**Question 1**(1 point)

Question 1 Unsaved

Generic methods can *not* be overloaded.

Question 1 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 2**(1 point)

Question 2 Unsaved

Key events are more important to the program than other events.

Question 2 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 3**(1 point)

Question 3 Unsaved

Events can be:

Question 3 options:

|  |  |
| --- | --- |
|  | generated within the code of the program. |
|  | started with a click on a button, or other control. |
|  | generated by keyboard input. |
|  | All of these. |

**Question 4**(1 point)

Question 4 Unsaved

A LINQ query is executed when it's created.

Question 4 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 5**(1 point)

Question 5 Unsaved

RadioButtons are used to:

Question 5 options:

|  |  |
| --- | --- |
|  | let the user choose between the given choices. |
|  | let the user select any number of given options. |
|  | provide animation. |
|  | let the user choose between the given choices and let the user select any number of given options |
|  | All of these. |

Save

**Question 6**(1 point)

Question 6 Unsaved

Many of the components used for Windows apps are defined in namespace:

Question 6 options:

|  |  |
| --- | --- |
|  | System. |
|  | System.Windows.Forms. |
|  | System.Windows.UI. |
|  | System.Web.UI. |

**Question 7**(1 point)

Question 7 Unsaved

You can use explicit type arguments to indicate the exact type that should be used to call a generic method (e.g., <int >).

Question 7 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 8**(1 point)

Question 8 Unsaved

In a LINQ query, the where clause specifies \_\_\_\_\_\_\_\_.

Question 8 options:

|  |  |
| --- | --- |
|  | the data source |
|  | where to put the data |
|  | the condition(s) for including the item |
|  | the Location property |
|  | the data type |

Save

**Question 9**(1 point)

Question 9 Unsaved

A GroupBox can be used to organize similar controls.

Question 9 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 10**(1 point)

Question 10 Unsaved

Each TabPage on the form must use the same event triggers.

Question 10 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 11**(1 point)

Question 11 Unsaved

Property Anchor allows the programmer to prevent form alterations by the user.

Question 11 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 12**(1 point)

Question 12 Unsaved

A let clause is used to create \_\_\_\_\_\_\_\_.

Question 12 options:

|  |  |
| --- | --- |
|  | a method within a LINQ query |
|  | a subquery |
|  | a new range variable |
|  | None of these |

**Question 13**(1 point)

Question 13 Unsaved

The GetItemChecked method returns the last item that was checked by the user.

Question 13 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 14**(1 point)

Question 14 Unsaved

Class CheckedListBox derives from class ListBox and contains similar properties.

Question 14 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 15**(1 point)

Question 15 Unsaved

Visual Studio provides snap lines to help align controls.

Question 15 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 16**(1 point)

Question 16 Unsaved

The Directory class is found within the System namespace.

Question 16 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 17**(1 point)

Question 17 Unsaved

Event delegates can contain any method.

Question 17 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 18**(1 point)

Question 18 Unsaved

All controls contain the method OnPaint which is used to change the display on a control.

Question 18 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 19**(1 point)

Question 19 Unsaved

Inheriting a form can be difficult in C#.

Question 19 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 20**(1 point)

Question 20 Unsaved

Visual inheritance is used to create visual consistence and uniformity.

Question 20 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 21**(1 point)

Question 21 Unsaved

An example of a TreeView is:

Question 21 options:

|  |  |
| --- | --- |
|  | all of your e-mail. |
|  | a Web site in Internet Explorer. |
|  | the My Computer folder. |
|  | the left side of Windows Explorer. |

**Question 1**(1 point)

uestion 1 Saved

What occurs when an empty case matches the controlling expression?

Question 1 options:

|  |  |
| --- | --- |
|  | fall through |
|  | syntax error |
|  | infinite loop |
|  | None of these. |

Save

**Question 2**(1 point)

uestion 2 Saved

Instances of a class are called class variables.

Question 2 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 3**(1 point)

uestion 3 Saved

Arrays are \_\_\_\_\_\_\_\_ data structures.

Question 3 options:

|  |  |
| --- | --- |
|  | constant |
|  | dynamic |
|  | static |
|  | None of these. |

**Question 4**(1 point)

uestion 4 Saved

An interface can not provide properties with get and set accessors.

Question 4 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 5**(1 point)

uestion 5 Saved

Control-statement stacking is the process of:

Question 5 options:

|  |  |
| --- | --- |
|  | placing control statements within each other. |
|  | placing control statements one after another. |
|  | reducing the number of statements required by combining statements. |
|  | None of these. |

Save

**Question 6**(1 point)

uestion 6 Saved

What can foreach statements iterate through?

Question 6 options:

|  |  |
| --- | --- |
|  | arrays |
|  | collections |
|  | databases |
|  | arrays and collections |

**Question 7**(1 point)

uestion 7 Saved

After defining a property, you must call the get and set accessors to manipulate it.

Question 7 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 8**(1 point)

uestion 8 Saved

Programmers should *not* take into consideration that their code will be modified.

Question 8 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 9**(1 point)

uestion 9 Saved

Any parameter in a parameter list can be declared as an optional parameter.

Question 9 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 10**(1 point)

uestion 10 Saved

What kinds of arrays can variable-length argument lists work with?

Question 10 options:

|  |  |
| --- | --- |
|  | one-dimensional arrays |
|  | multi-dimensional arrays |
|  | All of these |
|  | None of these |

Save

**Question 11**(1 point)

uestion 11 Saved

The text in the form's title bar is determined by the form's Text property.

Question 11 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 12**(1 point)

uestion 12 Saved

Since memory in a computer is finite, a stack error may occur known as stack overflow.

Question 12 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 13**(1 point)

uestion 13 Saved

Which of the following will violate the rules of overloading methods?

Question 13 options:

|  |  |
| --- | --- |
|  | Methods with the same signatures but different return types. |
|  | Methods with different signatures but the same return type. |
|  | Methods with different number of arguments. |
|  | Method with different types of arguments. |

Save

**Question 14**(1 point)

uestion 14 Saved

What is the difference between a float and a double?

Question 14 options:

|  |  |
| --- | --- |
|  | double variables store integers and float variables store floating-point numbers. |
|  | double variables store numbers with smaller magnitude and coarser detail. |
|  | double variables store numbers with larger magnitude and finer detail. |
|  | None of these. |

Save

**Question 15**(1 point)

uestion 15 Saved

The catch handler that catches an exception of type Exception should be

Question 15 options:

|  |  |
| --- | --- |
|  | last. |
|  | anywhere. |
|  | first. |
|  | A catch handler that catches an exception of type Exception should not be used. |

Save

**Question 16**(1 point)

uestion 16 Saved

If you want to pass an array element into a method by reference, what will you need to do?

Question 16 options:

|  |  |
| --- | --- |
|  | It always passes the element as a reference automatically. |
|  | Use the keyword ref and/or out. |
|  | All of these. |
|  | None of these, passing in by reference of an array element is only possible if the array type is a reference type. |

Save

**Question 17**(1 point)

uestion 17 Saved

A static variable represents class-wide information.

Question 17 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 18**(1 point)

uestion 18 Saved

Every object of a base class is an object of that class's derived classes.

Question 18 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 19**(1 point)

uestion 19 Saved

A derived class can effect state changes in base class private members only through public, protected, internalmethods provided in the base class and inherited into the derived class.

Question 19 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 20**(1 point)

uestion 20 Saved

It is known as \_\_\_\_\_\_\_\_ when the number of repetitions is known before a loop begins executing.

Question 20 options:

|  |  |
| --- | --- |
|  | definite repetition |
|  | infinite repetition |
|  | total repetition |
|  | None of these. |

Save

**Question 21**(1 point)

uestion 21 Saved

The integration of software components from various languages has been relatively simple.

Question 21 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

**Question 1**(1 point)

uestion 1 Unsaved

The term *information hiding* refers to:

Question 1 options:

|  |  |
| --- | --- |
|  | public methods. |
|  | hiding implementation details from clients of a class. |
|  | accessing static class members. |
|  | the process of releasing an object for garbage collection. |

Save

**Question 2**(1 point)

uestion 2 Unsaved

int division may yield a non-int result.

Question 2 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 3**(1 point)

uestion 3 Unsaved

Which statement below is *false*?

Question 3 options:

|  |  |
| --- | --- |
|  | Structured programming produces programs that are easier to test. |
|  | Structured programming requires four forms of control. |
|  | Structured programming produces programs that are easier to modify |
|  | Structured programming promotes simplicity. |

Save

**Question 4**(1 point)

uestion 4 Unsaved

private fields of a base class can be accessed in a derived class

Question 4 options:

|  |  |
| --- | --- |
|  | by calling private methods declared in the base class. |
|  | by calling public or protected methods declared in the base class. |
|  | directly. |
|  | All of these |

Save

**Question 5**(1 point)

uestion 5 Unsaved

Variables or methods declared with access modifier public are accessible wherever the program has a reference to an object of the class.

Question 5 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 6**(1 point)

uestion 6 Unsaved

What does the following line display?

Question 6 options:

|  |  |
| --- | --- |
|  | Welcome to  C# Programming! |
|  | Welcome to C# Programming! |
|  | {0}  {1}Welcome to C# Programming! |
|  | None of these |

**Question 7**(1 point)

uestion 7 Unsaved

Using top-down, stepwise refinement results in pseudocode that can be straightforwardly evolved into a C# program.

Question 7 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 8**(1 point)

uestion 8 Unsaved

In order to tell the user what happened in an exception you *must*

Question 8 options:

|  |  |
| --- | --- |
|  | pop the exception. |
|  | toss the exception. |
|  | access Exception properties. |
|  | throw the exception. |

Save

**Question 9**(1 point)

uestion 9 Unsaved

Stacks are commonly referred to as \_\_\_\_\_\_\_\_ data structures.

Question 9 options:

|  |  |
| --- | --- |
|  | first-in, last-out |
|  | first-in, first-out |
|  | last-in, first-out |
|  | None of these. |

**Question 10**(1 point)

uestion 10 Unsaved

The process that attempts to locate an appropriate catch handler for an uncaught exception is known as:

Question 10 options:

|  |  |
| --- | --- |
|  | laddering. |
|  | stack winding. |
|  | stack unwinding. |
|  | stack traversing. |

Save

**Question 11**(1 point)

uestion 11 Unsaved

Constants are declared using keyword \_\_\_\_\_\_\_\_.

Question 11 options:

|  |  |
| --- | --- |
|  | static |
|  | const |
|  | fixed |
|  | None of these. |

Save

**Question 12**(1 point)

uestion 12 Unsaved

A class inherited from two or more levels up in the hierarchy is known as a \_\_\_\_\_\_\_\_.

Question 12 options:

|  |  |
| --- | --- |
|  | indirect base class |
|  | direct base class |
|  | superclass |
|  | None of these. |

Save

**Question 13**(1 point)

uestion 13 Unsaved

Only the first constructor for a class is defined without a return value. Subsequent constructors have the return type void.

Question 13 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 14**(1 point)

uestion 14 Unsaved

Which of the following is *not* necessarily an error (either a syntax error or a logic error)?

Question 14 options:

|  |  |
| --- | --- |
|  | Neglecting to include an action in the body of a while statement that will eventually cause the condition to becomefalse. |
|  | Spelling a key word (such as while or if) with a capitalized first letter. |
|  | Using a condition for a while statement that is initially false. |
|  | An infinite loop. |

Save

**Question 15**(1 point)

uestion 15 Unsaved

User-created exceptions can be created by:

Question 15 options:

|  |  |
| --- | --- |
|  | overriding the Error class. |
|  | overriding the Exception property. |
|  | extending class Exception. |
|  | They cannot be created. |

**Question 16**(1 point)

uestion 16 Unsaved

What was the most important capability of C++ that C did not provide?

Question 16 options:

|  |  |
| --- | --- |
|  | networking technology |
|  | data type technology |
|  | object-oriented technology |
|  | adding dynamic content to web pages |

Save

**Question 17**(1 point)

uestion 17 Unsaved

A program contains a copy of a static variable for each object that's instantiated.

Question 17 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 18**(1 point)

uestion 18 Unsaved

The finally block is executed *only* if *no* error was reached in the try block.

Question 18 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 19**(1 point)

uestion 19 Unsaved

Operator overloading is the process of:

Question 19 options:

|  |  |
| --- | --- |
|  | enabling C#'s operators to work with class objects. |
|  | using operators to create new classes. |
|  | using operators to specify which versions of overloaded methods to use. |
|  | None of these. |

Save

**Question 20**(1 point)

uestion 20 Unsaved

Declaring an interface protected allows for extra security precautions.

Question 20 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 21**(1 point)

uestion 21 Unsaved

Polymorphism enables objects of different classes that are related by a class hierarchy to be processed generically.

Question 21 options:

|  |  |
| --- | --- |
|  | True |
|  | False |

Save

**Question 1** (1 point)

Description: Question 1 Saved

XML is:

Question 1 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | a language that describes data. |
|  | 2) | a language that preceded HTML. |
|  | 3) | limited to web applications. |
|  | 4) | excluded from use in Microsoft’s .NET because of security issues. |

Save

|  |
| --- |
| **Question 2** |

Disks and hard drives are types of secondary storage units. They are used to store data for large amounts of time.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 3** | | | |  |
|  |  |  |  |  |

The .NET platform is used \_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | for web-based applications to be distributed to a great variety of devices. |
|  | |  | 2) | for system interoperability. |
| Description: Correct Response | |  | 3) | a and b. |
|  | |  | 4) | None of the above. |
| **Question 4** | | | |  |
|  |  |  |  |  |

The cost of computing power has been

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | about the same each year. |
|  | |  | 2) | going up. |
| Description: Correct Response | |  | 3) | going down. |
|  | |  | 4) | undetermined. |
| **Question 5** | | | |  |
|  |  |  |  |  |

Java enables you to add dynamic content to web pages.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

Save

**Question 6** (1 point)

Description: Question 6 Saved

Objects normally are not allowed to know how other objects are implemented. This is called \_\_\_\_\_\_\_\_\_\_.

Question 6 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | encapsulation |
|  | 2) | information hiding |
|  | 3) | blindfolding |
|  | 4) | inheritance |

**Question 7** (1 point)

Description: Question 7 Saved

When an application executes, the just-in-time compiler converts the machine language file into MSIL code.

Question 7 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

Save

|  |
| --- |
| **Question 8** |

\_\_\_\_\_\_ Law states that every year or two, the computing power of computers doubles without any increase in price.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Gate’s |
| Description: Correct Response | |  | 2) | Moore’s |
|  | |  | 3) | Henderson’s |
|  | |  | 4) | None of the above. |
| **Question 9** | | | |  |
|  |  |  |  |  |

Which of the following is/are true about Visual Basic?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | It’s object oriented. |
|  |  | 2) | It makes Windows programming easier. |
|  |  | 3) | It’s event driven. |
| Description: Correct Response |  | 4) | All of the above. |

**Question 10** (1 point)

Description: Question 10 Saved

High-level computer languages are easily understood by a computer without any need of translation.

Question 10 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

Save

|  |
| --- |
| **Question 11** |

C# is an object oriented language that has roots in C, C++ and Java.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 12** | | | |  |
|  |  |  |  |  |

Computers called offer a common data store and services that may be used by client computers distributed throughout the network.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | servers |
|  | |  | 2) | desktops |
|  | |  | 3) | workstations |
|  | |  | 4) | None of the above. |
| **Question 13** | | | |  |
|  |  |  |  |  |

The color, size, weight and speed of an object are examples of its \_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | attributes. |
|  | |  | 2) | behaviors. |
|  | |  | 3) | classes. |
|  | |  | 4) | requirements. |
| **Question 14** | | | |  |
|  |  |  |  |  |

What was the most important capability of C++ that C did not provide?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | networking technology |
|  | |  | 2) | data type technology |
| Description: Correct Response | |  | 3) | object-oriented technology |
|  | |  | 4) | adding dynamic content to web pages. |
| **Question 15** | | | |  |
|  |  |  |  |  |

C# applications can interact over the Internet.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 16** | | | |  |
|  |  |  |  |  |

The W3C is an organization that:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | maintains and runs the internet. |
|  | |  | 2) | removes junk and broken links from the web. |
|  | |  | 3) | developed e-mail. |
| Description: Correct Response | |  | 4) | helps to develop and improve the World Wide Web (WWW). |
| **Question 17** | | | |  |
|  | | | |  |
|  | | | |  |
|  |  |  |  |  |

Visual Basic is an event-driven, fully object-oriented visual programming language.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 18** | | | |  |
|  |  |  |  |  |

Computers process data, using sets of instructions called \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | soft goods |
| Description: Correct Response | |  | 2) | computer programs |
|  | |  | 3) | recipes |
|  | |  | 4) | hardware |
| **Question 19** | | | |  |
|  |  |  |  |  |

Part of the .NET Initiative is Microsoft’s \_\_\_\_\_\_\_ technology, which enables you to create web applications:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | MSIL |
|  |  | 2) | CLI |
|  |  | 3) | CLR |
| Description: Correct Response |  | 4) | ASP.NET |

Save

**Question 20** (1 point)

Description: Question 20 Saved

The first company to popularize the personal computer was IBM.

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 1** |

Microsoft’s .NET Framework \_\_\_\_\_\_\_\_\_ .

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | executes applications. |
|  |  | 2) | contains a class library |
|  |  | 3) | provides many capabilities for building Visual Basic applications. |
| Description: Correct Response |  | 4) | All of the above. |

Question 2 (1 point)

Description: Question 2 Saved

Developers can create .NET applications only in Visual C#.

Question 2 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 3** | | | |
|  |  |  |  |  |

The CPU is the heart of the computer. It tells the computer when input is received and when output should be displayed. It also helps in the storage of data to memory.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

Question 4 (1 point)

Description: Question 4 Saved

The .NET Framework installed on a specific platform can execute only programs written for that particular platform.

Question 4 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 5** | | | |
|  |  |  |  |  |

Every computer can be divided into 6 basic units. They are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | monitor, mouse, keyboard, hard drive, processor and disk drives. |
|  | |  | 2) | input, output, primary storage, secondary storage, memory and ALU. |
| Description: Correct Response | |  | 3) | input, output, memory, ALU, CPU and secondary storage. |
|  | |  | 4) | input, output, primary storage, secondary storage, CPU, memory. |
| **Question 6** | | | | |
|  |  |  |  |  |  |

The order of simplicity to a human of the three basic types of languages is: (easiest to hardest)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | high-level, assembly, machine |
|  | |  | 2) | assembly, machine, high-level |
|  | |  | 3) | machine, high-level, assembly |
|  | |  | 4) | machine, assembly, high-level |
| **Question 7** | | | | |
|  |  |  |  |  |  |

The           part of the .NET Framework executes Visual Basic programs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Common Language Specification |
|  | |  | 2) | Framework Class Library |
| Description: Correct Response | |  | 3) | Common Language Runtime |
|  | |  | 4) | None of the above. |
| **Question 8** | | | | |
|  |  |  |  |  |  |

Input devices allow the computer to receive data. They are things such as a keyboard or mouse.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 9** | | | | |
|  |  |  |  |  |  |

Web-based applications can be distributed to a great variety of devices from cell phones to desktop computers using the .NET platform.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |
|  |  |  |  |  |  |

In the mid-1980s, Microsoft developed the \_\_\_\_\_\_\_\_ operating system, consisting of a graphical user interface built on top of DOS.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Unix |
|  | |  | 2) | Macintosh |
|  | |  | 3) | Linux |
| Description: Correct Response | |  | 4) | Windows |
| **Question 11** | | | | |
|  |  |  |  |  |  |

Before .NET applications are compiled into machine code, they are translated  
to                .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Microsoft Common Language |
| Description: Correct Response | |  | 2) | Microsoft Intermediate Language |
|  | |  | 3) | Microsoft Runtime Language |
|  | |  | 4) | None of the above. |
| **Question 12** | | | | |
|  |  |  |  |  |  |

\_\_\_\_\_\_\_\_\_-oriented programming models real-world entities with software counterparts.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Action |
|  |  | 2) | Model |
| Description: Correct Response |  | 3) | Object |
|  |  | 4) | Procedure |

Question 13 (1 point)

Description: Question 13 Saved

Logical decisions are made by the CPU.

Question 13 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 14** | | | |
|  |  |  |  |  |

The first computers pioneered by Apple and IBM were "stand-alone" units.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 15** | | | | |
|  |  |  |  |  |  |

The purpose of the ALU is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | to store permanent data. |
|  | |  | 2) | to store temporary data. |
|  | |  | 3) | to cool the computer down and prevent overheating. |
| Description: Correct Response | |  | 4) | to perform basic math and logical comparisons for the computer. |
| **Question 16** | | | | |
|  |  |  |  |  |  |

Which of the following is *true*: C#

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | is object oriented. |
|  | |  | 2) | contains a powerful class library. |
|  | |  | 3) | is *not* limited to web-based applications. |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 17** | | | | |
|  |  |  |  |  |  |

C# is an object oriented language that is a hybrid of C, C++ and Java.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

Question 18 (1 point)

Description: Question 18 Saved

The integration of software components from various languages has been relatively simple.

Question 18 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 19** | | | |
|  |  |  |  |  |

The \_\_\_\_\_\_\_ is a collection of hardware and software associated with the Internet that allows computer users to locate and view multimedia-based documents on almost any subject.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | HyperText Markup Language |
|  | |  | 2) | HyperText Transfer Protocol |
| Description: Correct Response | |  | 3) | World Wide Web |
|  | |  | 4) | CERN |
| **Question 20** | | | | |
|  |  |  |  |  |  |

Machine languages \_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | are machine dependent. |
|  |  | 2) | are universal between all machines. |
|  |  | 3) | consist of numbers and letters. |
|  |  | 4) | need to be translated in order for the machine to understand commands. |

|  |
| --- |
| **Question 1** |

The Visual Studio 2010 IDE can be used to create applications only in C#.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
|  |  |  |  |

Question 2 (1 point)

Description: Question 2 Saved

Clicking BackColor in the Properties window allows you to change the form’s background color.

Question 2 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 3** | | | |
|  |  |  |  |  |

You cannot browse the web from within the Visual Studio 2010 environment.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 4** |

The Solution Explorer window provides access only to *certain* files in the solution.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

Question 5 (1 point)

Description: Question 5 Saved

The Properties window

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | allows you to modify control’s properties without writing any code. |
|  | | 2) | displays a control’s information. |
|  | | 3) | has the same set of options for every control. |
|  | | 4) | a and b |
|  | | 5) | a and c |
| **Question 6** | | | |
|  |  |  |  |  |

Which of the following is *not* a supported image format in Visual Studio 2010:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | GIF |
| Description: Correct Response |  | 2) | TIF |
|  |  | 3) | PNG |
|  |  | 4) | JPEG |

Question 7 (1 point)

Description: Question 7 Saved

The toolbox contains icons representing controls used to customize forms.

Question 7 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 8** | | | |
|  |  |  |  |  |

To make a new project you have to go into the Get Started section.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 9** |

The purpose of the Visual Studio 2010 IDE is to

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | create a program. |
|  | |  | 2) | run a program. |
|  | |  | 3) | debug a program. |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 10** | | | | |
|  |  |  |  |  |  |

The programmer can also access all the commands in the menus from the toolbar.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 11** |

The View menu:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | Contains commands for displaying IDE windows and toolbars |
|  | |  | 2) | Contains commands for arranging a form’s controls. |
|  | |  | 3) | Contains commands for managing a project and its files. |
|  | |  | 4) | Contains commands for compiling a program. |
| **Question 12** | | | | |
|  |  |  |  |  |  |

The Microsoft Developers Network (MSDN) online library provides:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | tutorials |
|  | |  | 2) | articles |
|  | |  | 3) | downloads |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 13** | | | | |
|  |  |  |  |  |  |

If the Solution Explorer is not shown, select \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | View > Solution Explorer |
|  | |  | 2) | File > Solution Explorer |
|  | |  | 3) | Edit > Solution Explorer |
|  | |  | 4) | Tools > Solution Explorer |
| **Question 14** | | | | |
|  |  |  |  |  |  |

A solution is a group of related files, such as C# code, images and documentation.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 15** |

This menu contains commands for opening projects, closing projects, printing project data, etc.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | View menu |
|  |  | 2) | Edit menu |
|  |  | 3) | Tools menu |
| Description: Correct Response |  | 4) | File menu |

Question 16 (1 point)

Description: Question 16 Saved

Dragging and dropping predefined building blocks into place is part of visual programming in C#.

Question 16 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

Question 17 (1 point)

Description: Question 17 Saved

By default, the Visual Studio 2010 IDE assigns this name to a new Windows Forms  
project:

Question 17 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | NewProject1 |
|  | 2) | WindowsFormsApplication1 |
|  | 3) | NewProject |
|  | 4) | MyProject |

Question 18 (1 point)

Description: Question 18 Saved

The PictureBox control is used to display:

Question 18 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | text and images |
|  | 2) | only images |
|  | 3) | only text |
|  | 4) | colors |

Question 19 (1 point)

Description: Question 19 Saved

The text in the form’s title bar is determined by the form’s Text property.

Question 19 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

Question 20 (1 point)

Description: Question 20 Saved

The behavior of a C# program is specified through conventional programming, i.e., writing code.

Question 20 options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | 1) | True | |
|  | | 2) | False | |
| |  | | --- | | **Question 1** |   Microsoft provides extensive help documentation via the \_\_\_\_\_\_\_\_\_\_ menu.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | Assist | |  | |  | 2) | Aid | |  | |  | 3) | Support | | Description: Correct Response | |  | 4) | Help | | **Question 2** | | | | | |  |  |  |  |  |  |   Visual Studio provides \_\_\_\_\_\_\_\_\_\_ pertaining to the “current content” (that is, the terms around the location of the mouse cursor).   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | content-sensitive help | | Description: Correct Response |  | 2) | context-sensitive help | |  |  | 3) | location-sensitive help | |  |  | 4) | mouse-sensitive help |     Question 3 (1 point)  Description: Question 3 Saved  Autohide enables the tool box to shrink down to the edge of the screen.  Question 3 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 4** | | | |   A           is a window used to communicate with users.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | form | |  |  | 2) | control | | Description: Correct Response |  | 3) | dialog | |  |  | 4) | None of the above. |     Question 5 (1 point)  Description: Question 5 Saved  Commands for managing the IDE and for developing, maintaining and executing programs are contained in the menus, which are located on the menu bar.  Question 5 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 6** | | | |   This menu contains commands for opening projects, closing projects, printing project data, etc.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | View menu | |  | |  | 2) | Edit menu | |  | |  | 3) | Tools menu | | Description: Correct Response | |  | 4) | File menu | | **Question 7** | | | | | |  |  |  |  |  |  |   The View menu:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | Contains commands for displaying IDE windows and toolbars | |  | |  | 2) | Contains commands for arranging a form’s controls. | |  | |  | 3) | Contains commands for managing a project and its files. | |  | |  | 4) | Contains commands for compiling a program. | | **Question 8** | | | | | |  |  |  |  |  |  |   The Properties window   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | allows you to modify control’s properties without writing any code. | |  | |  | 2) | displays a control’s information. | |  | |  | 3) | has the same set of options for every control. | | Description: Correct Response | |  | 4) | a and b | |  | |  | 5) | a and c | | **Question 9** | | | | | |  |  |  |  |  |  |   You cannot browse the web from within the Visual Studio 2010 environment.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 10** |   To make a new project you have to go into the Get Started section.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |     Question 11 (1 point)  Description: Question 11 Saved  Clicking BackColor in the Properties window allows you to change the form’s background color.  Question 11 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 12 (1 point)  Description: Question 12 Saved  Dragging and dropping predefined building blocks into place is part of visual programming in C#.  Question 12 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 13 (1 point)  Description: Question 13 Saved  The text in the form’s title bar is determined by the form’s Text property.  Question 13 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 14 (1 point)  Description: Question 14 Saved  The toolbox contains icons representing controls used to customize forms.  Question 14 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 15 (1 point)  Description: Question 15 Saved  The behavior of a C# program is specified through conventional programming, i.e., writing code.  Question 15 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 16** | | | |   The PictureBox control is used to display:   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | text and images | | Description: Correct Response | |  | 2) | only images | |  | |  | 3) | only text | |  | |  | 4) | colors | | **Question 17** | | | | | |  |  |  |  |  |  |   Which of the following is *not* a supported image format in Visual Studio 2010:   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | GIF | | Description: Correct Response | |  | 2) | TIF | |  | |  | 3) | PNG | |  | |  | 4) | JPEG | | **Question 18** | | | | | |  |  |  |  |  |  |   The programmer can also access all the commands in the menus from the toolbar.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 19** |   The Solution Explorer window provides access only to *certain* files in the solution.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 20** |   The purpose of the Visual Studio 2010 IDE is to   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | create a program. | |  |  | 2) | run a program. | |  |  | 3) | debug a program. | | Description: Correct Response |  | 4) | All of the above. |        |  | | --- | | **Question 1** |   The Parameter Info window indicates how many versions of the selected method are available.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 2** | | | | | |  |  |  |  |  |  |   How are console applications displayed?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | In a window form. | | Description: Correct Response | |  | 2) | In the Command Prompt. | |  | |  | 3) | Console applications have no output to display. | |  | |  | 4) | It depends. | | **Question 3** | | | | | |  |  |  |  |  |  |   Variable names correspond to locations in the computer’s memory.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 4** | | | | | |  |  |  |  |  |  |   Formatted items are enclosed in square brackets ( [] ).   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 5** |   Binary operators require two operands.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 6** | | | | | |  |  |  |  |  |  |   Which of the following represents multiplication?   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | \* | |  |  | 2) | / | |  |  | 3) | % | |  |  | 4) | ^ |     Question 7 (1 point)  Description: Question 7 Saved  Where can’t you see errors?  Question 7 options:   |  |  |  | | --- | --- | --- | |  | 1) | The line where the error occurred | |  | 2) | The Error List window | |  | 3) | The Solution window | |  | 4) | The Command Prompt window | | **Question 8** | | | |   Statements in C# end with:   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | : | | Description: Correct Response |  | 2) | ; | |  |  | 3) | # | |  |  | 4) | . |   Question 9 (1 point)  Description: Question 9 Saved  \_\_\_\_\_\_\_\_\_ are violations of language rules.  Question 9 options:   |  |  |  | | --- | --- | --- | |  | 1) | Logic errors | |  | 2) | Syntax errors | |  | 3) | Run-time errors | |  | 4) | None of the above. | | **Question 10** | | | |   When a method requires multiple arguments, the arguments are separated with semicolons.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 11** |   What does the following line display? Console.WriteLine(  "{0}\n{1}", "Welcome to ", "C# Programming!" );   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | Welcome to  C# Programming! | |  | |  | 2) | Welcome to C# Programming! | |  | |  | 3) | {0} {1}Welcome to C# Programming! | |  | |  | 4) | None of the above | | **Question 12** | | | | | |  |  |  |  |  |  |   Special characters can be inserted in comments that affect how the program executes.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 13** |   When you create a new Console Application, the class that is created by the IDE is completely empty.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |   Question 14 (1 point)  Description: Question 14 Saved  Arithmetic expressions in C# must be written in straight-line form.  Question 14 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 15** | | | |   The                statement allows a program to make a decision based on the truth or falsity of some condition.   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | if | |  |  | 2) | test | |  |  | 3) | logic | |  |  | 4) | None of the above. |     Question 16 (1 point)  Description: Question 16 Saved  The "\t" escape sequence moves the screen cursor to the next tab stop.  Question 16 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 17 (1 point)  Description: Question 17 Saved  The process of reading from a memory location is nondestructive.  Question 17 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 18 (1 point)  Description: Question 18 Saved  Which of the following have the capacity to display formatted data?  Question 18 options:   |  |  |  | | --- | --- | --- | |  | 1) | Console.Write | |  | 2) | Console.WriteLine | |  | 3) | Console.WriteFormat | |  | 4) | a and b | | **Question 19** | | | |   The starting point of a C# program is the            method.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | Main | |  | |  | 2) | Start | |  | |  | 3) | Open | |  | |  | 4) | None of the above. | | **Question 20** | | | | | |  |  |  |  |  |  |   Programmers insert comments in programs to document and improve the readability of their code.   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | True | |  |  | 2) | False |     Question 1 (1 point)  Description: Question 1 Saved  Every variable has a                .  Question 1 options:   |  |  |  | | --- | --- | --- | |  | 1) | type | |  | 2) | size | |  | 3) | value | |  | 4) | All of the above. |   The fractional part in integer division is stored in a variable declared automatically at run-time.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 3** |   C# is case insensitive, therefore an identifier named Pencil is the same as one named pencil.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 4** |   A           directs a user to take a specific action.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | declaration | |  | |  | 2) | error | | Description: Correct Response | |  | 3) | prompt | |  | |  | 4) | None of the above. | | **Question 5** | | | | | |  |  |  |  |  |  |   A variable is:   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | an instruction for the compiler | | Description: Correct Response |  | 2) | a location in memory where a value can be stored | |  |  | 3) | a description of a value (such as a number or character) | |  |  | 4) | None of the above. |     Question 6 (1 point)  Description: Question 6 Saved  Using redundant parentheses in mathematical expressions may cause errors.  Question 6 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 7 (1 point)  Description: Question 7 Saved  Only some C# programs contain class definitions.   |  | | --- | | **Question 7** |   Only some C# programs contain class definitions.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 8** |   Applications that contain only text output are referred to as                     .   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | text applications | | Description: Correct Response |  | 2) | console applications | |  |  | 3) | simple applications | |  |  | 4) | None of the above. |     Question 9 (1 point)  Description: Question 9 Saved  Namespaces group various C# features into related categories.  Question 9 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 10** | | | |   The console window in Windows XP / Vista / Windows 7 is called the command prompt.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 11** | | | | | |  |  |  |  |  |  |   Files called assemblies are packaging units for code in C#.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 12** | | | | | |  |  |  |  |  |  |   "\" is known as an escape sequence.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 13** |   When a value is placed in a memory location, the previous value in that location is moved to the next available location in memory.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 14** |   What do the following lines print? Console.Write( "Welcome to " ); Console.WriteLine( "C# Programming!" );   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | Welcome to  C# Programming! | | Description: Correct Response |  | 2) | Welcome to C# Programming! | |  |  | 3) | Welcome to C# Programming! | |  |  | 4) | Welcome to C# Programming! |     Question 15 (1 point)  Description: Question 15 Saved  An assignment statement is evaluated from left to right.  Question 15 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 16 (1 point)  Description: Question 16 Saved  A single line comment in C# begins with:  Question 16 options:   |  |  |  | | --- | --- | --- | |  | 1) | \*/ | |  | 2) | # | |  | 3) | // | |  | 4) | \\ | | **Question 17** | | | |   Concatenation is the process that enables a string and another string or a value of another data type to be combined to form a new string.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 18** | | | | | |  |  |  |  |  |  |   It's good practice to fit as many statements as possible on a single line.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 19** |   What does *IntelliSense* help you do?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | Detect errors | | Description: Correct Response | |  | 2) | Simplify writing code | |  | |  | 3) | Compile your code | |  | |  | 4) | a and c | | **Question 20** | | | | | |  |  |  |  |  |  |   Which of the following is the equality operator?   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | = | |  |  | 2) | != | |  |  | 3) | =! | | Description: Correct Response |  | 4) | == |   Question 1 (1 point)  Description: Question 1 Saved  What is the difference between a float and a double?  Question 1 options:   |  |  |  | | --- | --- | --- | |  | 1) | double variables store integers and float variables store floating-point numbers. | |  | 2) | double variables store numbers with smaller magnitude and coarser detail. | |  | 3) | double variables store numbers with larger magnitude and finer detail. | |  | 4) | None of the above. | | **Question 2** | | | |   You can implement validation logic in auto-implemented properties.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 3** |   What is the default value of a reference?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | 0 | |  | |  | 2) | "" | | Description: Correct Response | |  | 3) | null | |  | |  | 4) | default | | **Question 4** | | | | | |  |  |  |  |  |  |   Value types normally represent single pieces of data.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 5** | | | | | |  |  |  |  |  |  |   Which of the following is a C# built-in *reference* type?   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | int | | Description: Correct Response |  | 2) | string | |  |  | 3) | bool | |  |  | 4) | char |     Question 6 (1 point)  Description: Question 6 Saved  It is possible to have only one of the get or set accessors for a variable.  Question 6 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 7 (1 point)  Description: Question 7 Saved  Any classes that are not explicitly placed in a namespace are implicitly placed in the global namespace.  Question 7 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 8** | | | |   In a UML class diagram, the word “property” is in \_\_\_\_\_\_\_\_\_.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | braces [] | |  | |  | 2) | quotes "" | | Description: Correct Response | |  | 3) | guillemets «» | |  | |  | 4) | curly braces {} | | **Question 9** | | | | | |  |  |  |  |  |  |   The compiler provides a default constructor with a string parameter in any class that does not explicitly include a constructor.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 10** |   A \_\_\_\_\_\_\_\_ is called to initialize a new instance of a class.   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | constructor | |  |  | 2) | destructor | |  |  | 3) | creator | |  |  | 4) | new |   Question 11 (1 point)  Description: Question 11 Saved  Constructors can take arguments, but cannot return values.  Question 11 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 12** | | | |   float, double, decimal are always 100% precise.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 13** |   Not all statements that performed tasks are located in method Main.   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | True | |  |  | 2) | False |     Question 14 (1 point)  Description: Question 14 Saved  Method headers contain all of the following except:  Question 14 options:   |  |  |  | | --- | --- | --- | |  | 1) | access modifier | |  | 2) | left brace | |  | 3) | method name | |  | 4) | return type |   Question 15 (1 point)  Description: Question 15 Saved  UML represents instance variables and properties as attributes by listing the attribute name followed by a colon and the attribute type.  Question 15 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 16** | | | |   Constructors are always public.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |     Question 17 (1 point)  Description: Question 17 Saved  Each object of a class is identical except for the values and references it holds.  Question 17 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 18** | | | |   The order in which methods are declared in a class declaration determines when those methods are called at execution time.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 19** |   How can a private variable be accessed?   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | If the private variable is inside the same class as the currently executing code, then you can access it normally using the variable’s name. | |  |  | 2) | Use the property for that variable. | |  |  | 3) | Use a method that is in the same class as the private variable, which can access the variable. | | Description: Correct Response |  | 4) | All of the above |     Question 20 (1 point)  Description: Question 20 Saved  Every C# application is composed of at least one:  Question 20 options:   |  |  |  | | --- | --- | --- | |  | 1) | public method | |  | 2) | data member | |  | 3) | public class declaration | |  | 4) | imported class | | |  |  | |
| |  | | --- | | **Question 1** |   A class diagram helps you design a class, so it is required to show *every* implementation detail.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 2** |   The int type should be used for monetary amounts.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 3** |   Which of the following method headers does the following method call match? Action( “This is an example”, 15, 25.5)   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | Action() | |  | |  | 2) | Action(int x, double y, string z) | |  | |  | 3) | Action(string x , double y, int z) | | Description: Correct Response | |  | 4) | Action(string x, int y, double z) | | **Question 4** | | | | | |  |  |  |  |  |  |   Like methods, constructors can have more than one parameter.   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | True | |  |  | 2) | False |     Question 5 (1 point)  Description: Question 5 Saved  The comma-separated list of values specified in a method call are called \_\_\_\_\_\_\_\_.  Question 5 options:   |  |  |  | | --- | --- | --- | |  | 1) | arguments | |  | 2) | references | |  | 3) | objects | |  | 4) | parameters | | **Question 6** | | | |   Attributes are represented as variables in a class declaration.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 7** | | | | | |  |  |  |  |  |  |   Declaring a class’s instance variables with access modifier private indicates that only the class’s methods should have access to those instance variables.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 8** | | | | | |  |  |  |  |  |  |   Methods can have only zero parameters or one parameter.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |     Question 9 (1 point)  Description: Question 9 Saved  Which of the following terms refers to the data represented by an object’s instance variables?  Question 9 options:   |  |  |  | | --- | --- | --- | |  | 1) | Behaviors | |  | 2) | Attributes | |  | 3) | Methods | |  | 4) | Information | | **Question 10** | | | |   Let z represent a format specifier. How is the format specifier included in WriteLine?   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | { 0:z } | |  | |  | 2) | { z:0 } | |  | |  | 3) | { 0,z } | |  | |  | 4) | { z,0 } | | **Question 11** | | | | | |  |  |  |  |  |  |   A primitive-type variable can store exactly one value at a time, whereas one object can contain many individual pieces of data.   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | True | |  |  | 2) | False |   Question 12 (1 point)  Description: Question 12 Saved  By including only the get accessor, the private variable can be assigned a new value.  Question 12 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 13** | | | |   What keyword is associated with creating objects?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | create | |  | |  | 2) | constructor | | Description: Correct Response | |  | 3) | new | |  | |  | 4) | start | | **Question 14** | | | | | |  |  |  |  |  |  |   Which of the following is a reason for using the get and set accessors?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | To follow a universal standard. | |  | |  | 2) | To allow the class to control the manner in which the data is set or returned. | |  | |  | 3) | To make a program more robust. | | Description: Correct Response | |  | 4) | b and c | |  | |  | 5) | All of the above | | **Question 15** | | | | | |  |  |  |  |  |  |   After defining a property, you must call the get and set accessors to manipulate it.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 16** |   In general, how many classes are there in a program/application?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | zero or one | |  | |  | 2) | 2 | |  | |  | 3) | 2 or more | | Description: Correct Response | |  | 4) | one or more | | **Question 17** | | | | | |  |  |  |  |  |  |   An auto-implemented property may have   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | only a get accessor | |  |  | 2) | only a set accessor | | Description: Correct Response |  | 3) | get and set accessors | |  |  | 4) | none of the above |     Question 18 (1 point)  Description: Question 18 Saved  How would the following method header be represented in a UML class diagram? public void DisplayMessage( string courseName );  Question 18 options:   |  |  |  | | --- | --- | --- | |  | 1) | +DisplayMessage() | |  | 2) | +DisplayMessage( string ) | |  | 3) | +DisplayMessage( courseName: string ) | |  | 4) | +DisplayMessage( courseName ) | | **Question 19** | | | |   The keyword new is used to create a new method of a class.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 20** |   To type a decimal literal, you must type the letter \_\_\_\_ at the end of a real number.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | C or c | |  |  | 2) | E or e | | Description: Correct Response |  | 3) | M or m | |  |  | 4) | T or t | | **Question 1** | | | | |   A transfer of control occurs when:   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | a program changes from input to output, or vice versa | |  | |  | 2) | a logic error occurs in a program | | Description: Correct Response | |  | 3) | a statement other than the next one in the program executes | |  | |  | 4) | None of the above. | | **Question 2** | | | | | |  |  |  |  |  |  |   In an expression containing values of the types int and double, the \_\_\_\_\_\_\_\_ values are \_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_ values for use in the expression.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | int, promoted, double. | |  | |  | 2) | int, demoted, double. | |  | |  | 3) | double, promoted, int. | |  | |  | 4) | double, demoted, int. | | **Question 3** | | | | | |  |  |  |  |  |  |   A selection statement chooses among alternative courses of action.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 4** | | | | | |  |  |  |  |  |  |   Which of the following correctly represents the expression a = a + 3?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | 3a | | Description: Correct Response | |  | 2) | a += 3 | |  | |  | 3) | a + 3 | |  | |  | 4) | None of the above. | | **Question 5** | | | | | |  |  |  |  |  |  |   The body of an if statement executes only if the condition is evaluated as true.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | True | |  | |  | 2) | False | | **Question 6** | | | | | |  |  |  |  |  |  |   When instance variables of the simple types are declared in a class, they're automatically assigned default values unless specified otherwise by the programmer. Variables of type bool, char, and String are given null by default; everything else is assigned 0.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |   Question 7 (1 point)  Description: Question 7 Saved  A set of statements contained in a pair of braces can be placed anywhere in a program at which a single statement can be placed.  Question 7 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 8 (1 point)  Description: Question 8 Saved  In an activity diagram, the merge symbol has the same shape as what other symbol?  Question 8 options:   |  |  |  | | --- | --- | --- | |  | 1) | decision symbol | |  | 2) | action symbol | |  | 3) | transition arrows | |  | 4) | initial state |   Question 9 (1 point)  Description: Question 9 Saved  Which of the following conditions would cause a while statement to stop executing?  Question 9 options:   |  |  |  | | --- | --- | --- | |  | 1) | 3 <= 11 | |  | 2) | !(7 != 14) | |  | 3) | 6 != 9 | |  | 4) | All of the above. |     Question 10 (1 point)  Description: Question 10 Saved  Which of the following is *not* necessarily an error (either a syntax error or a logic error)?  Question 10 options:   |  |  |  | | --- | --- | --- | |  | 1) | Neglecting to include an action in the body of a while statement that will eventually cause the condition to become false. | |  | 2) | Spelling a key word (such as while or if) with a capitalized first letter. | |  | 3) | Using a condition for a while statement that is initially false. | |  | 4) | An infinite loop. | | **Question 11** | | | |   Which of the following is not a benefit of “goto-free programs”?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | easier to debug and modify | | Description: Correct Response | |  | 2) | shorter | |  | |  | 3) | clearer | |  | |  | 4) | more likely to be bug free | | **Question 12** | | | | | |  |  |  |  |  |  |   Which of the following is *not* one of the three phases that a program is typically split into using pseudocode?   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | termination phase | |  |  | 2) | initialization phase | |  |  | 3) | processing phase | | Description: Correct Response |  | 4) | action phase |   Question 13 (1 point)  Description: Question 13 Saved  Unary operators associate from right to left.  Question 13 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 14 (1 point)  Description: Question 14 Saved  It is essential to have an understanding of a problem before writing a program to solve it.  Question 14 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 15** | | | |   When using top-down, stepwise refinement, only the last refinement is a complete specification of the algorithm.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |     Question 16 (1 point)  Description: Question 16 Saved  A                   can be used in repetition structures to indicate the end of data entry.  Question 16 options:   |  |  |  | | --- | --- | --- | |  | 1) | counter | |  | 2) | boolean | |  | 3) | sentinel value | |  | 4) | None of the above. |   Question 17 (1 point)  Description: Question 17 Saved  Pseudocode helps you conceptualize a program during the design process.  Question 17 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 18 (1 point)  Description: Question 18 Saved  Cast operators are used to perform *explicit* conversions between data types.  Question 18 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |      |  | | --- | | **Question 19** |   The cast operator is formed by enclosing a type name in braces.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 20** |   What capability does if…else provide that if does not?   |  |  |  |  | | --- | --- | --- | --- | | Description: Correct Response |  | 1) | the ability to execute actions when the condition is true and false | |  |  | 2) | the ability to nest structures | |  |  | 3) | the ability to stack structures | |  |  | 4) | None of the above. | | |  |  | |
| **Question 1** | | |  |  |
|  |  |  |  |  |

Syntax errors cause a program to fail and terminate prematurely.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

Question 2 (1 point)

Description: Question 2 Saved

A whilestatement allows you to specify that an action should repeat while:

Question 2 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | a specific condition remains false |
|  | 2) | a specific condition remains true |
|  | 3) | a specific condition remains either true or false |
|  | 4) | None of the above. |

Question 3 (1 point)

Description: Question 3 Saved

The increment and decrement operators can be used on expressions such as:  
++(x + 1)

Question 3 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 4** |

The                 operator increases the value of the variable by 1 *after* the original value is used in the expression in which the variable appears.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | preincrement |
| Description: Correct Response |  | 2) | postincrement |
|  |  | 3) | predecrement |
|  |  | 4) | None of the above. |

Question 5 (1 point)

Description: Question 5 Saved

A flag value should *not* be a legitimate data entry value.

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
|  | |  |  |
| **Question 6** | | | |
|  |  |  |  |  |

Pseudocode must be written in an editor capable of understanding it and the language to which it pertains.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 7** |

The best way to use braces is to go back and insert them after all the code has been written.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 8** |

The sequence structure is built into C#. Unless directed otherwise, the computer executes C# statements one after the other in the order in which they are written.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 9** | | | | |
|  |  |  |  |  |  |

What is output by the following C# code segment?  
int temp;  
temp = 180;  
   
while ( temp != 80 )   
{  
if ( temp > 90 )   
{  
Console.Write( "This porridge is too hot! " );  
   
// cool down  
temp = temp – ( temp > 150 ? 100 : 20 );   
} // end if  
else   
{  
if ( temp < 70 )   
{  
Console.Write( "This porridge is too cold! ");  
  
// warm up  
temp = temp + (temp < 50 ? 30 : 20);  
} // end if  
} // end else  
} // end while  
   
if ( temp == 80 )  
Console.WriteLine( "This porridge is just right!" );

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | This porridge is too cold! This porridge is just right! |
| Description: Correct Response | |  | 2) | This porridge is too hot! This porridge is just right! |
|  | |  | 3) | This porridge is just right! |
|  | |  | 4) | None of the above. |
| **Question 10** | | | | |
|  |  |  |  |  |  |

During the 1960s, it became clear that the indiscriminate use of transfers of control was the root of much difficulty experienced by software development groups.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

Question 11 (1 point)

Description: Question 11 Saved

Which of the following is *not* a simple type in C#?

Question 11 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | byte |
|  | | 2) | int |
|  | | 3) | bool |
|  | | 4) | bit |
|  | |  |  |
| **Question 12** | | | |
|  |  |  |  |  |

Which statement is *false*?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Unless directed otherwise, the computer executes C# statements one after the other in the order in which they are written. |
| Description: Correct Response |  | 2) | Activity diagrams normally show the C# code that implements the activity. |
|  |  | 3) | Like pseudocode, activity diagrams help programmers develop and represent algorithms. |
|  |  | 4) | The arrows in the activity diagram represent transitions, which indicate the order in which the actions represented by the action states occur. |

Question 13 (1 point)

Description: Question 13 Saved

Which of the following is not included in an activity diagram for a control statement?

Question 13 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | transition arrows |
|  | 2) | attribute |
|  | 3) | action state |
|  | 4) | decision symbols |

Question 14 (1 point)

Description: Question 14 Saved

Local variables must be \_\_\_\_\_\_\_\_.

Question 14 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | initialized when they are declared. |
|  | 2) | initialized before their values are used in an expression. |
|  | 3) | declared and initialized in two steps. |
|  | 4) | declared at the top of the method. |

Question 15 (1 point)

Description: Question 15 Saved

Which of the following statements about the conditional operator ( ?: ) is *false*?

Question 15 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | The conditional operator is a ternary operator, meaning that it takes three operands. |
|  | | 2) | The first operand is a bool expression. |
|  | | 3) | The second operand is the result value if the condition evaluates to false. |
|  | | 4) | The second operand is the result value if the condition evaluates to true. |
| **Question 16** | | | |
|  |  |  |  |  |

What is typically the most difficult part of solving a problem on a computer?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | deciding what problem needs to be solved |
| Description: Correct Response | |  | 2) | developing the algorithm for the solution |
|  | |  | 3) | producing a C# program from the algorithm |
|  | |  | 4) | None of the above. |
| **Question 17** | | | | |
|  |  |  |  |  |  |

int division may yield a non-int result.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 18** |

Programs can be written, compiled and executed with pseudocode.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

Question 19 (1 point)

Description: Question 19 Saved

Which of the following operators associates from left to right?

Question 19 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | ++ |
|  | | 2) | ?: |
|  | | 3) | %= |
|  | | 4) | / |
| **Question 20** | | | |
|  |  |  |  |  |

The lines in an activity diagram are a graphical representation of an algorithm.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

|  |
| --- |
| **Question 1** |

Assuming a is a bool with a value of false, which of the following evaluates to true?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | !(!a) |
|  | |  | 2) | a |
| Description: Correct Response | |  | 3) | !a |
|  | |  | 4) | None of the above. |
| **Question 2** | | | | |
|  |  |  |  |  |  |

The continue statement is used to undo the effects of the break statement.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 3** |

Counting loops should be controlled with whatever data type most closely reflects the operations taking place, whether that is an int, float or double.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

Question 4 (1 point)

Description: Question 4 Saved

Consider the code segment below.  
  
   
if ( gender == 1 )  
{  
if ( age >= 65 )  
++seniorFemales;  
} // end if  
   
This segment is equivalent to which of the following?

Question 4 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | if ( gender == 1 || age >= 65 ) ++seniorFemales; |
|  | 2) | if ( gender == 1 && age >= 65 ) ++seniorFemales; |
|  | 3) | if ( gender == 1 AND age >= 65 ) ++seniorFemales; |
|  | 4) | if ( gender == 1 OR age >= 65 ) ++seniorFemales; |

Question 5 (1 point)

Description: Question 5 Saved

A default case must be provided for *every* switch statement.

Question 5 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

Question 6 (1 point)

Description: Question 6 Saved

Which of the following operators ensures that *at least one* out of multiple conditions is *true*?

Question 6 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | || |
|  | 2) | && |
|  | 3) | == |
|  | 4) | ^ |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Question 7 (1 point)  Description: Question 7 Saved  In structured programming, the only two ways to combine control statements are stacking and nesting.  Question 7 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 8 (1 point)  Description: Question 8 Saved  When writing a program, it is equally essential to understand the types of building blocks that are available and to employ proven program construction principles.  Question 8 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 9 (1 point)  Description: Question 9 Saved  Short-circuit evaluation is a performance feature related to the evaluation of conditional AND and conditional OR expressions.  Question 9 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | |  |  |   Question 10 (1 point)  Description: Question 10 Saved  The for repetition statement handles the details of counter-controlled repetition.  Question 10 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False |   Question 11 (1 point)  Description: Question 11 Saved  A common logic error known as a(n)                occurs when the programmer incorrectly specifies a conditional operator, such as < instead of <=.  Question 11 options:   |  |  |  | | --- | --- | --- | |  | 1) | fatal error | |  | 2) | off-by-one error | |  | 3) | syntax error | |  | 4) | None of the above. |   Question 12 (1 point)  Description: Question 12 Saved  The header for (int i = 0; i <= 10; i++) will cause i to be incremented:  Question 12 options:   |  |  |  | | --- | --- | --- | |  | 1) | before the body begins execution | |  | 2) | after the body begins to execute, but before it finishes | |  | 3) | after the entire body executes | |  | 4) | None of the above.     |  | | --- | | **Question 13** |   Suppose variable gender is MALE and age equals 60, how is the expression ( gender == FEMALE ) && ( age >= 65 ) evaluated?   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | The condition ( gender == FEMALE ) is evaluated first and the evaluation stops immediately. | |  | |  | 2) | The condition ( age >= 65 ) is evaluated first and the evaluation stops immediately. | |  | |  | 3) | Both conditions are evaluated, from left to right. | |  | |  | 4) | Both conditions are evaluated, from right to left. | | **Question 14** | | | | | |  |  |  |  |  |  |   Infinite loops are caused when the loop-continuation condition in a while, for or do…while statement never becomes *true*.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 15** |   The C# operator ^ can be used for exponentiation.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |     Question 16 (1 point)  Description: Question 16 Saved  Which of the following statements about the break statement is *false*?  Question 16 options:   |  |  |  | | --- | --- | --- | |  | 1) | The break statement is used to exit a repetition statement early and continue execution after the loop. | |  | 2) | A break statement can only break out of an immediately enclosing while, for, do…while or switch statement. | |  | 3) | The break statement, when executed in a while, for or do…while, skips the remaining statements in the loop body and proceeds with the next iteration of the loop. | |  | 4) | Common uses of the break statement are to escape early from a loop or to skip the remainder of a switch. |   Question 17 (1 point)  Description: Question 17 Saved  Which statement below is *false*?  Question 17 options:   |  |  |  | | --- | --- | --- | |  | 1) | Structured programming produces programs that are easier to test. | |  | 2) | Structured programming requires four forms of control. | |  | 3) | Structured programming produces programs that are easier to modify | |  | 4) | Structured programming promotes simplicity. | | **Question 18** | | | |   The break statement terminates a program.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 19** |   Which of the following is *syntactically* incorrect?   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | for (int i = 1; i < 10; ) | |  | |  | 2) | for ( ; i == 3; ) | | Description: Correct Response | |  | 3) | for (i == 3) | |  | |  | 4) | None of the above. | | **Question 20** | | | | | |  |  |  |  |  |  |   Which of the following is an infinite loop?   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | for (int i = 20; i >= 10; i--) | |  |  | 2) | for (int i = 1; i <= 10; i++) | | Description: Correct Response |  | 3) | for (int i = 10; i <= 20; i--) | |  |  | 4) | for (int i = 20; i >= 50; i++) |      |  | | --- | | **Question 1** |   The                rule says that any rectangle (action) in an activity diagram can be replaced by two rectangles with round edges.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | nesting | |  |  | 2) | selection | | Description: Correct Response |  | 3) | stacking | |  |  | 4) | None of the above. |   Question 2 (1 point)  Description: Question 2 Saved  A semicolon after the word do in a do…while statement will cause an infinite loop.  Question 2 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 3** | | | |   A case that consists of multiple lines *must* be enclosed in braces.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 4** |   Control-statement stacking is the process of:   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | placing control statements within each other | | Description: Correct Response | |  | 2) | placing control statements one after another | |  | |  | 3) | reducing the number of statements required by combining statements | |  | |  | 4) | None of the above. | | **Question 5** | | | | | |  |  |  |  |  |  |   A loop that counts down from 10 to 1 using control variable counter should use the loop-continuation condition counter <= 1.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |   Question 6 (1 point)  Description: Question 6 Saved  Only the statements for one case can be executed in one switch statement.  Question 6 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 7** | | | |   The initialization expression, condition and increment expression in a for statement’s header must be separated with commas.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 8** |   The do…while repetition statement tests the condition          the body of the loop executes.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | before | |  | |  | 2) | while | | Description: Correct Response | |  | 3) | after | |  | |  | 4) | None of the above. | | **Question 9** | | | | | |  |  |  |  |  |  |   The first line of the for statement is sometimes called the:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Description: Correct Response | |  | 1) | for statement header | |  | |  | 2) | increment header | |  | |  | 3) | repetition header | |  | |  | 4) | None of the above. | | **Question 10** | | | | | |  |  |  |  |  |  |   Which of the following is *not* a control statement in C#?   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | do…while | | Description: Correct Response |  | 2) | loop | |  |  | 3) | switch | |  |  | 4) | for |   Question 11 (1 point)  Description: Question 11 Saved  The effects of break and continue statements can be achieved by structured programming techniques.  Question 11 options:   |  |  |  | | --- | --- | --- | |  | 1) | True | |  | 2) | False | | **Question 12** | | | |   A case with no statements is called an empty case, and only requires the break statement.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 13** |   The stacking and nesting rules must be applied in a specific order.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |   Question 14 (1 point)  Description: Question 14 Saved  The              statement, when executed in a for loop, will terminate the loop.  Question 14 options:   |  |  |  | | --- | --- | --- | |  | 1) | continue | |  | 2) | break | |  | 3) | next | |  | 4) | None of the above. | | **Question 15** | | | |   The loop body of a do…while statement always executes \_\_\_\_\_\_\_\_\_\_.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | |  | 1) | zero times | | Description: Correct Response | |  | 2) | at least once | |  | |  | 3) | more than once | |  | |  | 4) | undeterminable | | **Question 16** | | | | | |  |  |  |  |  |  |   Counter-controlled repetition requires only a control variable, an initial value for the control variable and an increment or decrement.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False | | [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.179-7View Feedback](javascript://) | | | | |  |  | | --- | | **Question 17** |   for statements cannot be represented as while statements.   |  |  |  |  | | --- | --- | --- | --- | |  |  | 1) | True | | Description: Correct Response |  | 2) | False |   Question 18 (1 point)  Description: Question 18 Saved  If a while condition is never true, the body will never execute.  Question 18 options:   |  | | --- | |  | | |  |  |

**Question 1 (1 point)**

Description: Question 1 Saved

Elements can be added at any location within an array.

Question 1 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 2** | | | |
|  |  |  |  |  |

A List< T > can automatically resize itself to accommodate additional elements.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 3 (1 point)**

Description: Question 3 Saved

The range variable for the LINQ query must be of type IEnumerable.

Question 3 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

A type parameter specifies the type that must be used.

Question 4 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 5 (1 point)**

Description: Question 5 Saved

In a LINQ query, the where clause specifies          .

Question 5 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | the data source |
|  | 2) | where to put the data |
|  | 3) | the condition(s) for including the item |
|  | 4) | the Location property d) the data type |

**Question 6 (1 point)**

Description: Question 6 Saved

If multiple properties are listed in the select clause, the results will be of type SelectedList.

Question 6 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 7** |

LINQ allows you to select items from a data source that meet a set of conditions.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 8 (1 point)**

Description: Question 8 Saved

A generic method does not need an object of the class in order to be executed.

Question 8 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 9 (1 point)**

Description: Question 9 Saved

Unlike arrays, Lists do not resize automatically.

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 10 (1 point)**

Description: Question 10 Saved

A List< T > is similar to an array, but can also \_\_\_\_\_\_\_\_\_.

Question 10 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | dynamically resize |
|  | | 2) | add items anywhere in the List< T > |
|  | | 3) | contain objects of any one type |
|  | | 4) | Both a and b |
| **Question 11** | | | |
|  |  |  |  |  |

A generic method is a shorter way to express overloaded methods.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 12** | | | | |
|  |  |  |  |  |  |

LINQ is used to query collections in exactly the same way it’s used to query arrays.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 13 (1 point)**

Description: Question 13 Saved

A LINQ query is executed when it is created.

Question 13 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 14 (1 point)**

Description: Question 14 Saved

The Capacity property indicates the number of elements stored in the List< T >.

Question 14 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 15** | | | |
|  |  |  |  |  |

A let clause is used to create \_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | a method within a LINQ query |
|  | |  | 2) | a subquery |
| Description: Correct Response | |  | 3) | a new range variable |
|  | |  | 4) | None of the above |
| **Question 16** | | | | |
|  |  |  |  |  |  |

Collections of type List< T > can hold objects of what type?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | only other lists |
|  | |  | 2) | only integers |
| Description: Correct Response | |  | 3) | objects of any one type |
|  | |  | 4) | None of the above |
| **Question 17** | | | | |
|  |  |  |  |  |  |

The objects returned when using multiple properties in a select clause are objects of an anonymous type.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 18** | | | | |
|  |  |  |  |  |  |

The international standard for querying relational databases is called:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | XML |
| Description: Correct Response | |  | 2) | SQL |
|  | |  | 3) | HTTP |
|  | |  | 4) | LINQ |
| **Question 19** | | | | |
|  |  |  |  |  |  |

What method returns the number of items in LINQ query result q?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | q.Length |
|  | |  | 2) | q.Size |
|  | |  | 3) | q.getUpperBound |
| Description: Correct Response | |  | 4) | q.Count |
| **Question 20** | | | | |
|  |  |  |  |  |  |

The .NET collection classes provide flexible, efficient alternatives to arrays.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 1 (1 point)**

Description: Question 1 Saved

Visual C# requires you to write SQL to query data sources.

Question 1 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 2 (1 point)**

Description: Question 2 Saved

The range variable is implicitly defined in the \_\_\_\_\_ clause and used to produce results in the \_\_\_\_\_\_ clause

Question 2 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | where, put |
|  | | 2) | from, put |
|  | | 3) | from, select |
|  | | 4) | where, select |
|  | | 5) | in, foreach |
| **Question 3** | | | |
|  |  |  |  |  |

Which of the following statements about LINQ is not true?

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | A new LINQ query must be used when changes are made to the data source. |
|  |  | 2) | A LINQ query does not need to have a let clause |
|  |  | 3) | A LINQ query returns an IEnumerable object |
|  |  | 4) | LINQ stands for Language Integrated Query. |

**Question 4 (1 point)**

Description: Question 4 Saved

In a LINQ query, the where clause specifies          .

Question 4 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | the data source |
|  | 2) | where to put the data |
|  | 3) | the condition(s) for including the item |
|  | 4) | the Location property d) the data type |

**Question 5 (1 point)**

Description: Question 5 Saved

A List< T > is similar to an array, but can also \_\_\_\_\_\_\_\_\_.

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | dynamically resize |
|  | | 2) | add items anywhere in the List< T > |
|  | | 3) | contain objects of any one type |
|  | | 4) | Both a and b |
| **Question 6** | | | |
|  |  |  |  |  |

A type parameter specifies the type that must be used.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 7** |

If multiple properties are listed in the select clause, the results will be of type SelectedList.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 8** |

Unlike arrays, Lists do not resize automatically.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | True |
| Description: Correct Response | |  | 2) | False |
| **Question 9** | | | | |
|  |  |  |  |  |  |

The .NET collection classes provide flexible, efficient alternatives to arrays.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |
|  |  |  |  |  |  |

A generic method does not need an object of the class in order to be executed.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 11** |

A LINQ query is executed when it is created.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 12** |

Collections of type List< T > can hold objects of what type?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | only other lists |
|  | |  | 2) | only integers |
| Description: Correct Response | |  | 3) | objects of any one type |
|  | |  | 4) | None of the above |
| **Question 13** | | | | |
|  |  |  |  |  |  |

What method returns the number of items in LINQ query result q?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | q.Length |
|  | |  | 2) | q.Size |
|  | |  | 3) | q.getUpperBound |
| Description: Correct Response | |  | 4) | q.Count |
| **Question 14** | | | | |
|  |  |  |  |  |  |

LINQ allows you to select items from a data source that meet a set of conditions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 15** | | | | |
|  |  |  |  |  |  |

LINQ is used to query collections in exactly the same way it’s used to query arrays.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 16** | | | | |
|  |  |  |  |  |  |

Elements can be added at any location within an array.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 17** |

A let clause is used to create \_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | a method within a LINQ query |
|  | |  | 2) | a subquery |
| Description: Correct Response | |  | 3) | a new range variable |
|  | |  | 4) | None of the above |
| **Question 18** | | | | |
|  |  |  |  |  |  |

The international standard for querying relational databases is called:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | XML |
| Description: Correct Response | |  | 2) | SQL |
|  | |  | 3) | HTTP |
|  | |  | 4) | LINQ |
| **Question 19** | | | | |
|  |  |  |  |  |  |

A generic method is a shorter way to express overloaded methods.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 20** | | | | |
|  |  |  |  |  |  |

The range variable for the LINQ query must be of type IEnumerable.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

|  |
| --- |
| **Question 1** |

Which of the following is *false*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | A static method or property must be used to access private static instance variables. |
|  | |  | 2) | A static method has no this reference. |
|  | |  | 3) | A static method can be accessed even when no objects of its class have been instantiated. |
| Description: Correct Response | |  | 4) | A static method can call instance methods directly. |
| **Question 2** | | | | |
|  |  |  |  |  |  |

Attempting to overload a constructor with another constructor that has the exact same signature (name and parameters) is a compilation error.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 3** | | | | |
|  |  |  |  |  |  |

Instances of a class are called class variables.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 4** |

Which of the following should usually be private?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | methods |
|  | |  | 2) | constructors |
| Description: Correct Response | |  | 3) | variables |
|  | |  | 4) | All of the above |
| **Question 5** | | | | |
|  |  |  |  |  |  |

Objects can hide their implementation from other objects.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 6** | | | | |
|  |  |  |  |  |  |

Which of the following describes a static variable?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | a variable with one copy shared by all class objects |
|  | |  | 2) | a variable whose value may not be changed |
|  | |  | 3) | all of the above |
|  | |  | 4) | None of the above. |
| **Question 7** | | | | |
|  |  |  |  |  |  |

Abstract Data Types:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | elevate the importance of data |
|  | |  | 2) | are only approximations or models of real-world concepts and behaviors |
|  | |  | 3) | capture two notions, data representation and operations |
| Description: Correct Response | |  | 4) | All of the above |
| **Question 8** | | | | |
|  |  |  |  |  |  |

How many parameters does the default constructor that C# creates for you have?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | 3 |
|  | |  | 2) | 1 |
| Description: Correct Response | |  | 3) | 0 |
|  | |  | 4) | varies |
| **Question 9** | | | | |
|  |  |  |  |  |  |

The classes, variables and methods in a program are displayed in a hierarchical structure in Class View.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |
|  |  |  |  |  |  |

Which of the following statements is *true*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | Methods and instance variables can both be either public or private. |
|  | |  | 2) | Information hiding is achieved by restricting access to class members via keyword public. |
|  | |  | 3) | The public members of a class are not directly accessible to the client of a class. |
|  | |  | 4) | None of the above is true. |
| **Question 11** | | | | |
|  |  |  |  |  |  |

Composition is sometimes referred to as a(n) \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | is-a relationship |
| Description: Correct Response | |  | 2) | has-a relationship |
|  | |  | 3) | have-a relationship |
|  | |  | 4) | one-to-many relationship |
| **Question 12** | | | | |
|  |  |  |  |  |  |

Developers use the Object Browser to learn about the functionality provided by a specific class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 13** | | | | |
|  |  |  |  |  |  |

C# invokes the appropriate constructor by matching the number, types and order of the parameters in the constructor call to those in each constructor definition.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 14** | | | | |
|  |  |  |  |  |  |

A program contains a copy of a static variable for each object that's instantiated.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 15** |

A class cannot have references to objects of other classes as members.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 16** |

Constructors:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | initialize instance variables |
|  | |  | 2) | when overloaded, can have identical argument lists |
|  | |  | 3) | when overloaded, are selected by number and types of parameters |
| Description: Correct Response | |  | 4) | a and c |
| **Question 17** | | | | |
|  |  |  |  |  |  |

Instance variables or methods declared with the                 modifier are accessible only in that class definition.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | protected |
|  | |  | 2) | static |
| Description: Correct Response | |  | 3) | private |
|  | |  | 4) | None of the above. |
| **Question 18** | | | | |
|  |  |  |  |  |  |

An object initializer list cannot be empty.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 19** | | | | |
|  |  |  |  |  |  |

The data components of a class are called instance variables.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 20** | | | | |
|  |  |  |  |  |  |

The compiler will create a default constructor for a class even if you already declared a constructor(s).

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |

|  |
| --- |
| **Question 1** |

A constructor may *not* have a return value.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 2** | | | | |
|  |  |  |  |  |  |

C# is extensible because altering the base language is as simple as it's easy to extend via new types.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 3** |

Variables that are static have class scope.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 4 (1 point)**

Description: Question 4 Saved

Attempting to modify a readonly instance variable after it's initialized is a fatal execution-time error.

Question 4 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 5** | | | |
|  |  |  |  |  |

Stacks are commonly referred to as                data structures.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | first-in, last-out |
|  | |  | 2) | first-in, first-out |
| Description: Correct Response | |  | 3) | last-in, first-out |
|  | |  | 4) | None of the above. |
| **Question 6** | | | | |
|  |  |  |  |  |  |

Every class must have at least one constructor.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 7** | | | | |
|  |  |  |  |  |  |

An attempt by a method which is *not* a member of a particular class to access a private member of that class is a fatal runtime error.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 8** |

A class’s                  initializes members of that class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | constructor |
|  | |  | 2) | utility method |
|  | |  | 3) | access modifier |
|  | |  | 4) | None of the above. |
| **Question 9** | | | | |
|  |  |  |  |  |  |

The garbage collector looks for objects with no values.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

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| **Question 10** |

Only the first constructor for a class is defined without a return value. Subsequent constructors have the return type void.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 11** |

Instance variables declared readonly do not or cannot:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | use the principle of least privilege |
|  |  | 2) | be initialized |
| Description: Correct Response |  | 3) | be modified once the object is constructed |
|  |  | 4) | cause syntax errors if used as a left-hand value |

**Question 12 (1 point)**

Description: Question 12 Saved

Variables declared within class methods are called instance variables.

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 13** |

Which statement is *false*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | The compiler always creates a default constructor for a class. |
|  | |  | 2) | If a class has constructors, but none of the public constructors are parameterless, and a program attempts to call a parameterless constructor to initialize an object of the class, a compilation error occurs. |
|  | |  | 3) | A constructor can be called with no arguments only if the class does not have any constructors or if the class has a public parameterless constructor. |
|  | |  | 4) | Parameterless constructors do not have any arguments. |
| **Question 14** | | | | |
|  |  |  |  |  |  |

Only certain objects have a this reference.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

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| **Question 15** |

Composition:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Is a form of software reuse. |
|  | |  | 2) | Is using an object reference as a class member. |
|  | |  | 3) | Is a good design practice. |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 16** | | | | |
|  |  |  |  |  |  |

Having a this reference allows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | A method to refer explicitly to the instance variables and other methods of the object on which the method was called. |
|  | |  | 2) | A method to refer implicitly to the instance variables and other methods of the object on which the method was called. |
|  | |  | 3) | An object to reference itself. |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 17** | | | | |
|  |  |  |  |  |  |

Clients are normally allowed to manipulate queue structures directly.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

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| --- |
| **Question 18** |

                 displays the variables and methods for all classes in a project.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | Class View |
|  | |  | 2) | Object Browser |
|  | |  | 3) | Design View |
|  | |  | 4) | None of the above. |
| **Question 19** | | | | |
|  |  |  |  |  |  |

A constructor *cannot*:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | be overloaded. |
|  | |  | 2) | initialize variables to their defaults. |
| Description: Correct Response | |  | 3) | specify return types or return values. |
|  | |  | 4) | have the same name as the class. |
| **Question 20** | | | | |
|  |  |  |  |  |  |

Every class inherits directly or indirectly from class \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Inheritor |
|  |  | 2) | Base |
|  |  | 3) | Super |
| Description: Correct Response |  | 4) | object |

|  |
| --- |
| **Question 1** |

When a base class method is overridden in a derived class, it is common to have the derived class version call the base class version and do some additional work.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 2** | | | | |
|  |  |  |  |  |  |

To enhance performance and reduce errors, it's a good idea to make derived classes larger than they need to be.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 3** |

Multiple inheritance, widely used in C#, is the process of inheriting from more than one class.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 4** |

Which statement is *true* when a base class has protected instance variables?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | A derived class object can assign an invalid value to the base class’s instance variables, thus leaving the object in an inconsistent state. |
|  | |  | 2) | Derived class methods are more likely to be written so that they depend on the base class’s data implementation. |
|  | |  | 3) | We may need to modify all the derived classes of the base class if the base class implementation changes. |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 5** | | | | |
|  |  |  |  |  |  |

Using protected instance variables can cause derived-class methods to be written to depend on base-class implementation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 6** | | | | |
|  |  |  |  |  |  |

Inheritance is the process of building a class with object references of other classes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 7** |

Which of the following classes is the root of the class hierarchy?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | System.object |
|  | |  | 2) | Point |
|  | |  | 3) | ToString |
|  | |  | 4) | None of the above |
| **Question 8** | | | | |
|  |  |  |  |  |  |

Inheritance preserves the integrity of a base class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 9** | | | | |
|  |  |  |  |  |  |

When a derived class constructor calls its base class constructor, what happens if the base class’s constructor does not assign a value to an instance variable?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | a syntax error occurs |
|  | |  | 2) | a compile-time error occurs |
|  | |  | 3) | a run-time error occurs |
| Description: Correct Response | |  | 4) | the program compiles and runs correctly because the instance variables are initialized to their default values |
| **Question 10** | | | | |
|  |  |  |  |  |  |

When a derived-class member overrides a base-class member, the base-class member can be accessed from the derived-class by using the keyword                       .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | base |
|  | |  | 2) | top |
|  | |  | 3) | super |
|  | |  | 4) | None of the above |
| **Question 11** | | | | |
|  |  |  |  |  |  |

A class that inherits from another class is referred to as the derived class.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 12 (1 point)**

Description: Question 12 Saved

A base class may have only one derived class.

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 13** |

All classes in C# have object as either a direct or indirect base class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 14** | | | | |
|  |  |  |  |  |  |

A class inherited from two or more levels up in the hierarchy is known as a .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | indirect base class |
|  | |  | 2) | direct base class |
|  | |  | 3) | superclass |
|  | |  | 4) | None of the above |
| **Question 15** | | | | |
|  |  |  |  |  |  |

Identify which of the following examples could be considered a base class for the Computer class?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | machine |
|  | |  | 2) | hard-drive |
|  | |  | 3) | software |
|  | |  | 4) | keyboard |
| **Question 16** | | | | |
|  |  |  |  |  |  |

private fields of a base class can be accessed in a derived class

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | by calling private methods declared in the base class |
| Description: Correct Response | |  | 2) | by calling public or protected methods declared in the base class |
|  | |  | 3) | directly |
|  | |  | 4) | All of the above |
| **Question 17** | | | | |
|  |  |  |  |  |  |

A derived class is often larger and more general than its base class.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 18** |

Base class methods with this level of access cannot be called from derived classes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | private |
|  | |  | 2) | public |
|  | |  | 3) | protected |
|  | |  | 4) | package |
| **Question 19** | | | | |
|  |  |  |  |  |  |

When creating derived classes, you must use discretion in choosing the proper base class. Ideally, the base class will not contain superfluous capabilities or information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 20** | | | | |
|  |  |  |  |  |  |

The default Equals implementation determines:

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | whether two references refer to the same object in memory. |
|  |  | 2) | whether two references have the same type. |
|  |  | 3) | whether two objects have the same instance variables. |
|  |  | 4) | whether two objects have the same instance variable values. |

|  |
| --- |
| **Question 1** |

A key to improving the software development process is encouraging software reuse.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 2** | | | | |
|  |  |  |  |  |  |

The base reference may be "chained" to traverse further up in the class hierarchy.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 3** |

Constructors are *not* inherited.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 4** | | | | |
|  |  |  |  |  |  |

How can a derived class call a base class constructor?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | implicitly |
|  | |  | 2) | explicitly |
| Description: Correct Response | |  | 3) | a and b |
|  | |  | 4) | the derived class cannot call the base class constructor |
| **Question 5** | | | | |
|  |  |  |  |  |  |

An object of one class cannot be an object of another class.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 6** |

To avoid duplicating code (and possibly errors), use \_\_\_\_\_\_\_\_, rather than \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | inheritance, the “copy-and-paste” approach. |
|  | |  | 2) | the “copy-and-past” approach, inheritance. |
|  | |  | 3) | a class that explicitly extends object, a class that does not extend object. |
|  | |  | 4) | a class that does not extend object, a class that explicitly extends object. |
| **Question 7** | | | | |
|  |  |  |  |  |  |

Consider the classes below, declared in the same file:  
class A   
{  
int a;  
public A()   
{  
a = 7;  
}  
}  
   
class B : A   
{  
int b;  
public B()   
{  
b = 8;  
}   
}  
   
Which of the statements below is not true?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Both variables a and b are instance variables. |
|  | |  | 2) | After the constructor for class B is executed, the variable a will have the value 7. |
|  | |  | 3) | After the constructor for class B is executed, the variable b will have the value 8. |
| Description: Correct Response | |  | 4) | A reference to class A can be treated as a reference to class B. |
| **Question 8** | | | | |
|  |  |  |  |  |  |

Inheritance is represented by a(n) \_\_\_\_\_\_\_\_ relationship.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | "uses" |
| Description: Correct Response | |  | 2) | "is-a" |
|  | |  | 3) | "has-a" |
|  | |  | 4) | None of the above. |
| **Question 9** | | | | |
|  |  |  |  |  |  |

A base class is designed by factoring out similarities among a set of classes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |
|  |  |  |  |  |  |

Which of the following statements is *false*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | A derived class is generally larger than its base class. |
| Description: Correct Response | |  | 2) | A base class object is a derived class object. |
|  | |  | 3) | The class following the “:”in a class declaration is the direct base class of the class being declared. |
|  | |  | 4) | C# does not support multiple inheritance. |
| **Question 11** | | | | |
|  |  |  |  |  |  |

An advantage of inheritance is that:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | all methods can be inherited |
|  | |  | 2) | all instance variables can be uniformly accessed by base classes and derived classes |
| Description: Correct Response | |  | 3) | Objects of a derived class can be treated like objects of their base class |
|  | |  | 4) | None of the above. |
| **Question 12** | | | | |
|  |  |  |  |  |  |

Derived classes provide the functionality and features inherited by base classes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 13** |

Members of a base class that are private are not inherited by derived classes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 14** |

If a base class constructor is overridden, the original constructor can no longer be called explicitly by the derived class.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 15** |

Every object of a base class is an object of that class’s derived classes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 16** |

The first task of any derived-class constructor is to call its base-class constructor.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 17** | | | | |
|  |  |  |  |  |  |

Which of the following is *not* a base/derived class relationship?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Ford/Taurus |
|  | |  | 2) | University/Boston University |
| Description: Correct Response | |  | 3) | Sailboat/Tugboat |
|  | |  | 4) | Country/USA |
| **Question 18** | | | | |
|  |  |  |  |  |  |

A method must be declared \_\_\_\_\_\_\_\_\_\_ for it to be overridden by derived classes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | overrides |
|  | |  | 2) | overridable |
| Description: Correct Response | |  | 3) | virtual |
|  | |  | 4) | None of the above |
| **Question 19** | | | | |
|  |  |  |  |  |  |

Which of the following statements are *true*?  
A We can use inheritance to customize existing software.  
B A base class specifies commonality.  
C A base class can be modified without modifying derived classes  
D A derived class can be modified without modifying its base class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | All of the above |
|  | |  | 2) | None of the above |
|  | |  | 3) | A, B and C |
|  | |  | 4) | A, B and D |
| **Question 20** | | | | |
|  |  |  |  |  |  |

Every object in C# has at least seven methods: Equals, Finalize, GetHashCode, GetType, MemberwiseClone, ReferenceEquals, and ToString.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

|  |
| --- |
| **Question 1** |

A class that implements an interface may not act as a base class for other classes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 2** |

Operators should be overloaded to perform actions similar to those that they normally perform on objects of built-in types.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 3** | | | | |
|  |  |  |  |  |  |

An abstract base classes can be used to declare references.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 4** | | | | |
|  |  |  |  |  |  |

An abstract class cannot have instance data and non-abstract methods.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 5** |

Objects of abstract base classes can be instantiated.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 6** |

All methods in an abstract class are inherently abstract.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 7** |

Polymorphism enables you to:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | program in the general. |
|  | |  | 2) | program in the specific. |
|  | |  | 3) | absorb attributes and behavior from previous classes. |
|  | |  | 4) | hide information from the user. |
| **Question 8** | | | | |
|  |  |  |  |  |  |

Polymorphism allows a programmer to command a wide variety of objects even if the programmer does not know the objects’ types.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 9** | | | | |
|  |  |  |  |  |  |

The keyword sealed is applied to methods and classes to:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | prevent overriding and inheritance |
|  | |  | 2) | guarantee an implementation exists |
|  | |  | 3) | specify a class is concrete |
|  | |  | 4) | None of the above. |
| **Question 10** | | | | |
|  |  |  |  |  |  |

Operator is returns true if two matching types are being compared.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 11** | | | | |
|  |  |  |  |  |  |

Which of the following characteristics can be used to create an interface for a file, a cat and a house?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | door |
|  | |  | 2) | tail |
| Description: Correct Response | |  | 3) | age |
|  | |  | 4) | None of the above. |
| **Question 12** | | | | |
|  |  |  |  |  |  |

If an application needs to perform a derived-class-specific operation on a derived class object reference by a base class variable, the application must first cast the base class reference to a derived class reference through a technique known as \_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | downcasting |
|  | |  | 2) | upcasting |
|  | |  | 3) | decreasecasting |
|  | |  | 4) | increasecasting |
| **Question 13** | | | | |
|  |  |  |  |  |  |

Constants declared in an interface are implicitly \_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | private |
| Description: Correct Response | |  | 2) | static |
|  | |  | 3) | abstract |
|  | |  | 4) | All of the above. |
| **Question 14** | | | | |
|  |  |  |  |  |  |

Polymorphism allows classes to be added with little or no modifications to the generic portion of a program.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 15** | | | | |
|  |  |  |  |  |  |

Which of the following statements about abstract base classes is *true*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | abstract base classes *may* contain data. |
|  | |  | 2) | abstract base classes *may not* contain implementations of methods. |
|  | |  | 3) | abstract base classes *must* declare all methods as abstract. |
|  | |  | 4) | abstract base classes must declare all data members not given values as abstract. |
| **Question 16** | | | | |
|  |  |  |  |  |  |

\_\_\_\_\_\_\_\_ code is the process by which the compiler replaces method calls with the code of a method to improve performance.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Debugging |
| Description: Correct Response | |  | 2) | Inlining |
|  | |  | 3) | Compiling |
|  | |  | 4) | None of the above. |
| **Question 17** | | | | |
|  |  |  |  |  |  |

Methods that overload binary operators must take two arguments.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 18** | | | | |
|  |  |  |  |  |  |

All methods in a sealed class must be explicitly declared sealed.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

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| --- |
| **Question 19** |

The use of polymorphism helps promote software extensibility.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 20** | | | | |
|  |  |  |  |  |  |

For which of the following would polymorphism *not* provide a clean solution?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | A billing program where there's a variety of clients who are billed with different fee structures. |
|  |  | 2) | A maintenance log program where a variety of machine data is collected and maintenance schedules are produced for each machine based on the data collected. |
| Description: Correct Response |  | 3) | A program to compute a 5% savings account interest for a variety of clients. |
|  |  | 4) | An IRS program that maintains information on a variety of taxpayers and determines who to audit based on criteria for classes of taxpayers. |

|  |
| --- |
| **Question 1** |

Unfortunately, polymorphic programs make it difficult to add new capabilities to a system.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

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| --- |
| **Question 2** |

If the base class contains only abstract method declarations, the base class is used for:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | implementation inheritance. |
| Description: Correct Response | |  | 2) | interface inheritance. |
|  | |  | 3) | Both. |
|  | |  | 4) | Neither. |
| **Question 3** | | | | |
|  |  |  |  |  |  |

All static and private methods are implicitly sealed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 4** | | | | |
|  |  |  |  |  |  |

Which declaration declares abstract method method1 in abstract class Class1 (method1 returns an **i**n**t** and takes no arguments)?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | public int method1(); |
|  | |  | 2) | public int abstract method1(); |
| Description: Correct Response | |  | 3) | public abstract int method1(); |
|  | |  | 4) | public int nonfinal method1(); |
| **Question 5** | | | | |
|  |  |  |  |  |  |

Declaring an interface protected allows for extra security precautions.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 6** |

The abstract keyword has the same effect as the virtual keyword.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 7** |

Operator overloading is the process of:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | enabling C#’s operators to work with class objects |
|  | |  | 2) | using operators to create new classes |
|  | |  | 3) | using operators to specify which versions of overloaded methods to use |
|  | |  | 4) | None of the above. |
| **Question 8** | | | | |
|  |  |  |  |  |  |

Polymorphism allows for specifics to be dealt with during:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | execution |
|  | |  | 2) | compilation |
|  | |  | 3) | programming |
|  | |  | 4) | debugging |
| **Question 9** | | | | |
|  |  |  |  |  |  |

Consider the abstract class below:  
public abstract class Foo  
{  
private int a;  
public int b;  
  
public Foo( int aVal, int bVal )  
{  
a = aVal;  
b = bVal;  
} // end Foo constructor  
  
public abstract int calculate();  
} // end class Foo  
Any concrete subclass that extends class Foo:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Must implement a method called calculate. |
|  | |  | 2) | Will not be able to access the instance variable a. |
|  | |  | 3) | Will not be able to instantiate an object of class Foo. |
| Description: Correct Response | |  | 4) | All of the above. |
| **Question 10** | | | | |
|  |  |  |  |  |  |

The purpose of an interface is to:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | provide similar objects with the same functionality, even though each will implement the functionality differently |
| Description: Correct Response | |  | 2) | provide different types of objects with the same functionality, even though each will implement the functionality differently |
|  | |  | 3) | provide default implementations of methods and properties |
|  | |  | 4) | None of the above. |
| **Question 11** | | | | |
|  |  |  |  |  |  |

An interface is used when there's a default implementation to inherit.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 12** |

An interface can not provide properties with get and set accessors.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 13** |

If a derived class reference is assigned to a base class variable, the variable must be cast back to the derived class before any derived class methods can be called with it.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 14** | | | | |
|  |  |  |  |  |  |

Which is used to specify that a class will be implementing an interface?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | using |
| Description: Correct Response | |  | 2) | : |
|  | |  | 3) | implements |
|  | |  | 4) | extends. |
| **Question 15** | | | | |
|  |  |  |  |  |  |

The major drawback to polymorphically designed programs is that they do not take into account the future addition or deletion of classes.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 16** |

If a class leaves one method in an interface undeclared, the class is implicitly declared by C# as an abstract class.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 17** |

Declaring a method sealed me*Answer:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | it will prepare the object for garbage collection |
|  | |  | 2) | it cannot be accessed from outside its class |
|  | |  | 3) | it cannot be overloaded |
| Description: Correct Response | |  | 4) | it cannot be overridden |
| **Question 18** | | | | |
|  |  |  |  |  |  |

Classes and methods are declared sealed for all of the following reasons, *except*:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | sealed methods allow inlining the code. |
|  | |  | 2) | sealed methods and classes prevent further inheritance. |
| Description: Correct Response | |  | 3) | sealed methods are static. |
|  | |  | 4) | sealed methods can improve performance. |
| **Question 19** | | | | |
|  |  |  |  |  |  |

When used correctly, polymorphism will never require changes to be made to any part of the program.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 20** |

Abstract classes can provide data *and* services for objects.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

|  |
| --- |
| **Question 1** |

All exceptions cause the program to terminate when thrown.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 2** |

After a finally block has finished executing:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | control proceeds to the first statement after the finally block. |
|  | |  | 2) | control returns to the throw point. |
|  | |  | 3) | the application exits. |
|  | |  | 4) | control proceeds to the first statement after the last catch block. |
| **Question 3** | | | | |
|  |  |  |  |  |  |

Resource de-allocation should be done explicitly in the finally block.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 4** | | | | |
|  |  |  |  |  |  |

C# throws an IntegerArithmeticException when division by zero in integer arithmetic occurs.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 5** |

Which of the following statements is *true*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | The throw statement is used to throw an exception. |
|  | |  | 2) | The throw statement is used to specify that a method will throw an exception. |
|  | |  | 3) | The throw statement is used to access an exception parameter. |
|  | |  | 4) | All of the above. |
| **Question 6** | | | | |
|  |  |  |  |  |  |

Runtime exceptions can usually be fixed by eliminating coding errors.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 7** | | | | |
|  |  |  |  |  |  |

An exception is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | a problem a computer has during construction |
| Description: Correct Response | |  | 2) | a problem that a program has during runtime |
|  | |  | 3) | something that the computer does not understand |
|  | |  | 4) | the way a computer signals to the users that it is about to terminate |
| **Question 8** | | | | |
|  |  |  |  |  |  |

According to Microsoft, programmer-defined exceptions should contain 3 constructors:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | a default constructor, a constructor that receives a string for the error message and a constructor that receives an Exception argument of the inner exception object |
| Description: Correct Response | |  | 2) | a default constructor, a constructor that receives a string and a constructor that receives both a string and an exception |
|  | |  | 3) | a constructor that receives a string, a constructor that receives an exception and a constructor that receives both |
|  | |  | 4) | a default constructor, a constructor that receives a string and a constructor that receives a number indicating the line number where the exception occurred |
| **Question 9** | | | | |
|  |  |  |  |  |  |

User-defined exceptions should be derived from the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | ApplicationException class. |
|  | |  | 2) | ConsoleException class. |
| Description: Correct Response | |  | 3) | Exception class. |
|  | |  | 4) | SystemException class. |
| **Question 10** | | | | |
|  |  |  |  |  |  |

In C#, try blocks are used for:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | testing for infinite loops. |
| Description: Correct Response | |  | 2) | testing for exceptions. |
|  | |  | 3) | resolving exceptions. |
|  | |  | 4) | testing code. |
| **Question 11** | | | | |
|  |  |  |  |  |  |

The finally block is an ideal location for code that releases resources to prevent “resource leaks.”

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 12** | | | | |
|  |  |  |  |  |  |

Using inheritance with exceptions enables a catch block to catch related exceptions using a concise notation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 13** | | | | |
|  |  |  |  |  |  |

The StackTrace property keeps track of *all* the method calls that occur in a program, and that's how a program knows which method caused the error.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 14** | | | | |
|  |  |  |  |  |  |

Which of the following statements is *true*?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | The code in a finally block is executed only if an exception occurs. |
|  | |  | 2) | The code in a finally block is executed only if an exception does not occur. |
|  | |  | 3) | The code in a finally block is executed only if there are no catch blocks. |
| Description: Correct Response | |  | 4) | None of the above is true. |
| **Question 15** | | | | |
|  |  |  |  |  |  |

Each Exception should have *three* constructors: A default constructor, one that receives a string, and one that receives a string and an exception.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 16** | | | | |
|  |  |  |  |  |  |

There *must* be a catch clause for *every* expected exception type.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 17** |

When an exception occurs it is said to have been:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | caught |
| Description: Correct Response | |  | 2) | thrown |
|  | |  | 3) | declared |
|  | |  | 4) | handled |
| **Question 18** | | | | |
|  |  |  |  |  |  |

In the catch block below, what is e?  
**catch ( DivideByZeroException e )**   
**{**   
**Console.WriteLine( e );**   
**} // end catch**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | The type of the exception being caught |
| Description: Correct Response | |  | 2) | The name of catch block’s exception parameter |
|  | |  | 3) | A finally block |
|  | |  | 4) | An exception handler |
| **Question 19** | | | | |
|  |  |  |  |  |  |

Exceptions can occur:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | from C#’s CLR |
|  | |  | 2) | through explicitly mentioned code in a try block |
|  | |  | 3) | through calls to other methods made in a try block |
| Description: Correct Response | |  | 4) | All of the above |
| **Question 20** | | | | |
|  |  |  |  |  |  |

In C#, after an exception is handled, control resumes         . This is known as the          model of exception handling.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | after the last catch block, termination |
|  |  | 2) | after the last catch block, resumption |
|  |  | 3) | just after the throw point, termination |
|  |  | 4) | just after the throw point, resumption |

|  |
| --- |
| **Question 1** |

The constructor method for an exception class should be overloaded to allow the customizing of the display message.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 2** | | | | |
|  |  |  |  |  |  |

The finally block is executed *only* if *no* error was reached in the try block.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 3** |

There can be no code in between try/catch/finally blocks.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 4** | | | | |
|  |  |  |  |  |  |

A FormatException is used to handle:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | extra spaces input by the user |
|  | |  | 2) | errors with deleting a file from disk |
| Description: Correct Response | |  | 3) | wrong data type inputs |
|  | |  | 4) | all of the above |
| **Question 5** | | | | |
|  |  |  |  |  |  |

A catch block that does not specify an exception type or an identifier \_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | is an error |
|  | |  | 2) | cannot catch any exceptions |
| Description: Correct Response | |  | 3) | can catch any exceptions |
|  | |  | 4) | None of the above |
| **Question 6** | | | | |
|  |  |  |  |  |  |

In order to display the error message generated by an exception, you use:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | the Message method of class Exception |
| Description: Correct Response | |  | 2) | the Message property of class Exception |
|  | |  | 3) | the ErrorMessage method of class Exception |
|  | |  | 4) | the ErrorMessage property of class Exception |
| **Question 7** | | | | |
|  |  |  |  |  |  |

Which of the following is *not* included in an exception’s stack trace?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | A descriptive message for the exception. |
|  | |  | 2) | The method-call stack at the time the exception occurred. |
|  | |  | 3) | The name of the exception. |
| Description: Correct Response | |  | 4) | Instructions on handling the exception. |
| **Question 8** | | | | |
|  |  |  |  |  |  |

If an exception is thrown in a catch handler, any code in the handler that follows the thrown exception will:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | generate a syntax error |
|  | |  | 2) | generate a logic error |
| Description: Correct Response | |  | 3) | never be executed |
|  | |  | 4) | run after the finally block is done |
| **Question 9** | | | | |
|  |  |  |  |  |  |

C# does not guarantee that a finally block (if one is present) will be executed if a try block is exited via a return, break or continue statement.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Description: Correct Response |  | 2) | False |
| [Description: https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 10** |

After an exception has occurred and a stack trace has been printed, the program may exit or continue executing, depending on the circumstances.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 11** | | | | |
|  |  |  |  |  |  |

Which of the following statements about try blocks is true?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | The try block must be followed by at least one catch block. |
|  | |  | 2) | The try block must be followed by a finally block. |
|  | |  | 3) | The try block should contain statements that may process an exception. |
| Description: Correct Response | |  | 4) | The try block should contain statements that may throw an exception. |
| **Question 12** | | | | |
|  |  |  |  |  |  |

Which of the following is *not* a property of Exception?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | HelpLink |
|  | |  | 2) | Source |
|  | |  | 3) | TargetSite |
| Description: Correct Response | |  | 4) | PrintError |
| **Question 13** | | | | |
|  |  |  |  |  |  |

Exception handling statements typically consist of:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | try blocks and catch blocks. |
|  | |  | 2) | if statements and throw blocks. |
|  | |  | 3) | try blocks, throw blocks, and finally blocks. |
| Description: Correct Response | |  | 4) | try blocks, catch blocks, and finally blocks. |
| **Question 14** | | | | |
|  |  |  |  |  |  |

By convention, the name of each user-defined exception should end with Exception.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 15** | | | | |
|  |  |  |  |  |  |

The process that attempts to locate an appropriate catch handler for an uncaught exception is known as:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | laddering |
|  | |  | 2) | stack winding |
| Description: Correct Response | |  | 3) | stack unwinding |
|  | |  | 4) | stack traversing |
| **Question 16** | | | | |
|  |  |  |  |  |  |

The catch handler that catches an exception of type Exception should be

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | last |
|  | |  | 2) | anywhere |
|  | |  | 3) | first |
|  | |  | 4) | a catch handler that catches an exception of type Exception should not be used |
| **Question 17** | | | | |
|  |  |  |  |  |  |

An uncaught exception:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | is a possible exception that never actually occurs during the execution of the program. |
|  | |  | 2) | is an exception that occurs for which the matching catch clause is empty. |
| Description: Correct Response | |  | 3) | is an exception that occurs for which there are no matching catch clauses. |
|  | |  | 4) | is another term for a thrown exception. |
| **Question 18** | | | | |
|  |  |  |  |  |  |

A NullReferenceException is thrown when there's an attempt to use a reference that points to nothing.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 19** | | | | |
|  |  |  |  |  |  |

The base class for all exception classes is System.Exception.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 20** | | | | |
|  |  |  |  |  |  |

Stack unwinding is the process that attempts to locate an appropriate catch handler for an uncaught exception.

|  |  |  |  |
| --- | --- | --- | --- |
| Description: Correct Response |  | 1) | True |
|  |  | 2) | False |

|  |
| --- |
| **Question 1** |

GroupBoxes can display captions and do not include scrollbars, whereas Panels can include scrollbars and do not include a caption.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 2** | | | |

What control should you use to restrict a user’s choice to a specific range of numeric values,

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | NumericUpDown |
|  |  | 2) | TextBox |
|  |  | 3) | NumberBox |
|  |  | 4) | None of the above |
| **Question 3** | | | |

CheckBoxes and RadioButtons have a CheckedChanged event that's raised whenever the state of that control is altered.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 4** | | | |

Events occur, for example, when the user clicks the mouse or types on the keyboard and interacts with controls.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 5** | | | |

The AutoSize property is used to:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | change the size of the image to fit the PictureBox |
| Correct Response |  | 2) | change the size of the PictureBox to fit the image |
|  |  | 3) | find a medium between the PictureBox and the actual picture |
|  |  | 4) | make the picture as large as possible while still maintaining quality |
| **Question 6** | | | |

In order to add or remove an event from a delegate, you would use:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | the Add and Remove methods |
|  |  | 2) | the Add and Subtract methods |
| Correct Response |  | 3) | the += and the -= operators |
|  |  | 4) | events can only be added with the += and not removed from a delegate |
| **Question 7** | | | |

Many of the components used for Windows applications are defined in namespace:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | System |
| Correct Response |  | 2) | System.Windows.Forms |
|  |  | 3) | System.Windows.UI |
|  |  | 4) | System.Web.UI |

**Question 8 (1 point)**

Question 8 Saved

Mouse interaction with the GUI is limited to click, press, and move.

Question 8 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 9 (1 point)**

Question 9 Saved

In order to use modifier keys you should:

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | use the ModifierKey event. |
|  | 2) | use the KeyData property. |
|  | 3) | use the ModifierKeyHandler. |
|  | 4) | modifier keys have to be dealt with manually. |

|  |
| --- |
| **Question 10** |

The Clicks property of class MouseEventArgs is used to determine the number of times a Button was clicked.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 11** | | | |

GroupBoxes and Panels are used to:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | bundle a bunch of controls into one package |
|  |  | 2) | allow more than one RadioButton to be true at the same time if the radio buttons are on different GroupBoxes or Panels |
|  |  | 3) | organize the form in a more orderly fashion |
| Correct Response |  | 4) | All of the above |

**Question 12 (1 point)**

Question 12 Saved

The AutoScroll property will cause a Panel to scroll to the bottom if the controls displayed are too large.

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 13 (1 point)**

Question 13 Saved

A Label allows input to be typed into it.

Question 13 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 14 (1 point)**

Question 14 Saved

Docking and anchoring are easy ways to:

Question 14 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | allow a form to change sizes without altering the form too much. |
|  | 2) | prevent users from changing the layout of the window. |
|  | 3) | prevent a user from resizing the form. |
|  | 4) | All of the above |
| **Question 15** | | |

In C# GUIs, only event handlers need to be written by programmers. C# takes care of the GUI code.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 16** | | | |

The Directory class can be used to find specific images on the computer.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 17** | | | |

PictureBoxes can be used with .gif, .jpg, bitmaps, icons and metafiles.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 18 (1 point)**

Question 18 Saved

ListBoxes and ComboBoxes are the same other than the fact that ComboBoxes have a drop-down list.

Question 18 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 19 (1 point)**

Question 19 Saved

All of the controls and components can be found in the tool box.

Question 19 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 20** | | |

Panels have the ability to have scrollbars should their contents get too big.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 1 (1 point)**

Question 1 Saved

Property Anchor allows the programmer to prevent form alterations by the user.

Question 1 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 2 (1 point)**

Question 2 Saved

Event delegates can contain any method.

Question 2 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 3** | | |

Event delegates act as a go-between for objects raising events and the methods that are handling them.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 4 (1 point)**

Question 4 Saved

An *active* control is one that:

Question 4 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | can move about the screen. |
|  | 2) | is most commonly clicked by the user |
|  | 3) | is the control in focus |
|  | 4) | one that changes, whether it is color or another property, on an event. |
| **Question 5** | | |

A GUI allows the user to interact with the program visually.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 6** | | | |

An example of a component would be:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a button |
|  |  | 2) | a timer |
|  |  | 3) | a form |
| Correct Response |  | 4) | All of the above |
| **Question 7** | | | |

The Enabled property does *not* allow the control to perform actions when it's set to false.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 8** | | | |

You can use the TabIndex property to determine the order in which tabbing will occur.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 9 (1 point)**

Question 9 Saved

Multicast event delegates must reference methods:

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | with the same name, but a different signature |
|  | 2) | that should all be raised by the same event |
|  | 3) | defined earlier in the program |
|  | 4) | with different names and different signatures |

**Question 10 (1 point)**

Question 10 Saved

Textboxes can enable the Password property, meaning that the user needs a password to use them.

Question 10 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 11** | | |

KeyPress events cannot deal with modifier keys.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 12 (1 point)**

Question 12 Saved

When a ToolTip is being displayed, the appearance of it remains the same.

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 13** |

Events can be:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | generated within the code of the program |
|  |  | 2) | started with a click on a button, or other control |
|  |  | 3) | generate by keyboard input |
| Correct Response |  | 4) | All of the above |

**Question 14 (1 point)**

Question 14 Saved

What does the ReadOnly property indicate?

Question 14 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | the number of the control cannot change |
|  | 2) | the user cannot click the buttons to select a number into the control |
|  | 3) | the user cannot type a number into the control |
|  | 4) | all of the above |

**Question 15 (1 point)**

Question 15 Saved

The correct syntax for an event handler is: eventName\_controlName.

Question 15 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 16 (1 point)**

Question 16 Saved

Only one RadioButton can be checked per form on the screen.

Question 16 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 17 (1 point)**

Question 17 Saved

When adding a ToolTip component from the Toolbox, it appears on the arbitrary location on the Form.

Question 17 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 18 (1 point)**

Question 18 Saved

When obtaining the coordinates of the mouse, they are

Question 18 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | always taken from the main form of the program |
|  | 2) | relative to the control that caused the event |
|  | 3) | taken from the center of the form |
|  | 4) | start from wherever the mouse is at that second |

|  |
| --- |
| **Question 19** |

Visual Studio provides snap lines to help align controls.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 20 (1 point)**

Question 20 Saved

All buttons, including checkboxes and radio buttons, are derived from class Button.

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
|  |  |  |
| **Question 1** | | |

Timers run on an interval event which they create themselves.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 2** | | | |

Users can input and display dates and times through:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | the MonthCalendar control |
|  |  | 2) | the DateTimePicker control |
|  |  | 3) | the CalendarTime control |
| Correct Response |  | 4) | a and b |

**Question 3 (1 point)**

Question 3 Saved

If the user has not selected any items from the ListBox then SelectedIndex returns 0.

Question 3 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 4 (1 point)**

Question 4 Saved

To remove an item from a ListBox, use the Delete method of the Items property.

Question 4 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 5** | | |

Which of the following statements are *true* about menus created through C#?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Provide groups of related commands for Windows applications. |
|  |  | 2) | Organize commands without cluttering the GUI |
|  |  | 3) | Have the capacity to create shortcuts for the menu commands |
| Correct Response |  | 4) | All of the above |
| **Question 6** | | | |

Class CheckedListBox derives from class ListBox and contains similar properties.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 7** | | | |

The ItemCheck event occurs when an item is either checked or unchecked.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 8 (1 point)**

Question 8 Saved

A ListView is the viewing of a ListBox.

Question 8 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 9** | | |

The ShortcutKeys property is used to set which key combination can be used instead of clicking on a menu item.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 10 (1 point)**

Question 10 Saved

What does the MonthCalendar allow for?

Question 10 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | time selection |
|  | 2) | date selection |
|  | 3) | a and b |
|  | 4) | None of the above |

**Question 11 (1 point)**

Question 11 Saved

When adding a node to a tree use:

Question 11 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | *treeView*.Nodes[ *parentIndex* ].Nodes.Add( new TreeNode(*ChildLabel*)) |
|  | 2) | *treeView*.Node[*parentIndex*].Add(new TreeNode(*ChildLabel*)) |
|  | 3) | *treeView*.Node[*parentIndex*].Add(*ChildLabel*) |
|  | 4) | *treeView*.Node[*parentIndex*].Nodes.Add(*ChildLabel*) |
| **Question 12** | | |

The MdiChildren property returns a list of all the created children as an array of Forms.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 13** | | | |

The Exists method of class Directory is used to:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | check if a given directory has sub-directories |
| Correct Response |  | 2) | check if a given directory actually exists |
|  |  | 3) | make sure that the List has a beginning and an ending |
|  |  | 4) | check for an actual list by making sure the first and last elements are not the same, meaning the list only has one item in it. |
| **Question 14** | | | |

The DropDownList style of a ComboBox prevents the user from entering items.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 15** | | | |

The Format property specifies the user’s selection options using the DateTimePickerFormat enumeration.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 16** | | | |

In order to have a program close use:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | the reserved word exit |
|  |  | 2) | the reserved word unload |
| Correct Response |  | 3) | Application.Exit() |
|  |  | 4) | Application.Unload() |

**Question 17 (1 point)**

Question 17 Saved

In a ComboBox only the programmer can enter items to the list.

Question 17 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 18** | | |

Types of menus available are:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | the normal: File, Edit, Help. |
|  |  | 2) | the normal and some: also Format, Window, Special, View. |
| Correct Response |  | 3) | you can insert whatever menu titles you want to.. |
|  |  | 4) | C# makes all the menus for the programmer. |
| **Question 19** | | | |

In order to have a tree, you must first make a root node that acts as the base for all the other nodes in the tree.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 20** | | | |

The syntax for adding a new item to a ListBox is:

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | ListBox.Items.Add( "item" ) |
|  |  | 2) | ListBox.Add( "item" ) |
|  |  | 3) | ListBox.Items.Insert( "item" ) |
|  |  | 4) | ListBox.Insert( "item" ) |

**Question 1 (1 point)**

Question 1 Saved

The MaxDropDownItems property

Question 1 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | sets the maximum number of items the list can hold |
|  | 2) | creates a scrollbar on the list after it exceeds the set max |
|  | 3) | creates a max to how many items the user can add to the list |
|  | 4) | can be set from 1 to 1000 |
| **Question 2** | | |

What is the event that is generated when an MDI child is closed or activated?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | MdiChildStatusChanged |
| Correct Response |  | 2) | MdiChildActivate |
|  |  | 3) | MdiChildModified |
|  |  | 4) | MdiChildCA |
| **Question 3** | | | |

In order to create an MDI Form the programmer has to enable that form to be an MDI container.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 4** | | | |

All controls contain the method OnPaint which is used to change the display on a control.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 5** | | | |

An example of a ListView is the right side of windows explorer.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 6** | | | |

The UseMnemonic property indicates that ampersand (&) should be interpreted as a shortcut rather than an actual character.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 7 (1 point)**

Question 7 Saved

To add an item to a CheckedListBox use:

Question 7 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | the Add method |
|  | 2) | the AddRange method |
|  | 3) | the String Collection Editor |
|  | 4) | All of the above |
| **Question 8** | | |

By default, ListBox items cannot be changed by the user.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 9** | | | |

Menus are ways of grouping similar commands and prevent GUI clutter.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 10 (1 point)**

Question 10 Saved

For a selection, the user must type the desired date.

Question 10 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |
| **Question 11** | | |

A ComboBox is a TextBox with a drop-down list.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 12** | | | |

The MultiLine property determines whether tabs can fill more than one row or not.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 13** | | | |

LinkLabels are used to open up a web page or other desired location.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 14** | | | |

Visual inheritance is used to create visual consistence and uniformity.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 15** | | | |

The main purpose of tabbed windows are:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | to group controls |
|  |  | 2) | to conserve screen space |
|  |  | 3) | to organize the form |
| Correct Response |  | 4) | All of the above |

**Question 16 (1 point)**

Question 16 Saved

To set an underline shortcut in a Menu, you use the tilde key (~).

Question 16 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 17 (1 point)**

Question 17 Saved

Windows within windows are called the sub-windows of the original windows.

Question 17 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 18 (1 point)**

Question 18 Saved

Custom controls can be created but *cannot* be inserted into the toolbox.

Question 18 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 19** |

The SelectedIndex property returns the index of the selected item.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 20** | | | |

The SelectedIndexChanged occurs when the user selects a different item from the list.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

|  |
| --- |
| **Question 1** |

Console.In, Console.Out and Console.Error are used to take data in, to display data and to show error messages, respectively.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 2** | | | |

Directory’s method GetDirectories returns:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a string of all the names of sibling directories |
|  |  | 2) | an array of strings of all the names of sibling directories |
|  |  | 3) | a string of all the names of subdirectories |
| Correct Response |  | 4) | an array of strings of all the names of subdirectories |
| **Question 3** | | | |

When a file is opened, a stream object is created and associated with the file.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 4** | | | |

The smallest data item in a computer is the \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | bit |
|  |  | 2) | byte |
|  |  | 3) | kilobyte |
|  |  | 4) | None of the above. |
| **Question 5** | | | |

Method \_\_\_\_\_\_\_\_ of class BinaryFormatter reads a serialized object from a stream and reforms the object in memory.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Deserial |
| Correct Response |  | 2) | Deserialize |
|  |  | 3) | Deserializable |
|  |  | 4) | DSerial |
| **Question 6** | | | |

To distinguish fields or records there has to be one that is different from every other, this is called the record key.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 7** | | | |

A serialized object is an object that includes:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a sequence of bytes that contain the object’s data |
|  |  | 2) | information about the object’s type |
|  |  | 3) | information about the types of data stored in the object |
| Correct Response |  | 4) | All of the above |
| **Question 8** | | | |

BinaryFormatters can be used to serialize and deserialize objects coming in and going out via a stream.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 9** | | | |

In a class that is marked with the [Serializable] attribute or that implements interface ISerializable, not every instance variable of the class needs to be   
serializable.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 10** |

Class File can only create new files.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 11** |

Computer circuitry is able to:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | get the value of a bit |
|  |  | 2) | examine the value of a bit |
|  |  | 3) | reverse the value of a bit |
| Correct Response |  | 4) | All of the above |
| **Question 12** | | | |

By default, array objects are *not* serializable.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 13** |

If the array contains references to other objects, those objects may or may not be serializable.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 14** | | | |

In a \_\_\_\_\_\_\_\_\_\_\_\_ file, a record typically stored in order by a record-key field.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | chronological |
|  |  | 2) | non-sequential |
| Correct Response |  | 3) | sequential |
|  |  | 4) | record-key |
| **Question 15** | | | |

Use the \_\_\_\_\_\_\_ method of class OpenFileDialog to show a dialog that allows the user to select a file to be opened.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | OpenFile |
|  |  | 2) | ChooseFile |
| Correct Response |  | 3) | ShowDialog |
|  |  | 4) | OpenFileDialog |
| **Question 16** | | | |

All simple-type variables and strings are serializable.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 17** | | | |

When a FileStream object is opened, the file-position pointer is \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | set to Null |
| Correct Response |  | 2) | set to 0 |
|  |  | 3) | needs to be explicitly created |
|  |  | 4) | set to the end of the file |
| **Question 18** | | | |

An example of when a file should *not* be used is:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | to save the status of a video game for another session. |
| Correct Response |  | 2) | to save the value of a variable at runtime. |
|  |  | 3) | to log errors in the execution of a program. |
|  |  | 4) | these are all good examples of when files should be used. |
| **Question 19** | | | |

Which of the following attributes is needed to indicate to the CLR that objects of the class can be serialized?

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | [Serializable] |
|  |  | 2) | [DeSerializable] |
|  |  | 3) | [Serialize] |
|  |  | 4) | both a and b |
| **Question 20** | | | |

To create a new file and return a stream that can be used to process the file, use the:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | CreateFile method of class File |
|  |  | 2) | NewFile method of class File |
| Correct Response |  | 3) | Create method of class File |
|  |  | 4) | New method of class File |

|  |
| --- |
| **Question 1** |

BinaryFormatter allows only for *reading* objects.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 2** |

Characters in C# are Unicode characters, each represented by one byte.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.3.1000.193-7](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 3** |

Another way that a class could indicate to the CLR that objects of the class can be serialized is through implementing the \_\_\_\_\_\_\_\_ interface.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Serializable |
| Correct Response |  | 2) | ISerializable |
|  |  | 3) | Serial |
|  |  | 4) | Serialize |
| **Question 4** | | | |

The standard output stream object enables a program to output data to the  
screen.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 5** | | | |

A \_\_\_\_\_\_\_\_\_\_\_\_\_ contains the byte number of the next byte in a file to be read or written to a file.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | data locator |
|  |  | 2) | file counter |
| Correct Response |  | 3) | file-position pointer |
|  |  | 4) | byte-number counter. |
| **Question 6** | | | |

Binary code is actually:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a complex programming language. |
| Correct Response |  | 2) | a series of 0’s and 1’s. |
|  |  | 3) | machine language instructions. |
|  |  | 4) | a series of characters representing the numbers 0 to 9. |
| **Question 7** | | | |

The FileAccess.Read enumeration member is used if the file should not be modified.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 8** | | | |

Resource releasing should be done as soon as the resource is no longer needed.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 9** | | | |

The enumeration FileAccess is used to:

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | control user access to a file |
|  |  | 2) | control program access to a file |
|  |  | 3) | control the amount of updating that can be done on a file at once |
|  |  | 4) | FileAccess is a method, not an enumeration |
| **Question 10** | | | |

A recursive search on a directory is one where:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a directory is searched and then all of its sub directories are searched. |
|  |  | 2) | each sub directory is searched and then the main directory is searched. |
|  |  | 3) | a search is done randomly on all directories. |
|  |  | 4) | a and c |
| Correct Response |  | 5) | a and b |
| **Question 11** | | | |

One byte is composed of:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | 2 bits |
|  |  | 2) | 4 bits |
| Correct Response |  | 3) | 8 bits |
|  |  | 4) | 10 bits |
| **Question 12** | | | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are used for long-term retention of large amounts of data.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Memory cards |
|  |  | 2) | Buffers |
| Correct Response |  | 3) | Files |
|  |  | 4) | Data structures |
| **Question 13** | | | |

The Console.Error property returns:

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | a standard error stream object |
|  |  | 2) | a new error |
|  |  | 3) | an object of type error |
|  |  | 4) | None of the above |
| **Question 14** | | | |

The classes dealing with files and directories are located in the System.IO namespace.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 15** | | | |

Method GetFiles of class Directory can be used to display all the files in a given directory.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 16** | | | |

Data stored in a file is considered:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | temporary data |
| Correct Response |  | 2) | persistent data |
|  |  | 3) | recurring data |
|  |  | 4) | there is no need to store data in files |
| **Question 17** | | | |

Deserialize returns a reference of type:

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | object which must be cast to the appropriate type to manipulate the object |
|  |  | 2) | the type that the object was originally |
|  |  | 3) | Deserialized which must be cast to the appropriate type to manipulate the object |
|  |  | 4) | None of the above |
| **Question 18** | | | |

An OpenFileDialog allows a user to select a file to open.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 19** | | | |

Class Directory is used to change directories.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |
| **Question 20** | | | |

BinaryFormatter’s Serialize and Deserialize methods are both parameterless.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |

**Question 1 (1 point)**

Question 1 Saved

When various databases are combined, this is known as data binding.

Question 1 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 2** | | | |

Microsoft SQL Server uses a variant of SQL called Transact-SQL.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 3** | | | | |

A relational database model allows relationships between data to be considered without concern for the \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | meaning of the data |
| Correct Response | |  | 2) | structure of the data |
|  | |  | 3) | application of the data |
|  | |  | 4) | All of the above |
| **Question 4** | | | | |

A foreign key (LINQ to SQL) has a property to access its record object in another table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 5** | | | | |

Today’s most popular database systems are \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | management databases |
|  |  | 2) | structural databases |
|  |  | 3) | formatted databases |
| Correct Response |  | 4) | relational databases |

**Question 6 (1 point)**

Question 6 Saved

Each foreign key can be created independently.

Question 6 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 7 (1 point)**

Question 7 Saved

A primary key field can be duplicated in other records of the same relational database table, making it easier to manipulate.

Question 7 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 8 (1 point)**

Question 8 Saved

The master view of a master/detail view application allows you to \_\_\_\_\_\_\_\_.

Question 8 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | manage the database |
|  | 2) | select the data to display |
|  | 3) | navigate through data entries |
|  | 4) | insert a table into an application |

**Question 9 (1 point)**

Question 9 Saved

A relational database model is a way of organizing data and considering relationships based on the physical structure of the data.

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 10** |

A DataContext object makes the necessary connections between the database and the program.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 11 (1 point)**

Question 11 Saved

Using a cache *increases* “round trips” of information to the database.

Question 11 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 12** | | | |

A ComboBox can have its DataSource set directly to a LINQ query result.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 13** | | | | |

Tables from databases are commonly shown in a GUI through a \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | DataBoxView |
| Correct Response | |  | 2) | DataGridView |
|  | |  | 3) | ListBoxView |
|  | |  | 4) | SpreadSheet |
| **Question 14** | | | | |

A query is a request to the database for the data that satisfies the specified criteria.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 15** | | | | |

Relational databases can be thought of as \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | rows |
|  | |  | 2) | columns |
| Correct Response | |  | 3) | tables of rows and columns |
|  | |  | 4) | three-dimensional arrays |
| **Question 16** | | | | |

There is a \_\_\_\_\_\_\_\_\_\_\_\_ relationship between a primary key and its corresponding foreign key.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | one-to-one |
|  | |  | 2) | foreign |
| Correct Response | |  | 3) | one-to-many |
|  | |  | 4) | structural |
| **Question 17** | | | | |

The BindingNavigator allows the user \_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | to control which row of the table is currently in view |
|  | |  | 2) | to add new and delete new rows |
|  | |  | 3) | to save changes to the data in view |
| Correct Response | |  | 4) | All of the above |
| **Question 18** | | | | |

Database management systems enable you to access and store data without worrying about the internal representation of databases.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 19 (1 point)**

Question 19 Saved

Setting the \_\_\_\_\_\_\_\_ property of a DataContext object records all queries to the specified stream.

Question 19 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Log |
|  | 2) | QueryStack |
|  | 3) | Cache |
|  | 4) | DataTrace |

**Question 20 (1 point)**

Question 20 Saved

You must create the LINQ to SQL classes that map database tables into objects in your programs.

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 1** |

A primary key must be unique for each record in the relational database table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 2** | | | | |

How does a cache help provide fast access to data?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | It performs SQL queries. |
|  | |  | 2) | It allows tables to be joined. |
| Correct Response | |  | 3) | It temporarily stores data objects in memory. |
|  | |  | 4) | It manages a database. |
| **Question 3** | | | | |

LINQ’s Join query operator functions like SQL’s INNER JOIN operator.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 4** | | | | |

Relational databases can be thought of as \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | rows |
|  | |  | 2) | columns |
| Correct Response | |  | 3) | tables of rows and columns |
|  | |  | 4) | three-dimensional arrays |
| **Question 5** | | | | |

The BindingNavigator allows the user \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | to control which row of the table is currently in view |
|  |  | 2) | to add new and delete new rows |
|  |  | 3) | to save changes to the data in view |
| Correct Response |  | 4) | All of the above |

**Question 6 (1 point)**

Question 6 Saved

The master view of a master/detail view application allows you to \_\_\_\_\_\_\_\_.

Question 6 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | manage the database |
|  | 2) | select the data to display |
|  | 3) | navigate through data entries |
|  | 4) | insert a table into an application |

|  |
| --- |
| **Question 7** |

There is a \_\_\_\_\_\_\_\_\_\_\_\_ relationship between a primary key and its corresponding foreign key.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | one-to-one |
|  | |  | 2) | foreign |
| Correct Response | |  | 3) | one-to-many |
|  | |  | 4) | structural |
| **Question 8** | | | | |

Using a cache *increases* “round trips” of information to the database.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| --- |
| **Question 9** |

A foreign key (LINQ to SQL) has a property to access its record object in another table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |

A relational database model allows relationships between data to be considered without concern for the \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | meaning of the data |
| Correct Response |  | 2) | structure of the data |
|  |  | 3) | application of the data |
|  |  | 4) | All of the above |

**Question 11 (1 point)**

Question 11 Saved

Setting the \_\_\_\_\_\_\_\_ property of a DataContext object records all queries to the specified stream.

Question 11 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | Log |
|  | | 2) | QueryStack |
|  | | 3) | Cache |
|  | | 4) | DataTrace |
| **Question 12** | | | |

You must create the LINQ to SQL classes that map database tables into objects in your programs.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 13** |

A relational database model is a way of organizing data and considering relationships based on the physical structure of the data.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 14** |

When various databases are combined, this is known as data binding.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 15** |

Database management systems enable you to access and store data without worrying about the internal representation of databases.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 16** | | | | |

Today’s most popular database systems are \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | management databases |
|  | |  | 2) | structural databases |
|  | |  | 3) | formatted databases |
| Correct Response | |  | 4) | relational databases |
| **Question 17** | | | | |

A DataContext object makes the necessary connections between the database and the program.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 18** | | | | |

Tables from databases are commonly shown in a GUI through a \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | DataBoxView |
| Correct Response | |  | 2) | DataGridView |
|  | |  | 3) | ListBoxView |
|  | |  | 4) | SpreadSheet |
| **Question 19** | | | | |

Microsoft SQL Server uses a variant of SQL called Transact-SQL.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 20** | | | | |

A ComboBox can have its DataSource set directly to a LINQ query result.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

|  |
| --- |
| **Question 1** |

When XHTML for a page is created, a validator is converted into \_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | JavaScript |
|  | |  | 2) | CScript |
|  | |  | 3) | UniScript |
|  | |  | 4) | None of the above. |
| **Question 2** | | | | |

Namespace \_\_\_\_\_\_\_\_\_\_\_ contains classes for creating web applications and controls.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | System.Web.Creation |
|  |  | 2) | System.ASP |
|  |  | 3) | System.Web.GUI |
| Correct Response |  | 4) | System.Web.UI |

**Question 3 (1 point)**

Question 3 Saved

Cookies exist on a user’s computer until the user decides to delete them.

Question 3 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

|  |
| --- |
| **Question 4** |

The host is the computer that requests a Web page for display.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| --- |
| **Question 5** |

The code-behind file is a(n) \_\_\_\_\_\_\_ class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | partial |
|  | |  | 2) | full |
|  | |  | 3) | abstract |
|  | |  | 4) | virtual |
| **Question 6** | | | | |

A \_\_\_\_\_\_\_\_ ASP.NET data control displays data on a Web Form in a tabular format.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | TabView |
| Correct Response | |  | 2) | GridView |
|  | |  | 3) | TabFormat |
|  | |  | 4) | GridFormat |
| **Question 7** | | | | |

The information tier of a multi-tier application holds the application's data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 8** | | | | |

GridView method Refresh refreshes the information displayed in the GridView.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| --- |
| **Question 9** |

Each \_\_\_\_\_\_\_\_\_ in a GridView is represented as a BoundField.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | row |
| Correct Response | |  | 2) | column |
|  | |  | 3) | table |
|  | |  | 4) | database |
| **Question 10** | | | | |

Web Forms use the same controls as Windows Forms.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 11** |

The top tier in a multi-tier application is the application’s user interface which gathers input and displays output.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 12** | | | | |

The first time a client connects to a server for a web application that uses sessions, the server creates a unique \_\_\_\_\_\_\_\_ that can later be compared to others in the server’s memory in order to identify the client.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | session ID |
|  | |  | 2) | HttpSessionState object |
|  | |  | 3) | cookie |
|  | |  | 4) | None of the above. |
| **Question 13** | | | | |

Cookies created by one server can be accessed by any server that wishes to access them.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 14** |

HTTP is a \_\_\_\_\_\_\_\_\_ protocol: it does not support persistent connections.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | connectionful |
|  | |  | 2) | connectionless |
| Correct Response | |  | 3) | stateless |
|  | |  | 4) | stateful |
| **Question 15** | | | | |

The file that contains the coding for a Web Form is a Web-code file.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

|  |
| --- |
| **Question 16** |

A LinqDataSource allows an application to interact with a database via LINQ.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 17 (1 point)**

Question 17 Saved

.NET provides session-tracking capabilities in class \_\_\_\_\_\_\_\_\_\_.

Question 17 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | Session |
|  | | 2) | SessionTracking |
|  | | 3) | HttpSessionState |
|  | | 4) | SessionState |
| **Question 18** | | | |

Visual Studio creates a class for every ASPX file it creates in a .NET language.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 19** | | | | |

Relative positioning specifies that controls will be located exactly where they're dragged and dropped onto the form by the programmer.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| --- |
| **Question 20** |

The pathname to a file on a web server specifies the location of an actual directory on the web server’s file system.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |

|  |
| --- |
| **Question 1** |

A database used by an ASP.NET website should be located in the project’s App\_Data folder.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 2** | | | | |

For ASP .NET applications, IIS is usually the web server.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 3** | | | | |

An IP address is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | an internet protocol address |
|  | |  | 2) | a set of numbers distinguishing computers |
|  | |  | 3) | a value that identifies a server |
| Correct Response | |  | 4) | All of the above |
| **Question 4** | | | | |

Microsoft’s \_\_\_\_\_\_\_\_\_ technology is used for web-based application development.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | ASP .NET |
|  | |  | 2) | APM .NET |
|  | |  | 3) | PHP .NET |
|  | |  | 4) | All of the above |
| **Question 5** | | | | |

A \_\_\_\_\_\_\_ is an address indicating the location of a resource on the web.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | DNS |
| Correct Response | |  | 2) | URL |
|  | |  | 3) | ASPX |
|  | |  | 4) | None of the above. |
| **Question 6** | | | | |

Web forms are customized by programmers by adding Web \_\_\_\_\_\_\_\_\_ such as labels and buttons.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | features |
| Correct Response | |  | 2) | controls |
|  | |  | 3) | servers |
|  | |  | 4) | None of the above |
| **Question 7** | | | | |

A \_\_\_\_\_\_\_\_ is a piece of data stored in a small text file to maintain information about the client during and between browser sessions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | tracking file |
| Correct Response | |  | 2) | cookie |
|  | |  | 3) | Web log |
|  | |  | 4) | virtual record |
| **Question 8** | | | | |

A web server translates a hostname into an IP address.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 9** |

Controls and other elements are placed on a Web From sequentially.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |

The middle tier of a multi-tier application processes client requests and maintains the reliability of the stored data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 11** | | | | |

\_\_\_\_\_\_\_\_\_\_ is an Internet standard that specifies the way in which certain types of data must be formatted so that programs can interpret the data correctly.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | IIS |
|  | |  | 2) | DNS |
| Correct Response | |  | 3) | MIME |
|  | |  | 4) | None of the above. |
| **Question 12** | | | | |

A validator control ensures that the entered information is in the correct format.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 13** | | | | |

A simple Web Form consists of two related files, an ASPX file and a(n) \_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | HTML document |
|  | |  | 2) | database file |
| Correct Response | |  | 3) | C# code-behind file |
|  | |  | 4) | None of the above. |
| **Question 14** | | | | |

An instance of the web page is re-compiled each time the ASPX file is requested by a user.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 15** |

A \_\_\_\_\_\_\_\_ checks whether data entered into another web control is correct or in the proper format.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | validation control |
|  | |  | 2) | format control |
|  | |  | 3) | user control |
|  | |  | 4) | certification control |
| **Question 16** | | | | |

Web Form files have the extension:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | .wbfm |
|  | |  | 2) | .wasp |
|  | |  | 3) | .aspc |
| Correct Response | |  | 4) | .aspx |
| **Question 17** | | | | |

The information tier typically stores data in a(n) \_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | DataGrid |
|  | |  | 2) | XML document |
| Correct Response | |  | 3) | relational database management system |
|  | |  | 4) | None of the above |
| **Question 18** | | | | |

Relative positioning specifies that controls will be located exactly where they're dragged and dropped onto the form by the programmer.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| **Question 19** |

The code-behind file is a(n) \_\_\_\_\_\_\_ class.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | partial |
|  | |  | 2) | full |
|  | |  | 3) | abstract |
|  | |  | 4) | virtual |
| **Question 20** | | | | |

Visual Studio creates a class for every ASPX file it creates in a .NET language.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

|  |
| --- |
| **Question 1** |

Choose the correct XML syntax:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | <x><y>hello<y/><x/> |
|  | |  | 2) | <x><y>hello</x></y> |
| Correct Response | |  | 3) | <x><y>hello</y></x> |
|  | |  | 4) | <x><y>hello<x/><y/> |
| **Question 2** | | | | |

The CanExecute event for a command allows programmers to implement logic that determines whether a command should be enabled or disabled.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 3** | | | | |

A validating parser determines only if the document is well formed.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |
| [[https://mnstate.ims.mnscu.edu/d2l/img/0/Shared.Main.actShow.gif?v=9.4.1000.80-8](javascript://)View Feedback](javascript://) | | | | |

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| --- |
| **Question 4** |

\_\_\_\_\_\_\_\_\_, a subset of WPF, is used to create Rich Internet Applications.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | Moonlight |
|  |  | 2) | XAML |
|  |  | 3) | Mono |
| Correct Response |  | 4) | Silverlight |

**Question 5 (1 point)**

Question 5 Saved

WPF provides built-in functionality--such as minimizing, maximizing and closing the window--for custom windows.

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 6** | | | |

Every XML document must contain exactly one root element.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 7 (1 point)**

Question 7 Saved

All XML files must end in the .xml extension

Question 7 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 8 (1 point)**

Question 8 Saved

The XML declaration is mandatory.

Question 8 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 9** | | | |

To eliminate the need to precede each element with a namespace prefix, document authors can specify a defaultnamespace.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 10** | | | | |

To ensure a unique XML namespace you should use:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | their Social Security Number |
|  |  | 2) | their address |
| Correct Response |  | 3) | an appropriate Web URL |
|  |  | 4) | their last name |

**Question 11 (1 point)**

Question 11 Saved

If the URI given to a namespace is a URL, the URL needs to refer to an actual Web page and must conform to proper URL syntax.

Question 11 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 12 (1 point)**

Question 12 Saved

XML \_\_\_\_\_\_\_\_\_\_\_\_\_ provide a means of uniquely identifying XML elements.

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | attributes |
|  | 2) | tags |
|  | 3) | namespaces |
|  | 4) | None of the above |

|  |
| --- |
| **Question 13** |

It's a good practice to use ranges for the size and relative location for the position of WPF controls.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 14 (1 point)**

Question 14 Saved

Colors are represented by three color values and the alpha value, specifying              .

Question 14 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | brightness |
|  | | 2) | opacity |
|  | | 3) | a blending constant |
|  | | 4) | None of the above. |
| **Question 15** | | | |

XML elements are nested to form hierarchies.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 16** | | | | |

XML elements \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | cannot begin with “xml” |
|  |  | 2) | cannot begin with any combination of uppercase and lowercase of “xml” |
|  |  | 3) | can begin with “xml” |
| Correct Response |  | 4) | a and b |

**Question 17 (1 point)**

Question 17 Saved

Elements can have any number of attributes in their start tags.

Question 17 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 18** | | | |

Individual units of markup are called tags.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | True |
| Correct Response |  | 2) | False |

**Question 19 (1 point)**

Question 19 Saved

A bubbling event travels down the container hierarchy, and a tunneling event travels up the container hierarchy.

Question 19 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | True |
|  | 2) | False |

**Question 20 (1 point)**

Question 20 Saved

XAML is used to define the application’s \_\_\_\_ .

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | program logic |
|  | 2) | graphical user interface |
|  | 3) | code behind classes |
|  | 4) | All of the above. |

**Question 1 (1 point)**

Question 1 Saved

WPF events which behave like Windows Forms events are called \_\_\_\_\_\_.

Question 1 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | expandable events |
|  | 2) | tunneling events |
|  | 3) | bubbling events |
|  | 4) | direct events |

**Question 2 (1 point)**

Question 2 Saved

A XAML document has exactly one \_\_\_\_\_\_ .

Question 2 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | root element |
|  | | 2) | start tag |
|  | | 3) | end tag |
|  | | 4) | child element |
| **Question 3** | | | |

XML is case sensitive.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 4 (1 point)**

Question 4 Saved

A XAML document’s root element is a \_\_\_\_\_\_ .

Question 4 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Window |
|  | 2) | Form |
|  | 3) | Grid |
|  | 4) | UserControl |

**Question 5 (1 point)**

Question 5 Saved

The ItemsSource property of a ListView must refer to the name of a DataTemplate element.

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 6** | | | |

XML elements can be nested, creating parent elements and child elements.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 7** | | | | |

The StartupUri attribute defines which XAML document loads first.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 8 (1 point)**

Question 8 Saved

XAML is used to describe the \_\_\_\_\_\_\_\_\_\_\_ of a WPF application.

Question 8 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | classes |
|  | 2) | program logic |
|  | 3) | code-behind file |
|  | 4) | GUI |

**Question 9 (1 point)**

Question 9 Saved

The \_\_\_\_\_\_\_ property of an event stores a reference to the control that triggered the event.

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Target |
|  | 2) | Source |
|  | 3) | SourceControl |
|  | 4) | EventTarget |

**Question 10 (1 point)**

Question 10 Saved

XAML is similar to .NET, a language that allows Internet application to share data.

Question 10 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 11** | | | |

A shape can be given an absolute position in a Canvas using the Canvas’s methods \_\_\_\_\_ and \_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | SetX, SetY |
| Correct Response |  | 2) | SetLeft, SetTop |
|  |  | 3) | PositionX, PositionY |
|  |  | 4) | PadLeft, PadTop |

**Question 12 (1 point)**

Question 12 Saved

A control’s Background property is a customizable \_\_\_\_\_\_\_\_ object.

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Color |
|  | 2) | BackColor |
|  | 3) | GUIcolor |
|  | 4) | None of the above |

**Question 13 (1 point)**

Question 13 Saved

When using a namespace the prefix must *always* be included.

Question 13 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 14** | | | |

Dependency properties provide built-in change notification.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | True |
|  | |  | 2) | False |
| **Question 15** | | | | |

Which of the following about the XML prolog is *true*?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | The XML prolog is the lines that precede the root element. |
|  |  | 2) | The XML declaration must appear before comments and any other markup. |
|  |  | 3) | The XML prolog is limited to a certain number of lines. |
| Correct Response |  | 4) | a and b |

**Question 16 (1 point)**

Question 16 Saved

A layout container’s \_\_\_\_\_\_ property stores a list of its child elements.

Question 16 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Children |
|  | 2) | ElementList |
|  | 3) | FlowItems |
|  | 4) | List |

**Question 17 (1 point)**

Question 17 Saved

A WPF Grid control allows child elements to be positioned using explicit coordinates.

Question 17 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | True |
|  | | 2) | False |
| **Question 18** | | | |

The application’s primary code-behind class has filename \_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | Application.xaml |
| Correct Response | |  | 2) | Application.xaml.cs |
|  | |  | 3) | Window1.xaml |
|  | |  | 4) | Window1.xaml.cs |
| **Question 19** | | | | |

A Grid is a type of layout container.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | True |
|  |  | 2) | False |

**Question 20 (1 point)**

Question 20 Saved

Which of the following *cannot* be part of an element’s name?

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | quotation marks |
|  | 2) | hyphens |
|  | 3) | underscores |
|  | 4) | periods |

|  |
| --- |
| **Question 1** |

A WCF web service in Visual Web Developer consists of \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a code-behind file |
|  |  | 2) | a Web.config file |
|  |  | 3) | an SVC file |
| Correct Response |  | 4) | All of the above |

**Question 2 (1 point)**

Question 2 Saved

The \_\_\_\_\_\_\_\_ attribute maps a method to a unique URL that can be accessed via an HTTP GET operation programmatically or in a web browser.

Question 2 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | OperationContract |
|  | 2) | WebGet |
|  | 3) | OperationBinding |
|  | 4) | UriTemplate |

**Question 3 (1 point)**

Question 3 Saved

To have the same object of a web service class handle all calls to the service, the ServiceBehavior attribute’s InstanceContextMode must be set to \_\_\_\_\_\_\_\_\_\_\_.

Question 3 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | PerSession |
|  | 2) | Single |
|  | 3) | PerCall |
|  | 4) | PerInstance |

|  |
| --- |
| **Question 4** |

JSON is a text-based data-interchange format used to represent objects in JavaScript as collections of \_\_\_\_\_\_\_\_\_ represented as strings.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | data/format pairs |
|  |  | 2) | primary key/data rows |
|  |  | 3) | definition/key pairs |
| Correct Response |  | 4) | name/value pairs |

**Question 5 (1 point)**

Question 5 Saved

The \_\_\_\_\_\_\_\_ attribute exposes a class to client access.

Question 5 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | DataEndpoint |
|  | 2) | DataBinding |
|  | 3) | DataMember |
|  | 4) | DataContract |

**Question 6 (1 point)**

Question 6 Saved

In the Web.config file, the service binding in the endpoint element must be set to \_\_\_\_\_\_\_\_ to support REST-based HTTP requests.

Question 6 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | webHttpBinding |
|  | 2) | wsHttpBinding |
|  | 3) | basicHttpBinding |
|  | 4) | netHttpBinding |

|  |
| --- |
| **Question 7** |

An XML data object is converted to a custom type via the process of \_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | deserialization |
|  |  | 2) | SOAP decoding |
|  |  | 3) | typecasting |
|  |  | 4) | None of the above. |

**Question 8 (1 point)**

Question 8 Saved

A web service’s methods can be called by methods on other machines using \_\_\_\_\_\_\_\_\_\_\_.

Question 8 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Representational State Transfer (REST) architecture |
|  | 2) | Simple Object Access Protocol |
|  | 3) | Both a and b |
|  | 4) | None of the above. |

**Question 9 (1 point)**

Question 9 Saved

Which of the following is *false*?

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | WCF is a set of technologies for building distributed systems in which system components communicate with one another over networks. |
|  | 2) | Since WCF is a common framework for all communication between systems, it allows you to learn only one programming model to use WCF. |
|  | 3) | Web services promote software reusability in distributed systems that typically execute across the Internet. |
|  | 4) | Web services allow its methods to be called by methods on other machines via different data formats and protocols. |

**Question 10 (1 point)**

Question 10 Saved

An application that consumes a SOAP-based web service consists of a \_\_\_\_\_\_\_\_ class and a \_\_\_\_\_\_\_\_ application.

Question 10 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 1) | client, virtual |
|  | | 2) | proxy, client |
|  | | 3) | virtual, proxy |
|  | | 4) | user, proxy |
| **Question 11** | | | |

The machine on which the web service resides is commonly referred to as the \_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | web service host |
|  | |  | 2) | service machine |
|  | |  | 3) | web machine |
|  | |  | 4) | None of the above. |
| **Question 12** | | | | |

SOAP is based on \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | HTML |
| Correct Response |  | 2) | XML |
|  |  | 3) | HTTP |
|  |  | 4) | All of the above |

**Question 13 (1 point)**

Question 13 Saved

JSON format is \_\_\_\_\_\_\_\_\_ compared to XML format.

Question 13 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | of higher quality |
|  | 2) | more verbose |
|  | 3) | less verbose |
|  | 4) | None of the above |

**Question 14 (1 point)**

Question 14 Saved

REST-based web services differ from SOAP-based web services in that \_\_\_\_\_\_\_\_.

Question 14 options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | 1) | REST operations must be accessed through a web service proxy object | |
|  | | 2) | REST services are less verbose than SOAP-based services | |
|  | | 3) | the request and response of REST services are not wrapped in envelopes and are not necessarily in XML format | |
|  | | 4) | None of the above. | |
| **Question 15** | | |

For a WCF web service to return data in JSON format, WebGet’s ResponseFormat property must be set to \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | WebMessageFormat.Json |
|  | |  | 2) | MessageFormat.Json |
|  | |  | 3) | an SVC file |
|  | |  | 4) | All of the above |
| **Question 16** | | | | |

Each operation in a RESTful web service is identified by a unique \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | URL |
|  |  | 2) | proxy object |
|  |  | 3) | interface |
|  |  | 4) | None of the above |

**Question 17 (1 point)**

Question 17 Saved

All of the following are key components of a WCF service *except*:

Question 17 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | contract |
|  | 2) | operation |
|  | 3) | address |
|  | 4) | binding |

**Question 18 (1 point)**

Question 18 Saved

Each SOAP call is packaged in a XML message called a SOAP \_\_\_\_\_\_\_\_\_

Question 18 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | envelope |
|  | 2) | packet |
|  | 3) | transfer |
|  | 4) | None of the above |

**Question 19 (1 point)**

Question 19 Saved

Which is a *not* requirement of a custom data type to be used in web services?

Question 19 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Any variables to be accessed during runtime must be declared WebVar. |
|  | 2) | The class with the web methods must provide a Public default constructor. |
|  | 3) | Properties and instance variables that should be serialized must be declared Public. |
|  | 4) | Properties that should be serialized must provide both *get* and *set* accessors. |

**Question 20 (1 point)**

Question 20 Saved

Once the user’s information is stored in a session variable, \_\_\_\_\_\_.

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | web methods can return personalized and localized results |
|  | 2) | the application will perform better because less information needs to pass between the client and the server. |
|  | 3) | Both a and b |
|  | 4) | None of the above. |

**Question 1 (1 point)**

Question 1 Saved

JSON format is \_\_\_\_\_\_\_\_\_ compared to XML format.

Question 1 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | of higher quality |
|  | 2) | more verbose |
|  | 3) | less verbose |
|  | 4) | None of the above |

**Question 2 (1 point)**

Question 2 Saved

Each SOAP call is packaged in a XML message called a SOAP \_\_\_\_\_\_\_\_\_

Question 2 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | envelope |
|  | 2) | packet |
|  | 3) | transfer |
|  | 4) | None of the above |

**Question 3 (1 point)**

Question 3 Saved

Once the user’s information is stored in a session variable, \_\_\_\_\_\_.

Question 3 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | web methods can return personalized and localized results |
|  | 2) | the application will perform better because less information needs to pass between the client and the server. |
|  | 3) | Both a and b |
|  | 4) | None of the above. |

|  |
| --- |
| **Question 4** |

SOAP is based on \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | HTML |
| Correct Response | |  | 2) | XML |
|  | |  | 3) | HTTP |
|  | |  | 4) | All of the above |
| **Question 5** | | | | |

An XML data object is converted to a custom type via the process of \_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | deserialization |
|  | |  | 2) | SOAP decoding |
|  | |  | 3) | typecasting |
|  | |  | 4) | None of the above. |
| **Question 6** | | | | |

JSON is a text-based data-interchange format used to represent objects in JavaScript as collections of \_\_\_\_\_\_\_\_\_ represented as strings.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | data/format pairs |
|  | |  | 2) | primary key/data rows |
|  | |  | 3) | definition/key pairs |
| Correct Response | |  | 4) | name/value pairs |
| **Question 7** | | | | |

For a WCF web service to return data in JSON format, WebGet’s ResponseFormat property must be set to \_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Correct Response | |  | 1) | WebMessageFormat.Json |
|  | |  | 2) | MessageFormat.Json |
|  | |  | 3) | an SVC file |
|  | |  | 4) | All of the above |
| **Question 8** | | | | |

In the Web.config file, the service binding in the endpoint element must be set to \_\_\_\_\_\_\_\_ to support REST-based HTTP requests.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | webHttpBinding |
|  |  | 2) | wsHttpBinding |
|  |  | 3) | basicHttpBinding |
|  |  | 4) | netHttpBinding |

**Question 9 (1 point)**

Question 9 Saved

The \_\_\_\_\_\_\_\_ attribute exposes a class to client access.

Question 9 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | DataEndpoint |
|  | 2) | DataBinding |
|  | 3) | DataMember |
|  | 4) | DataContract |

|  |
| --- |
| **Question 10** |

The machine on which the web service resides is commonly referred to as the \_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | web service host |
|  |  | 2) | service machine |
|  |  | 3) | web machine |
|  |  | 4) | None of the above. |

**Question 11 (1 point)**

Question 11 Saved

A web service’s methods can be called by methods on other machines using \_\_\_\_\_\_\_\_\_\_\_.

Question 11 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Representational State Transfer (REST) architecture |
|  | 2) | Simple Object Access Protocol |
|  | 3) | Both a and b |
|  | 4) | None of the above. |

**Question 12 (1 point)**

Question 12 Saved

All of the following are key components of a WCF service *except*:

Question 12 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | contract |
|  | 2) | operation |
|  | 3) | address |
|  | 4) | binding |

|  |
| --- |
| **Question 13** |

An application that consumes a SOAP-based web service consists of a \_\_\_\_\_\_\_\_ class and a \_\_\_\_\_\_\_\_ application.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  | 1) | client, virtual |
| Correct Response | |  | 2) | proxy, client |
|  | |  | 3) | virtual, proxy |
|  | |  | 4) | user, proxy |
| **Question 14** | | | | |

Each operation in a RESTful web service is identified by a unique \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| Correct Response |  | 1) | URL |
|  |  | 2) | proxy object |
|  |  | 3) | interface |
|  |  | 4) | None of the above |

**Question 15 (1 point)**

Question 15 Saved

Which is a *not* requirement of a custom data type to be used in web services?

Question 15 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | Any variables to be accessed during runtime must be declared WebVar. |
|  | 2) | The class with the web methods must provide a Public default constructor. |
|  | 3) | Properties and instance variables that should be serialized must be declared Public. |
|  | 4) | Properties that should be serialized must provide both *get* and *set* accessors. |

**Question 16 (1 point)**

Question 16 Saved

To have the same object of a web service class handle all calls to the service, the ServiceBehavior attribute’s InstanceContextMode must be set to \_\_\_\_\_\_\_\_\_\_\_.

Question 16 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | PerSession |
|  | 2) | Single |
|  | 3) | PerCall |
|  | 4) | PerInstance |

**Question 17 (1 point)**

Question 17 Saved

REST-based web services differ from SOAP-based web services in that \_\_\_\_\_\_\_\_.

Question 17 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | REST operations must be accessed through a web service proxy object |
|  | 2) | REST services are less verbose than SOAP-based services |
|  | 3) | the request and response of REST services are not wrapped in envelopes and are not necessarily in XML format |
|  | 4) | None of the above. |

**Question 18 (1 point)**

Question 18 Saved

Which of the following is *false*?

Question 18 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | WCF is a set of technologies for building distributed systems in which system components communicate with one another over networks. |
|  | 2) | Since WCF is a common framework for all communication between systems, it allows you to learn only one programming model to use WCF. |
|  | 3) | Web services promote software reusability in distributed systems that typically execute across the Internet. |
|  | 4) | Web services allow its methods to be called by methods on other machines via different data formats and protocols. |

|  |
| --- |
| **Question 19** |

A WCF web service in Visual Web Developer consists of \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1) | a code-behind file |
|  |  | 2) | a Web.config file |
|  |  | 3) | an SVC file |
| Correct Response |  | 4) | All of the above |

**Question 20 (1 point)**

Question 20 Saved

The \_\_\_\_\_\_\_\_ attribute maps a method to a unique URL that can be accessed via an HTTP GET operation programmatically or in a web browser.

Question 20 options:

|  |  |  |
| --- | --- | --- |
|  | 1) | OperationContract |
|  | 2) | WebGet |
|  | 3) | OperationBinding |
|  | 4) | UriTemplate |