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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Java and C++ are examples of pseudocode languages.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |

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| 2. Input and output enable the computing agent to communicate with the outside world.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |

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| 3. The if/then/else operation allows you to select exactly one of three alternatives.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |

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| 4. Having an infinite loop in an algorithm is an error.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |

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| 5. Once an algorithm has been developed, it may itself be used in the construction of other algorithms.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |

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| 6. Pseudocode is a formal language with rigidly standardized syntactic rules and regulations. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   |  |  | | --- | --- | |  |  | |  |  | |

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| 7. \_\_\_\_ is an example of a natural language.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | C | b. | Java | |  | c. | English | d. | Perl |  |  |  | | --- | --- | |  |  | |  |  | |

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| 8. In the line of code, “Set the value of Area to length\*width”, “Area” is a \_\_\_\_.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | value | b. | variable | |  | c. | constant | d. | primitive |  |  |  | | --- | --- | |  |  | |  |  | |

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| 9. A(n) \_\_\_\_ is a named storage location that can hold a data value.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | expression | b. | variable | |  | c. | computation | d. | constant |  |  |  | | --- | --- | |  |  | |  |  | |

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| 10. \_\_\_\_ operations provide the computing agent with data values from the outside world that it may then use in later instructions.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Ingoing | b. | Outgoing | |  | c. | Input | d. | Output |  |  |  | | --- | --- | |  |  | |  |  | |

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| 11. \_\_\_\_ operations send results from the computing agent to the outside world.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Input | b. | Put | |  | c. | Send | d. | Output |  |  |  | | --- | --- | |  |  | |  |  | |

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| 12. Together, conditional and iterative operations are called \_\_\_\_ operations.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | sequential | b. | control | |  | c. | hierarchical | d. | dynamic |  |  |  | | --- | --- | |  |  | |  |  | |

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| 13. \_\_\_\_ statements are the “question-asking” operations of an algorithm.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Primitive | b. | Iterative | |  | c. | Sequential | d. | Conditional |  |  |  | | --- | --- | |  |  | |  |  | |

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| 14. A \_\_\_\_ is the repetition of a block of instructions.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | cycle | b. | nucleus | |  | c. | matrix | d. | loop |  |  |  | | --- | --- | |  |  | |  |  | |

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| 15. An algorithm can fall into an infinite loop when \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | the input operations are missing | |  | b. | the algorithm uses more than one loop | |  | c. | the output operations are missing | |  | d. | the continuation condition of the loop never becomes false |  |  |  | | --- | --- | |  |  | |  |  | |

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| 16. “Print the value of *product*” is an example of a(n) \_\_\_\_ operation.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | sequential | b. | conditional | |  | c. | input | d. | output |  |  |  | | --- | --- | |  |  | |  |  | |

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| 17. A(n) \_\_\_\_ is a collection of useful, prewritten algorithms.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | primitive | b. | binary | |  | c. | set | d. | library |  |  |  | | --- | --- | |  |  | |  |  | |

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| 18. In order to implement a “find” functionality in a word processor, one would have to design a \_\_\_\_ algorithm.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | pattern matching | b. | natural language | |  | c. | sequential | d. | do-while |  |  |  | | --- | --- | |  |  | |  |  | |

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| 19. Briefly describe what pseudocode is and is not. |

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| 20. Briefly define the concept of iteration |

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| 21. Information is stored in the memory of a computer using the decimal numbering system.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 22. Explain what an arithmetic overflow is and what its significance in computer science is. |

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| 23. In a direct access storage device, every unit of information has a unique \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | |  |  | |  |  | |  |  | |

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| 24. The acronym \_\_\_\_ is frequently used to refer to the memory unit of a computer.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ROM | b. | CD | |  | c. | MDR | d. | RAM |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 25. Machine language is a high-level programming language.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |

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| 26. C++ and Java are examples of \_\_\_\_ languages.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | low-level programming | b. | high-level programming | |  | c. | machine | d. | assembly |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 27. A(n) \_\_\_\_ operation involves the comparison of values and the subsequent use of the outcome to decide what to do next.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | iterative | b. | conditional | |  | c. | sequential | d. | transformer |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 28. What is the single most important piece of system software on the computer? Discuss its function, and discuss at length its software packages that handle the requests of other programs. |
| 29. A LAN connects devices that are not in close proximity but rather are across town, across the country, or across the ocean. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   |  |  | | --- | --- | |  |  | |  |  | |
| 30. \_\_\_\_ is a low-power wireless standard used to communicate between devices located quite close to each other.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Bluetooth | b. | Wi-Fi | |  | c. | Bluenote | d. | Redtooth |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 31. A \_\_\_\_ connects hardware devices such as computers, printers, and storage devices that are all in close proximity.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | metro area network | b. | local area network | |  | c. | wide area network | d. | proximity network |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 32. In assembly language, the programmer need not manage the details of the movement of data items within memory.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 33. Machine language can use the notation --, //, or # to denote a program comment.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |

34. List four disadvantages of assembly language.

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| 35. List four expectations of a program written in a high-level language. |
| 36. Writing all computer programs in the same programming language would be more efficient because all languages meet essentially the same needs.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |   Explain your answer |
| 37. C++ is in fact a “subset” of C, meaning that all of the C++ language is part of C.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |   Explain your answer |
| 38. All musicians are naturally opposed to music file sharing.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 39. A(n) \_\_\_\_ is someone who breaks into computer systems, launches Internet worms and viruses, or perpetrates other dubious computer-related vandalism.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Encryption | b. | PGP | |  | c. | Utilitarian | d. | hacker |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |
| 40. Define cyberbullying. |
| 41. \_\_\_\_ is the branch of computer science that explores techniques for incorporating aspects of intelligence into computer systems.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Internet technology | b. | Neural networks | |  | c. | Database technology | d. | Artificial intelligence |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |

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| 42. The philosopher \_\_\_\_ was known to say “never treat a fellow human merely as a means to an end.”   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Descartes | b. | Turing | |  | c. | Aristotle | d. | Kant |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |

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| 43. Respond to the observation that computer science is the study of how to write computer programs. Include an example to illustrate your argument. |
| 44. List at least six of the recent developments in computer systems and the significance of these developments. |