

Part A

Briefly elaborate any two distinguishing characteristics of Java with examples (illustrate with figures if necessary).

Answer:

1. Java is a portable language. The sizes of primitive data types are specified. For example, in Java, an integer is always 32-bit. But in C/C++, an int can be 16-bit, 32-bit or 64-bit. It depends on the compiler and the operating system.
2. Java is an architecture-neutral language. The compiler can generate an architecture-neutral file (.class file). This file that has nothing to do with a particular computer architecture can only run in the Java Virtual Machine. The Java Virtual Machine can run on different operating systems.