

## **Platform Independency MCQs:**

**1. The Java programming language achieves platform independence primarily through the use of:**

- a) Native machine code generation
- b) Compiler optimizations
- c) Bytecode and the Java Virtual Machine (JVM)
- d) Platform-specific libraries

**2. Which of the following statements about Java's platform independence is correct?**

- a) Java code can only run on Windows-based operating systems.
- b) Java bytecode is directly executed by the CPU of the host machine.
- c) Java code is compiled into platform-specific machine code.
- d) Java programs are compiled into bytecode, which is interpreted by the Java Virtual Machine (JVM) on different platforms.

**3. Which component of the Java architecture is responsible for executing compiled Java bytecode on different platforms?**

- a) Java Compiler
- b) Java Development Kit (JDK)
- c) Java Runtime Environment (JRE)
- d) Java Virtual Machine (JVM)

**4. Java bytecode is:**

- a) Source code that is written by developers.
- b) Machine code that is directly executed by the CPU.
- c) An intermediate code which is generated by java compiler
- d) A high-level programming language.

**5. Java's "Write Once, Run Anywhere" slogan refers to:**

- a) Writing code once and executing it only on Windows systems.
- b) Writing code once and executing it on any platform with a compatible JVM.
- c) Writing code once and converting it into platform-specific executables.
- d) Writing code once and running it without the need for compilation.

**6. Which type of error is detected by the Java compiler during the compilation process?**

- a) Syntax error
- b) Runtime error
- c) Logical error
- d) Linker error

**7. Which type of error occurs due to incorrect programming logic and can result in unexpected behaviour at Runtime?**

- a) Syntax error
- b) compilation error
- c) Logical error
- d) Linker error

**8. What is a "syntax error" in Java?**

- a) An error that occurs during runtime execution
- b) An error that is detected by the compiler due to incorrect code structure
- c) An error that occurs when accessing an array element
- d) An error related to memory allocation

**9. Which type of error occurs when a program tries to divide a number by zero?**

- a) Syntax error
- b) Runtime error
- c) Compile time error
- d) Linker error

**10. Which of the following statements is true regarding runtime errors in Java?**

- a) They are detected by the compiler during compilation.
- b) They occur due to incorrect code structure.
- c) They are primarily logic errors that produce incorrect results.
- d) They are exceptions that occur during program execution.

**11. Which of the following statements is true regarding JVM?**

- a) JVM is same for all operating system
- b) JVM generates Byte code
- c) JVM is different for different operating system
- d) none

**12. Which component converts byte code in low level code?**

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

**13. What is true about java?**

- a) Java is only interpreted language
- b) Java is only compiled language
- c) Java is both compiled and interpreted language
- d) none

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