**Q1.What is the difference between Compiler and Interpreter**

**Ans.** Compiler 🡪 It is a software which takes source code(HLL) as the input and generates MLL code as the output.

To convert the HLL code to MLL code compiler will scan the HLL code only once.

Interpreter 🡪 It is a software which takes source code(HLL) as the input and generates MLL code as the output. To convert the HLL code to MLL code interpreter will scan the HLL code multiple times(depends on the instructions).

**Q2.What is the difference between JDK, JRE, and JVM?**

**Ans.** JDK stands for Java Development kit, it provides libraries and the required files to run our java programs => JDK :: JRE + JVM

JRE :: Java Run Time Environment, It provides suitable environment to run our java program.

JVM :: Java Virtual Machine, It is responsible to run our java programs on the basis of Multi Threading.

**Q3.How many types of memory areas are allocated by JVM?**

**Ans.** Heap: The heap is the main memory area used for dynamic memory allocation.

Method Area: The method area (also known as the non-heap memory or the permanent generation in older JVM versions) is used to store class structures, method information, and constant pool data.

Program Counter (PC) Registers: Each JVM thread has its own program counter, which keeps track of the current executed byte code instruction.

**Q4.What is JIT compiler?**

**Q5.What are the various access specifiers in Java?**

**Q6.What is a compiler in Java?**

**Q7.Explain the types of variables in Java?**

**Q8.What are the Datatypes in Java?**

**Q9.What are the identifiers in java?**

**Q10.Explain the architecture of JVM**