**Starting Out with Visual C#, 5e (Tony Gaddis)**

**Chapter 1 Introduction to Computers and Programming**

**TRUE/FALSE**

1. Computers can perform a wide variety of tasks because they can be programmed in ways that are specific to the needs of applications.

ANS: T

2. Today's microprocessors are less powerful than the larger electromechanical CPUs in early computers.

ANS: F

3. RAM memory retains its contents when a computer is turned off.

ANS: F

4. Programs are usually stored in main memory and loaded into secondary storage as needed.

ANS: F

5. Most of a computer's RAM is stored in the same device that performs calculations.

ANS: F

6. Data is not recorded magnetically on an optical disc but is encoded as a series of pits on the disc surface.

ANS: T

7. The two general categories of software are system software and utility software.

ANS: F

8. Some examples of application software are spreadsheet programs, Web browsers, games, and email programs.

ANS: T

9. Any piece of data stored in a computer's memory must be stored as a decimal number.

ANS: F

10. The largest value that can be stored in a byte is 1.

ANS: F

11. The term 'pixel' stands for 'picture element.'

ANS: T

12. A binary number can only represent integer values from 0 through 255.

ANS: F

13. A program is a list of instructions that tell the CPU to perform operations.

ANS: T

14. The CPU can only execute machine language programs.

ANS: T

15. A machine language instruction exists for each basic operation a CPU can do.

ANS: T

16. If a program's source code contains a syntax error, it can still be translated to machine language by a compiler.

ANS: F

17. In a program with a graphical user interface, all of the objects are always visible when the program starts.

ANS: F

18. The C# language provides classes and other code necessary to create GUIs and perform many other advanced operations.

ANS: F

19. The C# language allows you to write your own classes that have specific fields, properties, and methods for any application.

ANS: T

20. The .NET framework provides classes to create Forms, TextBoxes, Labels, Buttons, and many other types of objects.

ANS: T

**MULTIPLE CHOICE**

1. A computer's memory is divided into tiny storage locations known as \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | sectors | b. | arrays | c. | cells | d. | bytes |

ANS: D

2. In the \_\_\_\_\_\_\_\_\_\_ numbering system, all numeric values are written as sequences of the digits 0 and 1.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | hexadecimal | c. | octal |
| b. | decimal | d. | binary |

ANS: D

3. Programs are commonly referred to as \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | applications | c. | software |
| b. | simulations | d. | firmware |

ANS: C

4. Which refers to all the physical devices or components of a computer?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | hardware | c. | machine |
| b. | workstation | d. | system |

ANS: A

5. The \_\_\_\_\_\_\_\_\_\_ is the part of a computer's hardware that executes each instruction in a program.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | CPU | c. | main memory |
| b. | software | d. | programming language |

ANS: A

6. \_\_\_\_\_\_\_\_\_\_ is a type of memory that can hold data for long periods of time, even when there is no power to the computer.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | RAM | c. | Application software |
| b. | Secondary storage | d. | Main memory |

ANS: B

7. The computer component that collects data and sends it to the computer is called a(n) \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | storage device | c. | sending unit |
| b. | output device | d. | input device |

ANS: D

8. Any data that the computer produces and sends to another device, such as a video display or speaker, is known as \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | output | b. | software | c. | firmware | d. | multimedia |

ANS: A

9. A(n) \_\_\_\_\_\_\_\_\_\_ performs a specialized task that enhances the computer's operation or safeguards data.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | utility program | c. | USB drive |
| b. | secondary storage device | d. | operating system |

ANS: A

10. \_\_\_\_\_\_\_\_\_\_ is an extensive encoding scheme that is compatible with ASCII and can also represent the characters of many of the world's languages.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | Baudot code | b. | EBDIC | c. | ANSEL | d. | Unicode |

ANS: D

11. Before a computer can store a real number in memory, it must be encoded in \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | floating-point notation | c. | EBCDIC |
| b. | hexadecimal | d. | decimal mode |

ANS: A

12. A(n) \_\_\_\_\_\_\_\_\_\_ is any device that works with binary data.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | electronic module | c. | binary machine |
| b. | digital device | d. | computational tool |

ANS: B

13. Digital images are composed of tiny dots of color known as \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | halftone cells | c. | light-emitting diodes |
| b. | pixels | d. | raster elements |

ANS: B

14. A digital song is broken into small pieces known as \_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | tones | b. | pulses | c. | samples | d. | waves |

ANS: C

15. When a CPU executes each instruction in a program, it uses a process known as the \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | fetch-decode-execute cycle | c. | code assembly process |
| b. | ready-set-go phase | d. | compilation sequence |

ANS: A

16. Instead of using binary numbers for instructions, assembly language uses short words known as \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | mnemonics | b. | keywords | c. | operators | d. | terms |

ANS: A

17. Words that have a predefined meaning in a high-level language are known as \_\_\_\_\_\_\_\_\_\_ or reserved words.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | mnemonics | b. | keywords | c. | pseudonyms | d. | semantics |

ANS: B

18. Programming languages have \_\_\_\_\_\_\_\_\_\_ that perform various operations on data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | mnemonics | b. | keywords | c. | states | d. | operators |

ANS: D

19. A special program known as a(n) \_\_\_\_\_\_\_\_\_\_ is used to translate an assembly language program into a machine language program.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | interpreter | c. | translator |
| b. | assembler | d. | code conversion tool |

ANS: B

20. A(n) \_\_\_\_\_\_\_\_\_\_ allows you to create powerful and complex programs without knowing how the CPU works and without writing a large amount of low-level instructions.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | assembler | c. | high-level language |
| b. | interpreter | d. | virtual language |

ANS: C

21. Each programming language has its own \_\_\_\_\_\_\_\_\_\_ which is a set of rules that must be strictly followed when writing a program.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | convention | c. | syntax |
| b. | conversion rules | d. | structure |

ANS: C

22. The individual instructions that you use to write a program in a high-level programming language are called \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | directives | c. | statements |
| b. | commands | d. | orders |

ANS: C

23. A(n) \_\_\_\_\_\_\_\_\_\_ is a mistake such as a misspelled keyword, a missing punctuation character, or the incorrect use of an operator.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | parsed anomaly | c. | code bug |
| b. | syntax error | d. | illegal operation |

ANS: B

24. Because GUI programs must respond to the actions of the user, they are said to be \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | response-based | c. | open-ended |
| b. | drag-and-drop | d. | event-driven |

ANS: D

25. When you use a(n) \_\_\_\_\_\_\_\_\_\_ language, you create programs by putting together a collection of objects.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | object-oriented | c. | collective |
| b. | object-based | d. | high-levek |

ANS: A

26. The data stored in an object are commonly called fields or \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | functions | c. | properties |
| b. | characteristics | d. | values |

ANS: C

27. The operations that an object can perform are called \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | actions | b. | events | c. | properties | d. | methods |

ANS: D

28. In object-oriented programming with a GUI interface, a window displayed on the screen is called a \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | window object | c. | form object |
| b. | screen object | d. | frame object |

ANS: C

29. A \_\_\_\_\_\_\_\_\_\_ object displays text on a form.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | Text | b. | Font | c. | Character | d. | Label |

ANS: D

30. A \_\_\_\_\_\_\_\_\_\_ is code that describes a particular type of program object.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | class | b. | specification | c. | blueprint | d. | diagram |

ANS: A

31. Before beginning a new programming project, you must \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | design the program's logic | c. | write the program's code |
| b. | correct syntax errors | d. | understand the program's purpose |

ANS: D

32. A(n) \_\_\_\_\_\_\_\_\_\_ describes a set of well-defined logical steps that must be taken to perform a task.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | flowchart | b. | schematic | c. | algorithm | d. | outline |

ANS: C

33. An algorithm written out in plain English statements is called \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | prototyping | b. | pseudocode | c. | outlining | d. | quick-code |

ANS: B

34. A \_\_\_\_\_\_\_\_\_\_ is a diagram that graphically depicts the steps of an algorithm.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | flowchart | c. | schematic |
| b. | billboard | d. | hierarchy chart |

ANS: A

35. A(n) \_\_\_\_\_\_\_\_\_\_ is a mistake that does not prevent a program from starting but causes it to produce incorrect results.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | syntax error | c. | parse error |
| b. | logic error | d. | running error |

ANS: B

36. A(n) \_\_\_\_\_\_\_\_\_\_ provides all the necessary tools to create, test, and debug software.

|  |  |
| --- | --- |
| a. | super computer |
| b. | integrated development environment (IDE) |
| c. | operating system |
| d. | software development kit (SDK) |

ANS: B

37. In Visual Studi each Visual C# application you create is called a \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | solution | b. | file | c. | source | d. | project |

ANS: A

38. When you create a Visual C# application, use the \_\_\_\_\_\_\_\_\_\_ window to examine and change a control's properties.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Properties | c. | Designer |
| b. | Solution Explorer | d. | Attributes |

ANS: A

39. When you create a new project using Visual Studio, it will be stored in a \_\_\_\_\_\_\_\_\_\_ at the location you specify on your computer's disk.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Solution folder | c. | Solution file |
| b. | Project folder | d. | System file |

ANS: A

40. A computer stores a program while the program is running as well as the data used by the program in \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | main memory | c. | the CPU |
| b. | the software | d. | secondary storage |

ANS: A