WHAT IS JAVA ?

❖ Java is **O**bject **O**riented **P**rogramming language as well as Plateform.

❖ Java was developed by a team led by James Gosling at Sun Microsystems.

❖ Java is a first programming language which provide the concept of writing programs that can be executed using the web.

WHERE IS JAVA USED ?

According to the Sun , 3 billion devices run java.

There are many devices where Java is currently used.

❖ **Desktop Applications** - Acrobat reader, Media player, Antiviruses etc.

❖ **Web Applications** -   irctc.co.in , javatpoint.com etc.

❖ **Enterprise Application** – Banking Application, Business Application.

❖ Mobile.

❖ Embedded System.

❖ Games.

❖ Robotics.

FEATURES OF JAVA

- Java is **S**imple.
- Java is **O**bject **O**riented
- Java is **D**istributed
- Java is **A**rchitecture **N**eutral
- Java is **R**obust
- Java is **I**nterpreted and **C**ompiled
- Java is **S**ecure
- Java is **P**ortable
- Java is **M**ulti-Threaded

JAVA VIRTUAL MACHINE

❖ Java virtual machine is the like usual computer which translate high level language into machine language.

❖ Just like that Java virtual machine also translate Bytecode into machine language.

❖ JVM are available for many hardware and software Plateform.

WHAT IS OOP ?

❖ Object-oriented programming is a method of implementation.

❖ A language in which everything represent in the form of Object is called Object Oriented Programming Language.

❖ It not only makes the program less complex but also makes the software reuse feasible and possible.

❖ Java is not truly Object Oriented Programing Language

CONCEPTS OF OOP

- Object
- Class
- Encapsulation
- Inheritance
- Polymorphism
- Abstraction

GARBAGE COLLECTION

❖ Garbage collection is the mechanism that De allocate the memory of an object when it is no longer referenced by a variable.

❖ In C++, the memory of an Object is released by use of delete operator.

❖ Java virtual machine determines when to free up the memory of an object.

ADVANTAGES OF JAVA

❖ Java is simple language.

❖ Java does not support POINTERS.

❖ Java is first language in which programs can be executed using web.

❖ **W**rite **O**nce **R**un **A**nywhere (WORA).

DISADVANTAGES OF JAVA

❖ Slow Performance.

❖ No support for Low level programming.

❖ Poor features in Java.

❖ No control over Garbage Collection.