1. **Explain JDK, JRE and JVM?**

**JVM (Java Virtual Machine): -**

It is an abstract machine. It is a specification that provides runtime environment in which java bytecode can be executed.

JVMs are available for many hardware and software platforms (i.e. JVM is platform dependent).

**JRE (Java Runtime Environment): -**

It is also written as Java RTE. The Java Runtime Environment is a set of software tools which are used for developing Java applications. It is used to provide the runtime environment. It is the implementation of JVM.

**JDK (Java Development Kit): -**

The Java Development Kit (JDK) is a software development environment which is used to develop Java applications and applets. It physically exists. It contains JRE + development tools.

1. **Why Java is platform independent?**

Java is platform independent just because of Bytecode (i.e. Bytecode is the machine understandable code of the JVM (Java Virtual Machine)).

By using Bytecode execution java proves it is a platform independent language.  
Java is platform independent language (In simple terms we can run (.class file) on any platform. Behaviour will be same (on LINUX, WINDOWS & MAC)

1. **What is JVM and is it platform independent?**

Java Virtual Machine is an abstract machine. It is a specification that provides runtime environment in which java bytecode can be executed. JVMs are available for many hardware and software platforms (i.e. JVM is platform dependent).

The **JVM** is not platform independent. Java Virtual Machine (JVM) provides the environment to execute the java file (. Class file). So at the end it's depends on our **kernel**, and kernel is differ from OS (Operating System) to OS. The JVM is used to both translate the **bytecode** into the machine language for a particular computer, and actually execute the corresponding **machine-language** instructions as well. Without the JVM, you can’t run a Java application.

1. **Can we have multiple public classes in a java source file?**
2. Yes, it can have multiple classes in one file (.java file). Only condition is that can have only one public class in a .JAVA file and name of the file should be same as the name of class. Once compiled, such file produces multiple .class files for each of the classes present in the .java file.
3. It can have one class inside other class, these classes are called inner classes or nested classes in JAVA.