1. What is machine-level language also known as?

a) Binary code

b) Assembly language

**c) Low-level language**

d) High-level language

2. What consists of instructions directly executed by a computer's hardware?

**a) Machine code**

b) Assembly code

c) Bytecode

d) Source code

3. What is an advantage of machine-level programming language?

**a) Portability**

b) Direct control over hardware

c) Easy readability

d) High-level abstraction

4. What is a disadvantage of machine-level programming language?

a) Easy for humans to read and write

b) Tied to specific hardware architecture

**c) Requires deep understanding of computer architecture**

d) Highly portable

5. What is one step above machine code in programming languages?

a) Machine-level language

**b) Assembly language**

c) High-level language

d) Scripting language

6. What do low-level programming languages use to represent operations and memory addresses?

**a) Binary digits**

b) Mnemonics and symbols

c) High-level abstractions

d) English-like syntax

7. Which type of programming language provides a balance between low-level and high-level languages?

a) Machine-level language

b) Low-level language

**c) Mid-level language**

d) High-level language

8. In which language are instructions represented using mnemonics like MOV for move and ADD for addition?

a) Java

b) Python

**c) x86 Assembly**

d) COBOL

9. What type of programming languages provide powerful constructs for solving complex problems?

a) Machine-level language

b) Low-level language

**c) High-level language**

d) Assembly language

10. What is an advantage of high-level programming languages?

a) Direct control over hardware

**b) Portability across platforms**

c) Closer to machine code

d) Efficient use of system resources

11. Which language introduced structured programming concepts like loops and blocks?

a) Fortran

b) COBOL

**c) ALGOL**

d) LISP

12. Which programming language is known for its readability and English like syntax?

a) Fortran

**b) COBOL**

c) LISP

d) ALGOL

13. Who were the creators of the Java programming language?

a) Bill Gates and Paul Allen

b) Steve Jobs and Steve Wozniak

**c) James Gosling and Mike Sheridan**

d) Linus Torvalds and Richard Stallman

14. When was Java officially announced to the public?

a) 1985

**b) 1995**

c) 2005

d) 2015

15. What was the original name of the language before it was renamed to Java?

**a) Oak**

b) Pine

c) Maple

d) Cedar

16. What is the slogan that highlights Java's platform independence?

**a) Write Once, Run Anywhere (WORA)**

b) Code Once, Execute Anywhere (COEA)

c) Compile Once, Deploy Anywhere (CODA)

d) Execute Once, Deploy Anywhere (EODA)

17. What component is required to execute Java bytecode on a specific platform?

a) Java Compiler

b) Java Development Kit (JDK)

**c) Java Virtual Machine (JVM)**

d) Java Runtime Environment (JRE)

18. What feature of Java allows it to be platform independent?

a) Just In Time (JIT) Compilation

**b) Write Once, Run Anywhere (WORA)**

c) Direct hardware control

d) High performance optimization

19. Which company acquired Sun Microsystems, taking over the development of Java?

a) IBM

b) Microsoft

**c) Oracle Corporation**

d) Google

20. What consists of sequences of binary digits (0s and 1s) that directly control the computer's hardware?

a) Assembly language

b) High-level language

**c) Machine code**

d) Bytecode

21. Which programming language is one step above machine code?

a) High-level language

**b) Assembly language**

c) Low-level language

d) Scripting language

22. What is a major disadvantage of machine-level programming language?

a) Direct control over hardware

b) Easy readability

**c) Highly specific to architecture**

d) Portability across platforms

23. Which programming language provides more human-readable representation of computer instructions using mnemonics and symbols?

a) Machine code

**b) Assembly language**

c) Low-level language

d) High-level language

24. Which type of programming language is closer to hardware compared to high-level languages?

a) High-level language

**b) Machine code**

c) Low-level language

d) Assembly language

25. What do low-level programming languages like assembly use to represent operations and memory addresses?

**a) Binary digits**

b) Mnemonics and symbols

c) English-like syntax

d) High-level abstractions

26. Which type of language offers higher-level abstractions while still allowing direct access to system resources?

a) High-level language

b) Machine code

**c) Mid-level language**

d) Low-level language

27. Which language is known for its use of mnemonics like MOV for move and ADD for addition?

a) Java

b) Python

**c) x86 Assembly**

d) COBOL

28. Which type of programming languages are designed to be more abstract and user-friendly?

**a) High-level language**

b) Low-level language

c) Machine code

d) Assembly language

29. What is a key advantage of high-level programming languages?

a) Direct control over hardware

**b) Portability across platforms**

c) Closer to machine code

d) Efficient use of system resources

30. Which language introduced structured programming concepts like loops and blocks?

a) Fortran

b) COBOL

**c) ALGOL**

d) LISP

31. What is one of the characteristics of COBOL programming language?

**a) Readability and English-like syntax**

b) Designed for artificial intelligence research

c) Known for its use in scientific computing

d) Supports dynamic typing

32. Who were the creators of the Java programming language?

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**c) James Gosling and Mike Sheridan**

d) Linus Torvalds and Richard Stallman

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c) Direct hardware control

d) High performance optimization

38. Which company acquired Sun Microsystems, taking over the development of Java?

a) IBM

b) Microsoft

**c) Oracle Corporation**

d) Google

39. What was the original purpose of the "Green Project" initiated by Sun Microsystems?

**a) To develop a programming language for interactive television**

b) To create a new operating system

c) To design a graphics processing unit

d) To develop a mobile application platform

40. What is machine-level language also known as?

a) Binary code

b) Assembly language

**c) Low-level language**

d) High-level language

41. What is an advantage of machine-level programming language?

**a) Portability**

b) Direct control over hardware

c) Easy readability

d) High-level abstraction

42. What is a disadvantage of machine-level programming language?

a) Easy for humans to read and write

b) Tied to specific hardware architecture

**c) Requires deep understanding of computer architecture**

d) Highly portable

43. What is one step above machine code in programming languages?

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**b) Assembly language**

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d) Scripting language

44. What do low-level programming languages use to represent operations and memory addresses?

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b) Mnemonics and symbols

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d) English-like syntax

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**c) Mid-level language**

d) Low-level language

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b) Python

**c) x86 Assembly**

d) COBOL

47. What type of programming languages provide powerful constructs for solving complex problems?

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b) Low-level language

**c) High-level language**

d) Assembly language

48. What is an advantage of high-level programming languages?

a) Direct control over hardware

**b) Portability across platforms**

c) Closer to machine code

d) Efficient use of system resources

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