Metrics	C	C++	Java
Programming Paradigm	Procedural language	Object-Oriented Programming (OOP)	Pure Object Oriented
Origin	Based on assembly language	Based on C language	Based on C and C++
Developer	Dennis Ritchie in 1972	Bjarne Stroustrup in 1979	James Gosling in 1991
Translator	Compiler only	Compiler only	Interpreted language (Compiler + interpreter)
Platform Dependency	Platform Dependent	Platform Dependent	Platform Independent
Code execution	Direct	Direct	Executed by JVM (Java Virtual Machine)
Approach	Top-down approach	Bottom-up approach	Bottom-up approach
File generation	.exe files	.exe files	.class files
Pre-processor directives	Support header files (#include, #define)	Supported (#header, #define)	Use Packages (import)
keywords	Support 32 keywords	Supports 63 keywords	50 defined keywords
Datatypes (union, structure)	Supported	Supported	Not supported
Inheritance	No inheritance	Supported	Supported except Multiple inheritance
Overloading	No overloading	Support Function overloading (Polymorphism)	Operator overloading is not supported
Pointers	Supported	Supported	Not supported
Allocation	Use malloc, calloc	Use new, delete	Garbage collector
Exception Handling	Not supported	Supported	Supported
Templates	Not supported	Supported	Not supported
Destructors	No constructor neither destructor	Supported	Not supported
Multithreading/ Interfaces	Not supported	Not supported	Supported
Database connectivity	Not supported	Not supported	Supported
Storage Classes	Supported (auto, extern)	Supported (auto, extern)	Not supported

Sno.	C++	Java
1.	C++ is platform-dependent.	Java is platform-independent.
2.	C++ supports goto statement.	Java doesn't support goto statement.
3.	C++ supports Multiple inheritance.	Java doesn't support Multiple inheritance.
4.	C++ supports virtual keyword.	Java doesn't support virtual keyword.
5.	C++ supports friend keyword.	Java doesn't support friend keyword.
6.	C++ supports operator overloading.	Java doesn't support operator overloading.
7.	C++ supports destructor.	Java doesn't support destructor.
8.	C++ supports pointer.	Java doesn't support Pointer.(implicit pointer support)
9.	C++ uses compiler only.	Java uses compiler and interpreter both.
10.	C++ supports structures and unions.	Java doesn't support structures and unions.
11.	C++ is mainly used for system programming.	Java is mainly used for application programming. It is widely used in window, web-based, enterprise and mobile applications.

C	JAVA
It is procedural Language	It is Object Oriented Language
It is compiled	It is interpreted
Error crashes in C	Exception Handling in JAVA
C supports preprocessors	It does not support preprocessors.
It does not support Overloading	It supports overloading
User based Memory Management	Memory Management
It uses pointers	No use of pointers
Top down approach	Bottom Up approach
It is low level Language	It is high level language
Default members are public	Default members are private
It is not portable	It is portable
It is platform dependent	It is platform independent
It supports structure and union	It does not support structure and union
Manual object management	It has garbage collector
It supports go to statement	It does not supports go to statement
It does not support threads	It support threads
It supports multiple inheritance	It does not support multiple inheritance
It supports call by value and call by	It supports only call by value