

JVM, JRE, JDK, JIT MCQs:

1. Which component is used to compile, debug and execute java program?

- a) JVM
- b) JDK
- c) JIT
- d) JRE

2. Which component is responsible to run java program?

- a) JVM
- b) JDK
- c) JIT
- d) JRE

3. Which component is responsible for converting bytecode into machine specific code?

- a) JVM
- b) JDK
- c) JIT
- d) JRE

4. What is the purpose of JRE in the Java environment?

- a) It includes the Java compiler for compiling source code.
- b) It provides the runtime environment for executing Java applications.
- c) It contains development tools for writing and testing Java programs.
- d) It manages the execution of Java applets in web browsers.

5. Which part of the JDK includes tools for compiling Java source code into bytecode?

- a) JRE
- b) JVM
- c) JAR
- d) javac

6. What is the primary role of JIT compiler in the Java environment?

- a) It compiles Java source code into bytecode.
- b) It compiles bytecode into native machine code for faster execution of JVM.
- c) It manages memory allocation for Java objects.
- d) It provides a runtime environment for executing Java applications.

7. Which component of the Java environment is responsible for optimizing and translating Java bytecode into native machine code to provide faster execution?

- a) JVM
- b) JRE
- c) JIT
- d) JDK

8. What is the primary purpose of the Java Virtual Machine (JVM)?

- a) To compile Java source code into bytecode
- b) To execute Java bytecode and manage memory
- c) To provide a development environment for writing Java code
- d) To provide a graphical user interface for Java applications

9. What is the role of the Java Development Kit (JDK)?

- a) It is responsible for running Java applications.
- b) It provides tools for developing, compiling, debugging and executing a Java programs.
- c) It manages memory allocation for Java objects.
- d) It executes Java bytecode directly on the CPU

10. The JVM is an example of:

- a) An interpreter
- b) A compiler
- c) Both an interpreter and a compiler
- d) None of the above.

11. What is included in the Java Runtime Environment (JRE)?

- a) JVM only
- b) JVM and JIT
- c) JVM, JIT, and development tools
- d) JVM and libraries required for running Java applications

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