

Q1. What is a programming language?

Ans. Programming language is a language which consists of a set of instructions through which a programmer can communicate with a computer to perform certain tasks. Programmers must be well known with the syntax of a particular language to perform tasks.

Q2. Why do we need a programming language?

Ans. Programming language is a way through which we can enhance and increase the power of a computer. Through programming language developers used to develop programs. Those programs can conduct online banking and purchase our ticket while traveling by bus or train or aeroplane etc.

Q3 What are the features of java?

Ans. **Object Oriented:** Java language is truly based on the concept of object oriented.

**Platform-Independent & Portability:** Java language is platform independent which means we can run java programs in any operating system. Writing once anywhere is the second way to understand java.

**Simple:** Java is very simple to understand, it almost comprises c and c++ concepts.

**Secure:** Java offers a variety of defenses against malware and viruses. It guarantees that neither damages nor security will be compromised.

**Robust:** Ability to handle the potential errors.

**Multi-threaded:** It enables us to create a program that can execute multiple tasks concurrently.

**Distributed:** Java maintains TCP/IP protocol and therefore suitable for distributed internet environments.

Q4. What is an object?

Ans. An object is an instance of class. We can declare any number of objects through a single class. Objects hold all the characteristic properties of a class.

**Object's Characteristics:**

**State:** Represents an object's data(values).

**Behavior:** It shows the functionality of an object.

**Identity:** Usually a distinct ID is used to implement an object's identification. External users cannot see the value of ID. JVM uses it internally to identify each object.

Q5. What is a class

Ans. A class is a collection of items with similar characteristics. It serves as a blueprint through which we can create objects. A class normally includes variables and methods.

Q6. Explain about the main() method in java?

Ans. **Syntax for main() method in java is:**

```
class Demo
{ public static void main(String args[ ])
{
//statements or code
}}
```

**public:** Specifies that the methods accessible from outside the class.

**void:** Specifies that the method does not return any result to the calling environment.

**Static:** Specifies that the method can be called without making the object of a class.

**(String args[ ]):** This means, while running a program at the command prompt we can pass some arguments to it, this array is used to hold the arguments provided at the command prompt.