executable file** called a **.class file** .class file contains byte codes. Byte codes are interpreted only by JVM. Since these JVMs are made available across all platforms, so we can execute this byte code on any platform. Byte code generated in a windows environment can also be executed in a Linux environment. This makes the java platform independent.

Q2- What is bytecode in java ?

When a javac compiler compiles a class, it generates a **.class file**. This .class file contains a set of instructions called **byte code**. Byte code is a machine-independent language and contains a set of instructions that are to be executed only by JVM. JVM can understand these byte codes.

Q3 - What is a class?

Classes are the fundamental or basic units in Object Oriented Programming. A class is a kind of blueprint or template for objects. Class defines variables, and methods. A class tells what type of objects we are creating. All programming constructs in java reside in class. When JVM starts running it first looks for the class. Every Java application must have at least one class and one main method. Class starts with the **class** keyword.

Q4- Explain about main() method in java.

Main() method is the starting point of execution for all java applications(**entry point**).
public static void main(String[] args) {}
Every Java application must have at least one main method.

Q5 - What is ASCII Code?

ASCII (American Standard Code for Information Interchange) is the most common character encoding format for text data in computers and on the internet. In standard ASCII-encoded data, there are unique values for 128 alphabetic, numeric, or special additional characters and control codes.

Q6 - Difference between Character Constant and String Constant in java ?

Character constant is enclosed in single quotes. String constants are enclosed in double-quotes. Character constants are single digits or characters. **String** Constants are collections of characters.
Ex:'2', 'A'
Ex: "Hello World"

Q7- What are High-level; and low-level languages?

High-level languages-A high-level language is any programming language that enables the development of a program in a much more user-friendly programming, java, python are all high-level languages

Low-level languages - Low-level languages can convert to machine code without a compiler or interpreter, they are written directly in a way which machine understands, it requires memorizing or looking up numerical codes for every instruction, and is extremely difficult to modify

Q8 - How to Take an Integer input from a standard input device In JAVA?

```
import java.util.Scanner;
Scanner sc= new Scanner(System.in);
int x=sc.nextInt();
System.out.println(x);
```

Explanation - Now Import java.util.Scanner will import the Scanner class. And then Scanner sc =new Scanner(System.in) here, with the system.in we are defining that we will be using a standard input device that is the keyboard, Then we are asking the Scanner class to keep on scanning the keyboard, now with int x=sc.nextInt() , we are asking to read the inputs scanned by the scanner class as an integer and store it in RAM with an integer datatype.

Q9 - How to take **Character** Input from the user in JAVA?

```
char x =sc.next().charAt(0);
```

Q10- Find The value of "z" in the below example.

```
int x=8;
byte y=10;
int z=++x +y+ y-- + --x+ y;
```

Ans - 40