1.What is the difference between JDK and JRE?

JDK **(Java Development Kit):**  
It is used for developing Java applications. It includes **JRE + development tools** .

**JRE (Java Runtime Environment):**  
It is used to run Java applications. It includes **JVM + libraries** but does not have development tools.

2. What is Java Virtual Machine (JVM)?

JVM is an **abstract machine** that provides a runtime environment in which Java bytecode can be executed.

It is **platform-**  .

3. What are the different types of memory areas allocated by JVM?

**Method Area**

**Heap Area**

**Stack Area**

**Program Counter Register**

**Native Method Stack**

4. What is JIT compiler?

**JIT (Just-In-Time)**

**It is compiler that**  is part of JVM that improves performance by compiling bytecode into native machine code **at runtime**.  
  
5. How Java platform is different from other platforms?

Java is a **platform-independent language** because programs are compiled into **bytecode**

This bytecode runs on **JVM**, making Java portable across operating systems.

Other languages like C/C++ compile directly to machine code, which is platform-dependent.

6. Why people say that Java is ‘write once and run anywhere’ language?

‘write once and run anywhere’ language

Because Java code is compiled into **bytecode**, which can run on any system that has a **JVM** installed.

7. How does ClassLoader work in Java?

8. Do you think ‘main’ used for main method is a keyword in Java?

**No**, main is **not a keyword**.

It is just the name of the method that JVM looks for as the starting point of a program.  
  
9. Can we write main method as public void static instead of public static void?

**No ,because in Java the order of modifiers matters.**