■ Java MCQs – Answer Key ■

Q1) Which method is the entry point of a Java program?

a) start()
b) main()
c) run()
d) execute()
■ Answer: b) main()

Q2) Which operator is used for string concatenation in Java?

a) +
b) &
c) concat
d) . (dot)
■ Answer: a) +

Q3) What is the size of a boolean data type in Java?

a) 1 bit (JVM dependent)
b) 8 bits
c) 16 bits
d) 32 bits
■ Answer: a) 1 bit (JVM dependent)

Q4) Which of the following allows Java to be 'Write Once, Run Anywhere'?

a) JDK
b) JVM
c) Compiler
d) OS
■ Answer: b) JVM

Q5) Which of the following contains tools for developing and running Java programs?

a) JVM
b) JRE
c) JDK
d) Bytecode
■ Answer: c) JDK

Q6) Which of the following is responsible for executing Java bytecode?

a) JDK
b) JVM
c) JRE
d) Compiler
■ Answer: b) JVM

Q7) Which component contains JVM and core libraries but no development tools?

a) JDK
b) JRE
c) Bytecode Verifier
d) IDE
■ Answer: b) JRE

Q8) What is true about JDK?

a) It includes JRE + development tools
b) It is only an interpreter
c) It executes bytecode directly
d) It runs only compiled languages
■ Answer: a) It includes JRE + development tools

Q9) What is included in JRE?

a) JVM only
b) JVM + libraries
c) Compiler + JVM
d) JVM + libraries + compiler
■ Answer: b) JVM + libraries

Q10) Which feature of Java ensures platform independence?

a) Inheritance
b) Bytecode + JVM
c) Multithreading
d) Encapsulation
■ Answer: b) Bytecode + JVM

Q11) Which part of JVM converts bytecode into machine code at runtime?

a) ClassLoader
b) JIT Compiler
c) Garbage Collector
d) Interpreter only
■ Answer: b) JIT Compiler

Q12) Platform independence is possible in Java because:

a) Java runs only on Linux
b) Java compiler generates bytecode instead of machine code
c) JVM executes machine code directly
d) Java doesn't use classes
■ Answer: b) Java compiler generates bytecode instead of machine code

Q13) What allows Java to run on multiple devices (PC, mobile, embedded)?

a) Different compilers
b) Different JVM implementations
c) Different source code
d) Different IDEs
■ Answer: b) Different JVM implementations

Q14) Correct order of Java execution is:

a) Source Code → Machine Code → JVM
b) Source Code → Bytecode → JVM → Machine Code
c) Source Code → OS → JVM
d) Source Code → Binary → OS
■ Answer: b) Source Code → Bytecode → JVM → Machine Code

Q15) The byte code (.class file) generated by java compiler depends upon:

a) File name of Java program
b) Class name of Java program
c) Operating System implementation
d) None of these

■ Answer: b) Class name of Java program

Q16) Why is the main method static?

a) So JVM can call it without creating an object
b) To save memory
c) To improve speed
d) To support OOP concepts

■ Answer: a) So JVM can call it without creating an object

Q17) Which statement is used to print output in Java?

a) System.out.print()
b) System.out.println()
c) System.out.printf()
d) All of the above

■ Answer: d) All of the above

Q18) If we write System.out.print('Hello'); instead of println:

a) Compilation error
b) Runtime error
c) Output will not display
d) Output will be printed without moving to the next line

■ Answer: d) Output will be printed without moving to the next line

Q19) Which keyword is used to define a class in Java?

a) struct
b) class
c) def
d) function

■ Answer: b) class

Q20) Output of code: System.out.print('Hi'); System.out.print('Java');

a) Hi Java
b) Hi Java
c) HiJava
d) Compilation error

■ Answer: c) HiJava

Q21) Output of code: System.out.println('Sum = ' + 10 + 20);

a) Sum = 30
b) Sum = 1020
c) 30
d) Error

■ Answer: b) Sum = 1020

Q22) Output of code: System.out.println(10 + 20 + 'Sum');

a) 1020Sum
b) 30Sum

c) Sum30
d) Error
■ Answer: b) 30Sum

Q23) Why is main() method public in Java?

a) So it can be inherited
b) To allow JVM to access it from anywhere
c) To restrict access
d) To improve speed
■ Answer: b) To allow JVM to access it from anywhere

Q24) What is the correct return type of main() method?

a) int
b) String
c) void
d) Object
■ Answer: c) void

Q25) What happens if the main() method is not declared as public?

a) Compilation error
b) Runtime error (JVM cannot call it)
c) It still runs normally
d) It will be ignored by JVM
■ Answer: b) Runtime error (JVM cannot call it)

Q26) What happens if we remove static from the main method?

a) Compiles but won't run (JVM can't call non-static without object)
b) Runs normally
c) Gives compilation error
d) Runs but slower
■ Answer: a) Compiles but won't run (JVM can't call non-static without object)

Q27) The main() method in Java is:

a) A predefined method like println()
b) A user-defined method with a predefined name
c) A constructor
d) A library function
■ Answer: b) A user-defined method with a predefined name

Q28) Which of these best describes main()?

a) Predefined method in JVM
b) Entry point defined by the programmer, recognized by JVM
c) Compiler-generated special method
d) Library function in JDK
■ Answer: b) Entry point defined by the programmer, recognized by JVM

Q29) Which data type is used to store decimal numbers?

a) int
b) float
c) char
d) boolean

■ Answer: b) float

Q30) Which data type takes 1 byte of memory?

a) int
b) char
c) byte
d) float

■ Answer: c) byte