|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. A \_\_\_\_ is an input device.​   |  |  |  | | --- | --- | --- | |  | a. | ​scanner | |  | b. | ​keyboard | |  | c. | ​digital camera | |  | d. | ​printer |  |  |  | | --- | --- | | *ANSWER:* | a, b, c | | *POINTS:* | 1 | | *REFERENCES:* | 3 | | *QUESTION TYPE:* | Multiple Response | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. An application might allow data to be entered with a \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​scanner | |  | b. | ​mouse | |  | c. | ​digital camera | |  | d. | ​video camera |  |  |  | | --- | --- | | *ANSWER:* | a, b, c, d | | *POINTS:* | 1 | | *REFERENCES:* | 9 | | *QUESTION TYPE:* | Multiple Response | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. A \_\_\_\_ is an output device.​   |  |  |  | | --- | --- | --- | |  | a. | ​mouse | |  | b. | ​smartphone screen | |  | c. | ​keyboard | |  | d. | ​printer |  |  |  | | --- | --- | | *ANSWER:* | b, d | | *POINTS:* | 1 | | *REFERENCES:* | 9 | | *QUESTION TYPE:* | Multiple Response | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. A database is a collection of data organized in a manner that allows \_\_\_\_ of that data.​   |  |  |  | | --- | --- | --- | |  | a. | ​scanning | |  | b. | ​retrieval | |  | c. | ​access | |  | d. | ​use |  |  |  | | --- | --- | | *ANSWER:* | b, c, d | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | Multiple Response | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. Buttons for frequently used commands such as \_\_\_\_ are found on the Standard toolbar.​   |  |  |  | | --- | --- | --- | |  | a. | ​Open Project | |  | b. | ​Cut | |  | c. | ​Save | |  | d. | ​Paste |  |  |  | | --- | --- | | *ANSWER:* | a, b, c, d | | *POINTS:* | 1 | | *REFERENCES:* | 17 | | *QUESTION TYPE:* | Multiple Response | |

|  |
| --- |
| ​ |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. As shown in the accompanying figure, \_\_\_\_ the physical equipment associated with a computer.​   |  |  |  | | --- | --- | --- | |  | a. | ​computer hardware is | |  | b. | ​computer software is | |  | c. | ​computer programs are | |  | d. | ​computer cables are |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 3 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102 | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. Both the program and the data must be placed in the \_\_\_\_ of computers like the system unit shown in the accompanying figure in order for the computer to perform activities as directed by the program.​   |  |  |  | | --- | --- | --- | |  | a. | ​read only memory (ROM) | |  | b. | ​central processing unit (CPU) | |  | c. | ​CD-ROM | |  | d. | ​random access memory (RAM) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 4 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102 | |

|  |
| --- |
| ​ |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. Which item in the accompanying figure is a storage device?​   |  |  |  | | --- | --- | --- | |  | a. | ​1 | |  | b. | ​2 | |  | c. | ​3 | |  | d. | ​4 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 3 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. Which item in the accompanying figure is an input device?​   |  |  |  | | --- | --- | --- | |  | a. | ​1 | |  | b. | ​2 | |  | c. | ​3 | |  | d. | ​4 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 3 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. Which item in the accompanying figure is a processing device?​   |  |  |  | | --- | --- | --- | |  | a. | ​1 | |  | b. | ​2 | |  | c. | ​3 | |  | d. | ​5 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 3 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. In which order do most programs follow these general steps?​   |  |  |  | | --- | --- | --- | |  | a. | ​process data, accept input data, create output data | |  | b. | ​create output data, accept input data, process data | |  | c. | ​accept input data, process data, create output data | |  | d. | ​accept input data, create output data, process data |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 4 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. Data is said to be \_\_\_\_ if it remains available after the computer power is turned off.​   |  |  |  | | --- | --- | --- | |  | a. | ​persistent | |  | b. | ​volatile | |  | c. | ​fragmented | |  | d. | ​temporary |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 4 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. Most Visual Basic 2015 programs are \_\_\_\_ programs that communicate with the user through a graphical user interface (GUI).​   |  |  |  | | --- | --- | --- | |  | a. | ​GUI-based | |  | b. | ​indexed | |  | c. | ​event-driven | |  | d. | ​persistent |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0102a | |

|  |
| --- |
| ​ |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. As shown in the accompanying figure, a(n) \_\_\_\_ consists of a window containing a variety of objects that can be displayed on various devices.​   |  |  |  | | --- | --- | --- | |  | a. | ​ROM | |  | b. | ​GUI | |  | c. | ​CPU | |  | d. | ​ERD |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0106 | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. Tapping or clicking a button like the one labeled Reset Window in the accompanying figure when a Visual Basic program is running triggers a(n) \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​index | |  | b. | ​radical | |  | c. | ​baseline | |  | d. | ​event |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | VB0106 | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. Users employ GUI objects to \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​select options | |  | b. | ​enter data | |  | c. | ​cause events to occur | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. Addition and subtraction are considered to be \_\_\_\_ operations performed by a computer.​   |  |  |  | | --- | --- | --- | |  | a. | ​input | |  | b. | ​comparing | |  | c. | ​arithmetic | |  | d. | ​output |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 10 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. It is the ability of a computer to perform \_\_\_\_ operations that separates it from other types of calculating devices.​   |  |  |  | | --- | --- | --- | |  | a. | ​arithmetic | |  | b. | ​input | |  | c. | ​logical | |  | d. | ​output |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 11 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. A computer uses \_\_\_\_ operations to compare two values to see if they are equal to each other.​   |  |  |  | | --- | --- | --- | |  | a. | ​arithmetic | |  | b. | ​logical | |  | c. | ​grouping | |  | d. | ​sorting |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 12 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. A program can direct a computer to take alternative actions based on the results of \_\_\_\_ comparisons.​   |  |  |  | | --- | --- | --- | |  | a. | ​arithmetic | |  | b. | ​grouping | |  | c. | ​logical | |  | d. | ​sorting |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 12 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. A \_\_\_\_ is a collection of data organized in a manner that allows access, retrieval, and use of that data.​   |  |  |  | | --- | --- | --- | |  | a. | ​file | |  | b. | ​folder | |  | c. | ​program | |  | d. | ​database |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. The \_\_\_\_ of a programming language is the set of usage rules for that language.​   |  |  |  | | --- | --- | --- | |  | a. | ​logic | |  | b. | ​semantics | |  | c. | ​syntax | |  | d. | ​GUI |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. A(n) \_\_\_\_ is a set of services and tools that enable a developer to code, test, and implement a single program or series of programs that comprise an application.​   |  |  |  | | --- | --- | --- | |  | a. | ​integrated development environment (IDE) | |  | b. | ​graphical user interface (GUI) | |  | c. | ​development studio | |  | d. | ​Microsoft Intermediate Language (MSIL) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 17 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. In the Visual Studio IDE, the \_\_\_\_ identifies the window and the application open in the window.​   |  |  |  | | --- | --- | --- | |  | a. | ​title bar | |  | b. | ​menu bar | |  | c. | ​index bar | |  | d. | ​property |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 17 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. The \_\_\_\_ contains a list of commands that allow you to create, edit, save, print, test, and run a Visual Basic program.​   |  |  |  | | --- | --- | --- | |  | a. | ​menu bar | |  | b. | ​toolbar | |  | c. | ​Toolbox | |  | d. | ​Properties window |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 17 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. The \_\_\_\_ of Visual Studio 2015 contains buttons for commands that are frequently used, such as Open Project, Save, Cut, Copy, Paste, and Undo.​   |  |  |  | | --- | --- | --- | |  | a. | ​menu bar | |  | b. | ​Standard toolbar | |  | c. | ​Toolbox | |  | d. | ​Properties window |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 17 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. The \_\_\_\_ contains the .NET components that you can use to develop the GUI for a program.​   |  |  |  | | --- | --- | --- | |  | a. | ​menu bar | |  | b. | ​toolbar | |  | c. | ​Toolbox | |  | d. | ​Properties window |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28. Each control has \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​indices | |  | b. | ​properties | |  | c. | ​IDEs | |  | d. | ​tools |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. A button or a text box are examples of objects, also called \_\_\_\_, that are a visible part of the GUI.​   |  |  |  | | --- | --- | --- | |  | a. | ​indices | |  | b. | ​classes | |  | c. | ​libraries | |  | d. | ​controls |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. A \_\_\_\_ is an item that is a visible part of a GUI.​   |  |  |  | | --- | --- | --- | |  | a. | ​property | |  | b. | ​control | |  | c. | ​class | |  | d. | ​library |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31. \_\_\_\_ are the characteristics of objects in Visual Basic.​   |  |  |  | | --- | --- | --- | |  | a. | ​Methods | |  | b. | ​Function | |  | c. | ​Identifiers | |  | d. | ​Properties |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32. The characteristics of GUI controls such as buttons and text boxes can be set using the \_\_\_\_ window in the Visual Studio IDE.​   |  |  |  | | --- | --- | --- | |  | a. | ​Characteristics | |  | b. | ​Attributes | |  | c. | ​Properties | |  | d. | ​Values |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 33. All of the following are Visual Studio Express 2015 products EXCEPT \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​Express for Web | |  | b. | ​Express for iPhone | |  | c. | ​Express for Windows Desktop | |  | d. | ​Team Foundation Server Express |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 34. \_\_\_\_ is a language that can be used in Visual Studio.​   |  |  |  | | --- | --- | --- | |  | a. | ​Fortran | |  | b. | ​Visual F# | |  | c. | ​Lisp | |  | d. | ​COBOL |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 19 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 35. One of the most widely used programming languages in the world is \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​Pascal | |  | b. | ​BASIC | |  | c. | ​Fortran | |  | d. | ​Visual Basic |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 19 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36. The \_\_\_\_ provides tools and processes developers can use to produce and run programs.​   |  |  |  | | --- | --- | --- | |  | a. | ​SQL Server Set | |  | b. | ​.NET Framework | |  | c. | ​Java Toolkit | |  | d. | ​both A and B |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 20 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37. All of the following are major features of the .NET Framework 4.6 EXCEPT \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​RAM | |  | b. | ​ADO.NET | |  | c. | ​the Common Language Runtime | |  | d. | ​ASP.NET 4.6 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 20 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 38. A class \_\_\_\_ is a collection of classes that can be made available for developers to use.​   |  |  |  | | --- | --- | --- | |  | a. | ​glossary | |  | b. | ​library | |  | c. | ​index | |  | d. | ​roster |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 39. The process of \_\_\_\_ is used to create an object from a class.​   |  |  |  | | --- | --- | --- | |  | a. | ​initialization | |  | b. | ​instantiation | |  | c. | ​objectification | |  | d. | ​classification |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 40. A set of prewritten classes called \_\_\_\_ allows you to access data stored in a database, for example.​   |  |  |  | | --- | --- | --- | |  | a. | ​ADO.NET | |  | b. | ​ASP.NET | |  | c. | ​RAD | |  | d. | ​CLR |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 22 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 41. The process of using prebuilt classes to make application development faster, easier, and more reliable is called \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​RAD | |  | b. | ​CAD | |  | c. | ​ARD | |  | d. | ​CLR |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 22 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 42. \_\_\_\_ computing is the connection of remote servers hosted on the Internet to store and process data, instead of storing the information locally on a personal computer or device.​   |  |  |  | | --- | --- | --- | |  | a. | ​Distance | |  | b. | ​Intangible | |  | c. | ​Indexed | |  | d. | ​Cloud |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 23 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 43. Translating programming statements into instructions that can be understood by the electronics of the computer is accomplished by a process called program \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​instantiation | |  | b. | ​compilation | |  | c. | ​factoring | |  | d. | ​indexing |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 23 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 44. The \_\_\_\_ reads the MSIL code and causes the instructions within the program to be executed.​   |  |  |  | | --- | --- | --- | |  | a. | ​CAD | |  | b. | ​RAD | |  | c. | ​CLR | |  | d. | ​ARD |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 24 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 45. A Web application runs on a web server and produces \_\_\_\_ code that is downloaded to a client computer.​   |  |  |  | | --- | --- | --- | |  | a. | ​XML | |  | b. | ​SQL | |  | c. | ​HTML5 | |  | d. | ​HTTP |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 26 | | *QUESTION TYPE:* | Multiple Choice | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46. A computer program on a mobile device or Windows 8 or Windows 10 computer is also called an app.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 2 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 47. Computer hardware will perform its tasks automatically, regardless of whether a software program is running or not.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 3 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 48. Many computer programs perform the following general steps: first accept input, then write output, and finally process the data, in that order.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 4 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 49. Saving, or storing, data refers to placing the data or software electronically on a storage medium.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 4 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 50. In order for the computer to execute a program, both the program and the data must be placed in the computer’s random access memory (RAM).​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 4 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 51. Computer programs can be written in standard English.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 5 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 52. A programming language is a set of words and symbols that can be interpreted by special computer software to create instructions that can be executed by a computer.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 5 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 53. A graphical user interface (GUI) is a special device for communicating with a user.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 54. Tapping or clicking a button on a program screen causes an event to occur.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 55. A computer program can perform addition, subtraction, multiplication, and division operations on numeric data.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 10 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 56. Computers can compare numbers, letters of the alphabet, and special characters.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 11 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 57. A logical operation can be used to determine if two values are equal, if one value is greater than the other, or if one value is less than the other.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 12 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 58. If you write a computer program, and want to execute the same program many times without rewriting it each time, you must save the program on disk.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 15 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 59. A program can write data, but it cannot save data on disk.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 15 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 60. Visual Basic 2015 is a programming language.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 61. Buttons for the .NET components used to develop the GUI are found on the Standard toolbar.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 62. The Solution Explorer contains the item you are currently developing.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 63. An object acts as a general template and a class is a specific item generated based on the object template.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 64. The .NET Framework 4.6 contains thousands of classes and many class libraries that can be used by Visual Basic developers.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 65. ADO.NET 4.6 allows a program to examine data from a database, but does not permit the program to update data in a database.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 22 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 66. ADO.NET is not part of the .NET Framework 4.6.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 23 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 67. Almost all of the objects available in the .NET framework, such as buttons, text boxes, and picture boxes, are available in ASP.NET 5.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 23 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 68. The use of MSIL and CLR offer multiple benefits that provide speed and flexibility for both the development and execution environments of a program.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 25 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 69. After the compiling process is complete and a program is ready for execution, the MSIL reads the CLR in RAM in a form that allows the computer’s CPU to execute the instructions in the program.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | 25 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 70. Utmost among the benefits offered by MSIL and CLR is that a program written using Visual Studio 2015 and compiled into MSIL can be executed on any computer using any operating system, as long as .NET Framework 4.6 is available on the computer.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 25 | | *QUESTION TYPE:* | True / False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 71. The set of instructions that directs a computer to perform tasks is called computer hardware. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_​   |  |  | | --- | --- | | *ANSWER:* | False - software | | *POINTS:* | 1 | | *REFERENCES:* | 2 | | *QUESTION TYPE:* | Modified True / False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 72. It is the ability of a computer to perform arithmetic operations that separates it from other types of calculating devices. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_​   |  |  | | --- | --- | | *ANSWER:* | False - logical | | *POINTS:* | 1 | | *REFERENCES:* | 11 | | *QUESTION TYPE:* | Modified True / False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 73. The programming rules of a language are called its semantics. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_​   |  |  | | --- | --- | | *ANSWER:* | False - syntax | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | Modified True / False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 74. C++ is a language that is derived from the programming language C. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_​   |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | 19 | | *QUESTION TYPE:* | Modified True / False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 75. The process of creating an object from a class template is called generation. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_​   |  |  | | --- | --- | | *ANSWER:* | False - instantiation | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Modified True / False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 76. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are people skilled in designing computer programs and creating them using programming languages.​   |  |  | | --- | --- | | *ANSWER:* | Developers​ | | *POINTS:* | 1 | | *REFERENCES:* | 5 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 77. Developers speak of developing a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which can mean several computer programs working together to solve a problem.​   |  |  | | --- | --- | | *ANSWER:* | application​ | | *POINTS:* | 1 | | *REFERENCES:* | 5 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 78. Operations, such as addition and subtraction, are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operations.​   |  |  | | --- | --- | | *ANSWER:* | arithmetic​ | | *POINTS:* | 1 | | *REFERENCES:* | 10 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 79. The usage rules of a programming language are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the language.​   |  |  | | --- | --- | | *ANSWER:* | syntax​ | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 80. Visual Studio 2015 is an example of a set of services and tools called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which allows a developer to code, test, and implement programs.​   |  |  | | --- | --- | | *ANSWER:* | integrated development environment  integrated development environment (IDE)  IDE  ​ | | *POINTS:* | 1 | | *REFERENCES:* | 17 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 81. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in Visual Studio 2015 contains the .NET components that can be used in developing the GUI of a program.​   |  |  | | --- | --- | | *ANSWER:* | Toolbox​ | | *POINTS:* | 1 | | *REFERENCES:* | 18 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 82. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ programming language is a synthesis of Visual Basic and C++.​   |  |  | | --- | --- | | *ANSWER:* | Visual C#​ | | *POINTS:* | 1 | | *REFERENCES:* | 19 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 83. When an object has been created from a class, we say that a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the class has been created.​   |  |  | | --- | --- | | *ANSWER:* | instance​ | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 84. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a named group of program code.​   |  |  | | --- | --- | | *ANSWER:* | class​ | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 85. An object is instantiated from a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | class​ | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 86. A class acts as a general template from which a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be created.​   |  |  | | --- | --- | | *ANSWER:* | object​ | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 87. The .NET Framework 4.6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ contains thousands of classes.​   |  |  | | --- | --- | | *ANSWER:* | class library​ | | *POINTS:* | 1 | | *REFERENCES:* | 21 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 88. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the set of prewritten classes in the .NET Framework 4.6 used in Visual Studio to work with databases.​   |  |  | | --- | --- | | *ANSWER:* | ADO.NET  ADO.NET 4.6  ​ | | *POINTS:* | 1 | | *REFERENCES:* | 22 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 89. ASP.NET is designed for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ technologies and server-side applications.​   |  |  | | --- | --- | | *ANSWER:* | cloud​ | | *POINTS:* | 1 | | *REFERENCES:* | 23 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 90. When a program written in a Visual Studio 2015 programming language is compiled, the code is expressed in an intermediate language called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | Microsoft Intermediate Language  Microsoft Intermediate Language (MSIL)  MSIL  MSIL (Microsoft Intermediate Language)  ​ | | *POINTS:* | 1 | | *REFERENCES:* | 23-24 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 91. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reads the MSIL code and causes the program instructions to be executed.​   |  |  | | --- | --- | | *ANSWER:* | ​  Common Language Runtime (CLR)  Common Language Runtime  CLR (Common Language Runtime)  CLR | | *POINTS:* | 1 | | *REFERENCES:* | 24 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 92. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ application means the program will run on a computer or other device that supports the Windows GUI.​   |  |  | | --- | --- | | *ANSWER:* | ​ | | *POINTS:* | 1 | | *REFERENCES:* | 25 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 93. You can create \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ apps that are designed to run on Windows 8 or Windows 10 computers and mobile devices such as smartphones and tablets.​   |  |  | | --- | --- | | *ANSWER:* | Windows Store​ | | *POINTS:* | 1 | | *REFERENCES:* | 25 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 94. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a Microsoft product that provides cloud-based services to store, access, and organize information throughout an organization.​   |  |  | | --- | --- | | *ANSWER:* | SharePoint​ | | *POINTS:* | 1 | | *REFERENCES:* | 26 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 95. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ application includes writing Visual Basic 2015 code to automate and manipulate documents created using Microsoft Office 2010 or Office 2013 and SharePoint.​   |  |  | | --- | --- | | *ANSWER:* | Office/SharePoint​ | | *POINTS:* | 1 | | *REFERENCES:* | 26 | | *QUESTION TYPE:* | Completion | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Identify the letter of the choice that best matches the phrase or definition.*   |  |  | | --- | --- | | a. | ​hardware | | b. | event-driven​ | | c. | ​class library | | d. | logical​ | | e. | ​RAM | | f. | ADO.NET​ | | g. | ​syntax | | h. | persistent​ | | i. | ​.NET Framework 4.6 | | j. | F# |  |  |  | | --- | --- | | *REFERENCES:* | 4 3 4 6 11-12 16 20 21 20 22 | | *QUESTION TYPE:* | Matching | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 96. ​Where data must be placed in order to be processed   |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 97. ​The physical equipment associated with a computer   |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 98. ​Kind of data that remains available even after the computer is powered off   |  |  | | --- | --- | | *ANSWER:* | h | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 99. ​The kind of computer program that communicates interactively with the user through a graphical user interface   |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 100. ​The kind of operations used to compare two values   |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 101. ​The usage rules of a programming language   |  |  | | --- | --- | | *ANSWER:* | g | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 102. ​A multipurpose language similar to Visual Basic and C#   |  |  | | --- | --- | | *ANSWER:* | j | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 103. ​Available for all developers who need to use it   |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 104. Provides tools and processes developers can use to process and run programs   |  |  | | --- | --- | | *ANSWER:* | i | | *POINTS:* | 1 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 105. ​Provides the tools for a program to examine data that was retrieved from a database   |  |  | | --- | --- | | *ANSWER:* | f | | *POINTS:* | 1 | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 106. Define data, explain its three forms, and the general steps a computer performs related to data.​   |  |  | | --- | --- | | *ANSWER:* | Data includes words, numbers, videos, graphics, and sound that programs manipulate, display, and otherwise process. The basic function of many programs is to accept some form of data (sometimes called input data), manipulate the data in some manner (sometimes called processing), and create some form of data usable by people or other computers (sometimes called output data, or information). In short, many computer programs perform the following general steps: accept input data, process the data, and create output data. The data that acts as input to a program, the processing that occurs, and the output that is created varies with the requirements of the program.​ | | *POINTS:* | 1 | | *REFERENCES:* | 3-4 | | *QUESTION TYPE:* | Essay | | *TOPICS:* | Critical Thinking | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 107. Define syntax and explain its significance.​   |  |  | | --- | --- | | *ANSWER:* | Each program statement causes the computer to perform one or more operations. When written, these instructions must conform to the rules of the Visual Basic 2015 language. Coding a program is a precise skill. The developer must follow the syntax, or programming rules, of the programming language precisely. Even a single coding error can cause a program to execute improperly. Therefore, the developer must pay strict attention to coding an error-free program.​ | | *POINTS:* | 1 | | *REFERENCES:* | 16 | | *QUESTION TYPE:* | Essay | | *TOPICS:* | Critical Thinking | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 108. Discuss at least four of the elements found in the Visual Studio 2015 window.​   |  |  | | --- | --- | | *ANSWER:* | The title bar identifies the window and the application open in the window.  ​  The menu bar displays the Visual Studio 2015 menu names. The menus contain lists of commands that allow you to create, edit, save, print, test, and run a Visual Basic program, and to perform other functions that are critical to the development of Visual Basic programs.  ​  The Standard toolbar contains buttons that execute frequently used commands such as Open Project, Save, Cut, Copy, Paste, and Undo.  ​  The Toolbox contains .NET components that you can use to develop the GUI for the program.  ​  The main work area is used to contain the item on which you are working.  ​  The Solution Explorer window displays the elements of the Visual Basic solution, which is the name given to the Visual Basic program and other items that are generated by Visual Studio so the program will execute properly.  ​  An item that is a visible part of a GUI, is called an object, or control. Each object in a Visual Basic program has a set of characteristics called the properties of the object. These properties can be set in the Properties window within Visual Studio.  ​ | | *POINTS:* | 1 | | *REFERENCES:* | 17-18 | | *QUESTION TYPE:* | Essay | | *TOPICS:* | Critical Thinking | |

|  |
| --- |
| **Case 1-1**  ​As you prepare to bring one of the interns in your software development company up to speed on the project on which you are working, you decide to create some illustrations of your programming to make certain key concepts clear to the intern. |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 109. Which of the following is an example of an event that a user might perform in the application you are creating?​   |  |  |  | | --- | --- | --- | |  | a. | ​powering on the computer | |  | b. | ​saving data to RAM | |  | c. | ​clicking a button | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | Case 1-1 | | *TOPICS:* | Critical Thinking | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 110. All of the following are examples of actions within event-driven programs EXCEPT \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​An account balance is shown when a button is clicked. | |  | b. | ​A message appears on the screen in response to text entered by the user. | |  | c. | ​The computer reboots spontaneously as the result of a head crash. | |  | d. | ​A text box is reset when a Reset button is clicked. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 9 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | Case 1-1 | | *TOPICS:* | Critical Thinking | |

|  |
| --- |
| **Case 1-2**  ​Visual Studio is new to you and you are trying to determine which of its languages is the best match for a couple of the projects on which you and your team are about to embark. |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 111. You are looking for a program that will be the most user-friendly for two of the junior members of your team, both of whom are new to programming. Which of the following is the best match?​   |  |  |  | | --- | --- | --- | |  | a. | ​Visual Basic | |  | b. | ​C++ | |  | c. | ​Visual C# | |  | d. | All of the above​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 19 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | Case 1-2 | | *TOPICS:* | Critical Thinking | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 112. Steve and Shana on your team are looking for a language that will allow them to create an application that requires a high degree of control; they are not intimidated by complexity, as they have been programming for several years. Which of the following is the best match for them?​   |  |  |  | | --- | --- | --- | |  | a. | ​Visual Basic | |  | b. | ​Visual C# | |  | c. | ​C++ | |  | d. | ​Visual F# |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 19 | | *QUESTION TYPE:* | Multiple Choice | | *PREFACE NAME:* | Case 1-2 | | *TOPICS:* | Critical Thinking | |