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A Composite Solution With Just One Click

Microsoft

98-361 PRACTICE EXAM

Microsoft MTA Software Development Fundamentals

Question: 1

You are creating an application for computers that run Windows XP or later. This application must run after the computer starts. The user must not be aware that the application is running.
The application performs tasks that require permissions that the logged-in user does not have.
Which type of application allows this behavior?

A. Windows Service application
B. Windows Forms application
C. DOS batch file
D. Terminate-and-stay-resident (TSR) program

Answer: A

Question: 2

An application presents the user with a graphical interface. The interface includes buttons that the user clicks to perform tasks. Each time the user clicks a button, a method is called that corresponds to that button.
Which term is used to describe this programming model?

A. Functional
B. Service oriented
C. Structured
D. Event driven

Answer: D

Question: 3

How does a console-based application differ from a Windows Forms application?

A. Console-based applications require the XNA Framework to run.
B. Windows Forms applications do not provide a method for user input.
C. Windows Forms applications can access network resources.
D. Console-based applications do not display a graphical interface.

Answer: D

Question: 4

Which type of Windows application presents a parent window that contains child windows?

A. Application programming interface (API)
B. Single-document interface (SDI)
C. Multiple-document interface (MDI)
D. Command-line interface (CLI)

Answer: C

Explanation:
A multiple document interface (MDI) is a graphical user interface in which multiple windows reside under a single parent window. Such systems often allow child windows to embed other windows inside them as well, creating complex nested hierarchies. This contrasts with single document interfaces (SDI) where all windows are independent of each other.

Question: 5

The purpose of a constructor in a class is to:

A. Initialize an object of that class.
B. Release the resources that the class holds.
C. Create a value type.
D. Inherit from the base class.

Answer: A

Explanation:
Each value type has an implicit default constructor that initializes the default value of that type.

Question: 6

A class named Manager is derived from a parent class named Employee. The Manager class includes characteristics that are unique to managers.
Which term is used to describe this object-oriented concept?

A. Encapsulation
B. Data modeling
C. Inheritance
D. Data hiding

Answer: C

Explanation:
Classes (but not structs) support the concept of inheritance. A class that derives from another class (the base class) automatically contains all the public, protected, and internal members of the base class except its constructors and destructors.
Incorrect:
not A: Encapsulation is sometimes referred to as the first pillar or principle of object-oriented programming. According to the principle of encapsulation, a class or struct can specify how accessible each of its members is to code outside of the class or struct. Methods and variables that are not intended to be used from outside of the class or assembly can be hidden to limit the potential for coding errors or malicious exploits.

Question: 7

Which term is used to describe a class that inherits functionality from an existing class?

A. Base class
B. Inherited class
C. Derived class
D. Superclass

Answer: C

Explanation:
Classes (but not structs) support the concept of inheritance. A class that derives from another class (the base class) automatically contains all the public, protected, and internal members of the base class except its constructors and destructors.

Question: 8

Two classes named Circle and Square inherit from the Shape class. Circle and Square both inherit Area from the Shape class, but each computes Area differently.
Which term is used to describe this object-oriented concept?

A. polymorphism
B. encapsulation
C. superclassing
D. overloading

Answer: A

Explanation:
You can use polymorphism to in two basic steps:
Create a class hierarchy in which each specific shape class derives from a common base class.
Use a virtual method to invoke the appropriate method on any derived class through a single call to the base class method.

Question: 9

You create an object of type ANumber. The class is defined as follows.

```
public Class ANumber
{
    private int _number = 7;

    public ANumber()
    {
    }

    public ANumber(int number)
    {
        _number = number;
    }
}
```

The code is executed as follows.

```
ANumber mynumber = new ANumber(3);
```

What is the value of _number after the code is executed?

A. Null
B. 0
C. 3
D. 7

Answer: C

Question: 10

You need to allow a consumer of a class to modify a private data member.
What should you do?

A. Assign a value directly to the data member.
B. Provide a private function that assigns a value to the data member.
C. Provide a public function that assigns a value to the data member.
D. Create global variables in the class.

Answer: C

Explanation:
In this example (see below), the Employee class contains two private data members, name and salary. As private members, they cannot be accessed except by member methods. Public methods named GetName and Salary are added to allow controlled access to the private members. The name member is accessed by way of a public method, and the salary member is accessed by way of a public read-only property.
Note: The private keyword is a member access modifier. Private access is the least permissive access level. Private members are accessible only within the body of the class or the struct in which they are declared
Example:

```
class Employee2
{
 private string name = "FirstName, LastName";
 private double salary = 100.0;
 public string GetName()
 {
  return name;
 }
 public double Salary
 {
  get { return salary; }
 }
}
```

Question: 11

You are designing a class for an application. You need to restrict the availability of the member variable accessCount to the base class and to any classes that are derived from the base class.
Which access modifier should you use?

A. Internal

B. Protected
C. Private
D. Public

Answer: C

Question: 12

You are creating an application that presents users with a graphical interface in which they can enter dat
a. The application must run on computers that do not have network connectivity.
Which type of application should you choose?
A. Console-based
B. Windows Forms
C. Windows Service
D. ClickOnce

Answer: B

Explanation:
Use Windows Forms when a GUI is needed.

Question: 13

You are creating an application that presents users with a graphical interface. Users will run this application from remote computers. Some of the remote computers do not have the . NET Framework installed. Users do not have permissions to install software.
Which type of application should you choose?

A. Windows Forms
B. Windows Service
C. ASP. NET
D. Console-based

Answer: C

Question: 14

The elements of an array must be accessed by:

A. Calling the item that was most recently inserted into the array.
B. Calling the last item in the memory array.
C. Using an integer index.
D. Using a first-in, last-out (FILO) process.

Answer: C

Question: 15

Simulating the final design of an application in order to ensure that the development is progressing as expected is

referred to as:

A. Analyzing requirements
B. Prototyping
C. Software testing
D. Flowcharting

Answer: C

Question: 16

You have a stack that contains integer values. The values are pushed onto the stack in the following order: 2,4,6,8.
The following sequence of operations is executed:
Pop
Push 3
Pop
Push 4
Push 6
Push 7
Pop
Pop
Pop
What is the value of the top element after these operations are executed?

A. 2
B. 3
C. 6
D. 7

Answer: B

Question: 17

What are two methods that can be used to evaluate the condition of a loop at the start of each iteration? (Each correct answer presents a complete solution. Choose two.)

A. If
B. Do. . . While
C. For
D. While

Answer: C, D

Explanation:
For and While constructs check at the start of each iteration.

Question: 18

You need to evaluate the following expression:

(A>B) AND (C<D)
What is the value of this expression if A=3, B=4, C=4, and D=5?

A. 0
B. 4
C. 5
D. False
E. Null
F. True

Answer: D

Question: 19

You are creating a variable for an application.
You need to store data that has the following characteristics in this variable:
Consists of numbers and characters
Includes numbers that have decimal points
Which data type should you use?

A. String
B. Float
C. Char
D. Decimal

Answer: A

Explanation:
Need a string to store characters.

Question: 20

You execute the following code.

```
bool beakerFull = true;
bool flameOn = false;
int iResult = 0;
if(beakerFull)
{
    if(flameOn)
    {
        iResult = 1;
    }
    else
    {
        iResult = 2;
    }
}
else
{
    iResult = 3;
}
```

What will the variable result be?

A. 0
B. 1
C. 2
D. 3

Answer: C

Question: 21

The purpose of the Catch section in an exception handler is to:

A. Break out of the error handler.
B. Conclude the execution of the application.
C. Execute code only when an exception is thrown.
D. Execute code regardless of whether an exception is thrown.

Answer: C

Question: 22

You execute the following code.

```
for(int i = 0; i <= 10; i+= 2)
{
    Console.WriteLine("Hello");
}
```

How many times will the word Hello be printed?

A. 5
B. 6

C. 10
D. 12

Answer: B

Question: 23

In the life cycle of an ASP. NET Web page, which phase follows the SaveStateComplete phase?

A. PostBack
B. PostInit
C. Load
D. Render

Answer: D

Explanation:
The SaveStateComplete event is raised after the view state and control state of the page and controls on the page are saved to the persistence medium.
This is the last event raised before the page is rendered to the requesting browser.

Question: 24

You are creating an ASP. NET Web application.
Which line of code should you use to require a control to process on the computer that hosts the application?

A. defaultRedirect="ServerPage. htm"
B. redirect="HostPage. htm"
C. AutoEvencWireup="true"
D. runat="server"

Answer: D

Question: 25

In this XHTML code sample, what will cause an error?

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
    <head>
        <title>The Title</title>
    </head>
    <body>
        <h1>This is a Heading.</h1>
        <p>This is a paragraph</p><br>
    </body>
</html>
```

A. All tags are not in uppercase.
B. The body tag is missing a background attribute.
C. The line break tag is incorrectly formatted.
D. The HTML tags do not read XHTML.

Answer: C

Explanation:
In XHTML, the <br> tag must be properly closed, like this: <br />.

Question: 26

You create an application that uses Simple Object Access Protocol (SOAP).
Which technology provides information about the application's functionality to other applications?

A. Web Service Description Language (WSDL)
B. Extensible Application Markup Language (XAML)
C. Common Intermediate Language (CIL)
D. Universal Description, Discovery, and Integration (UDDI)

Answer: A

Explanation:
WSDL is often used in combination with SOAP and an XML Schema to provide Web services over the Internet. A client program connecting to a Web service can read the WSDL file to determine what operations are available on the server. Any special datatypes used are embedded in the WSDL file in the form of XML Schema. The client can then use SOAP to actually call one of the operations listed in the WSDL file using for example XML over HTTP.

Question: 27

Which language allows you to dynamically create content on the client side?

A. Extensible Markup Language (XML)
B. Cascading Style Sheets (CSS)
C. Hypertext Markup Language (HTML)
D. JavaScript (JS)

Answer: D

Explanation:
JavaScript (JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed.

Question: 28

How should you configure an application to consume a Web service?

A. Add the Web service to the development computer.
B. Add a reference to the Web service in the application.
C. Add a reference to the application in the Web service.
D. Add the Web service code to the application.

Answer: B

Explanation:
Start by adding a Service Reference to the project. Right-click the ConsoleApplication1 project and choose “Add Service Reference”:

Question: 29

What are two possible options for representing a Web application within Internet Information Services (IIS)? (Each correct answer presents a complete solution. Choose two.)

A. Web site
B. Web directory
C. Virtual directory
D. Application server
E. Application directory

Answer: A, C

Explanation:
* Create a Web Application
An application is a grouping of content at the root level of a Web site or a grouping of content in a separate folder under the Web site's root directory. When you add an application in IIS 7, you designate a directory as the application root, or starting point, for the application and then specify properties specific to that particular application, such as the application pool that the application will run in.
* You can make an Existing Virtual Directory a Web Application.

Question: 30

Which language uses Data Definition Language (DDL) and Data Manipulation Language (DML)?

A. SQL
B. C++
C. Pascal
D. Java

Answer: A

Explanation:
SQL uses DDL and DML.

Question: 31

A table named Student has columns named ID, Name, and Age. An index has been created on the ID column. What advantage does this index provide?

A. It reorders the records alphabetically.
B. It speeds up query execution.
C. It minimizes storage requirements.
D. It reorders the records numerically.

Answer: B

Explanation:
Faster to access an index table.

Question: 32

Which language was designed for the primary purpose of querying data, modifying data, and managing databases in a Relational Database Management System?

A. Java
B. SQL
C. C++
D. Visual Basic

Answer: B

Explanation:
SQL is a special-purpose programming language designed for managing data held in a relational database management system (RDBMS).

Question: 33

You need to ensure the data integrity of a database by resolving insertion, update, and deletion anomalies.
Which term is used to describe this process in relational database design?

A. Isolation
B. Normalization
C. Integration
D. Resolution

Answer: B

Explanation:
Database normalization is the process of organizing the fields and tables of a relational database to minimize redundancy. Normalization usually involves dividing large tables into smaller (and less redundant) tables and defining relationships between them. The objective is to isolate data so that additions, deletions, and modifications of a field can be made in just one table and then propagated through the rest of the database using the defined relationships.

Question: 34

In your student directory database, the Students table contains the following fields:
firstName
lastName
emailAddress
telephoneNumtoer
You need to retrieve the data from the firstName, lastName, and emailAddress fields for all students listed in the directory. The results must be in alphabetical order according to lastName and then firstName.
Which statement should you use?

A.
```
SELECT firstName, lastName, emailAddress
    FROM Students
    ORDER BY lastName, firstName
```

B.
```
SELECT firstName, lastName, emailAddress
    FROM Students
    SORT BY lastName, firstName
```

C.
```
SELECT firstName, lastName
    FROM Students
    ORDER BY lastName, firstName, emailAddress
```

D.
```
SELECT firstName, lastName, emailAddress
    FROM Students BY lastName, firstName
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Explanation:
to sort use: ORDER BY LastName, FirstName

Question: 35

A data warehouse database is designed to:

A. Enable business decisions by collecting, consolidating, and organizing data.
B. Support a large number of concurrent users.
C. Support real-time business operations.
D. Require validation of incoming data during real-time business transactions.

Answer: A

Question: 36

You are creating an application that presents the user with a Windows Form. You need to configure the application to display a message box to confirm that the user wants to close the form.
Which event should you handle?

A. Deactivate
B. Leave
C. FormClosed
D. FormClosing

Answer: D

Explanation:
The Closing event occurs as the form is being closed.

Question: 37

Which type of application has the following characteristics when it is installed?
Runs continuously in the background by default when the startup type is set to automatic
Presents no user interface

A. Windows Service
B. Windows Forms
C. Console-based
D. Batch file

Answer: A

Explanation:
A Windows service runs in the background and has no interface.

Question: 38

You are creating an application that accepts input and displays a response to the user. You cannot create a graphical interface for this application.
Which type of application should you create?

A. Windows Forms
B. Windows Service
C. Web-based
D. Console-based

Answer: C

Question: 39

You need to create an application that processes data on a last-in, first-out (LIFO) basis.
Which data structure should you use?

A. Queue
B. Tree
C. Stack
D. Array

Answer: C

Explanation:
A stack implements LIFO.

Question: 40

You are creating an application for a help desk center. Calls must be handled in the same order in which they were received.
Which data structure should you use?

A. Binary tree
B. Stack
C. Hashtable
D. Queue

Answer: D

Explanation:
A queue keeps the order of the items.

Question: 41

In the application life cycle, the revision of an application after it has been deployed is referred to as:

A. Unit testing
B. Integration
C. Maintenance
D. Monitoring

Answer: C

Question: 42

In which order do the typical phases of the Software Development Life Cycle occur?

A. Development, design, requirements gathering, and testing
B. Design, requirements gathering, development, and testing
C. Design, development, requirements gathering, and testing
D. Requirements gathering, design, development, and testing

Answer: D

Question: 43

You execute the following code.

```
bool beakerFull = true;
bool flameOn = false;
int iResult;

switch (beakerFull)
{
    case true:
        switch (flameOn)
        {
                case true:
                iResult = 1;
                break;
                case false:
                iResult = 2;
                break;
        }
    break;
    case false:
        switch (flameOn)
        {
                case false:
                iResult = 3;
                break;
                case true:
                iResult = 4;
                break;
        }
    break;
}
```

What will the variable result be?

A. 1
B. 2
C. 3
D. 4

Answer: B

Question: 44

You execute the following code.

```
for(int i = 0; i <= 100; i++)
{
    if (i % 2 != 0)
    {
        Console.WriteLine("Hello")
    }
}
```

How many times will the word Hello be printed?

A. 49
B. 50
C. 51
D. 100

Answer: B

Explanation:
The % operator computes the remainder after dividing its first operand by its second. All numeric types have predefined remainder operators.
In this case the reminder will be nonzero 50 times (for i with values 1, 3, 5,..,99).

Question: 45

You are creating a routine that will perform calculations by using a repetition structure. You need to ensure that the entire loop executes at least once.
Which looping structure should you use?

A. For
B. While
C. Do„While
D. For. „Each

Answer: C

Explanation:
In a Do..While loop the test is at the end of the structure, so it will be executed at least once.

Question: 46

The purpose of the Finally section in an exception handler is to:

A. Execute code regardless of whether an exception is thrown.
B. Conclude the execution of the application.
C. Execute code only when an exception is thrown.
D. Break out of the error handler.

Answer: A

Explanation:
By using a finally block, you can clean up any resources that are allocated in a try block, and you can run code even if an exception occurs in the try block. Typically, the statements of a finally block run when control leaves a try statement. The transfer of control can occur as a result of normal execution, of execution of a break, continue, goto, or return statement, or of propagation of an exception out of the try statement.

Question: 47

You are creating the necessary variables for an application. The data you will store in these variables has the following characteristics:
Consists of numbers
Includes numbers that have decimal points
Requires more than seven digits of precision
You need to use a data type that will minimize the amount of memory that is used.
Which data type should you use?

A. decimal
B. double
C. byte
D. float

Answer: B

Explanation:
The double keyword signifies a simple type that stores 64-bit floating-point values.
Precision: 15-16 digits
Incorrect:
Not D: The float keyword signifies a simple type that stores 32-bit floating-point values.
Precision: 7 digits

Question: 48

Your database administrators will not allow you to write SQL code in your application.
How should you retrieve data in your application?

A. Script a SELECT statement to a file.
B. Query a database view.
C. Call a stored procedure.
D. Reference an index in the database.

Answer: C

Explanation:
The SQL will only be inside the stored procedure.

Question: 49

You are reviewing a design for a database. A portion of this design is shown in the exhibits. Note that you may choose either the Crow's Foot Notation or Chen Notation version of the design. (To view the Crow's Foot Notation, click the Exhibit A button. To view the Chen Notation, click the Exhibit B button.)

Exhibit A

Exhibit B

Which term is used to describe the Customer component?

A. Field
B. Attribute
C. Property

D. Entity

Answer: D

Explanation:
Customer is a table (entity).

Question: 50

You have a server that limits the number of data connections.
What should you use to optimize connectivity when the number of users exceeds the number of available connections?

A. Connection timeouts
B. Named pipes
C. Normalization
D. Connection pooling

Answer: D

Explanation:
In software engineering, a connection pool is a cache of database connections maintained so that the connections can be reused when future requests to the database are required.

Question: 51

Your application must pull data from a database that resides on a separate server.
Which action must you perform before your application can retrieve the data?

A. Configure the network routers to allow database connections.
B. Install the database on each client computer.
C. Create a routine that bypasses firewalls by using Windows Management Instrumentation (WMI).
D. Establish a connection to the database by using the appropriate data provider.

Answer: D

Question: 52

You have a class named Truck that inherits from a base class named Vehicle. The Vehicle class includes a protected method named brake ().
How should you call the Truck class implementation of the brake () method?

A. Vehicle. brake ();
B. This. brake ();
C. MyBase. brake();
D. Truck. brake ();

Answer: C

Explanation:
The MyBase keyword behaves like an object variable referring to the base class of the current instance of a class.MyBase is commonly used to access base class members that are overridden or shadowed in a derived class.

Question: 53

Which of the following must exist to inherit attributes from a particular class?

A. Public properties
B. A has-a relationship
C. An is-a relationship
D. Static members

Answer: B

Explanation:
Visual Basic has been a pioneer of binary code reuse — controls being the classic example. You reuse the code in a control by placing an instance of the control on your form. This is known as a containment relationship or a has-arelationship; that is, the form contains or has a CommandButton.

Question: 54

Which type of function can a derived class override?

A. a non-virtual public member function
B. a private virtual function
C. a protected virtual member function
D. a static function

Answer: C

Explanation:
You can override virtual functions defined in a base class from the Visual Studio.
The override modifier is required to extend or modify the abstract or virtual implementation of an inherited method, property, indexer, or event.

Question: 55

Class C and Class D inherit from Class B. Class B inherits from Class
A. The classes have the methods shown in the following table.

Class	Method
A	m1
B	m2
C	m3
D	m4

All methods have a protected scope.
Which methods does Class C have access to?
A. only m3, m4

B. only m2, m3
C. only ml, m3
D. m1, m3, m3
E. m2, m3, m4
F. m1, m2, m3

Answer: F

Question: 56

You need to create a property in a class. Consumers of the class must be able to read the values of the property. Consumers of the class must be prevented from writing values to the property.
Which property procedure should you include?

A. Return
B. Get
C. Set
D. Let

Answer: B

Question: 57

How many parameters can a default constructor have?

A. 0
B. 1
C. 2
D. 3 or more

Answer: A

Explanation:
If a class contains no instance constructor declarations, a default instance constructor is automatically provided. That default constructor simply invokes the parameterless constructor of the direct base class.

Question: 58

Which function does Simple Object Access Protocol (SOAP) provide when using Web services?

A. directory of registered Web services
B. communications protocol
C. security model
D. model for describing Web services

Answer: B

Explanation:
SOAP, originally defined as Simple Object Access Protocol, is a protocol specification for exchanging structured

information in the implementation of web services in computer networks. It relies on XML Information Set for its message format, and usually relies on other application layer protocols, most notably Hypertext Transfer Protocol (HTTP) or Simple Mail Transfer Protocol (SMTP), for message negotiation and transmission.

Question: 59

Which term is used to describe small units of text that are stored on a client computer and retrieved to maintain state?

A. trace
B. cookie
C. server transfer
D. cross-page post

Answer: B

Explanation:
HTTP is a stateless protocol. This means that user data is not persisted from one Web page to the next in a Web site. One way to maintain state is through the use of cookies. Cookies store a set of user specific information, such as a reference identifier for a database record that holds customer information.

Question: 60

You are creating a Web application. The application will be consumed by client computers that run a variety of Web browsers.
Which term is used to describe the process of making the application available for client computers to access?

A. Casting
B. Deploying
C. Hosting
D. Virtualization

Answer: C

Explanation:
You host web applications.

Question: 61

You are writing a Web application that processes room reservation requests. You need to verify that the room that a guest has selected is not already reserved by another guest.
Which type of programming should you use to determine whether the room is still available when the request is made?

A. client-side
B. server-side
C. multithreaded
D. batch processing

Answer: B

Explanation:
For room availability we need to check a database located on a server.

Question: 62

You need to group all the style settings into a separate file that can be applied to all the pages in a Web application. What should you do?

A. Use a Cascading Style Sheet (CSS).
B. Use inline styles.
C. Use an Extensible Markup Language (XML) schema.
D. Use a WebKit.

Answer: A

Explanation:
Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language.
CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts.

Question: 63

Where must Internet Information Services (IIS) be installed in order to run a deployed ASP. NET application?

A. on the computer that you plan to deploy from
B. on the computer that hosts the application
C. on the Application Layer Gateway Service
D. on the client computers

Answer: B

Explanation:
IIS is run on the web server. The web server is hosting the application.

Question: 64

What is displayed when you attempt to access a Web service by using a Web browser?

A. a listing of methods that are available in the Web service
B. a directory listing of the Web service's application structure
C. an error page explaining that you have accessed the Web service incorrectly
D. a visual depiction of your preliminary connection to the Web service

Answer: A

Question: 65

You are writing a Web application that processes room reservation requests. You need to verify that the room that a guest has selected is not already reserved by another guest.
Which type of programming should you use to determine whether the room is still available when the request is made?

A. functional
B. dynamic
C. in-browser
D. server-side

Answer: D

Question: 66

HOTSPOT
You are developing a web application.
You need to create the following graphic by using Cascading Style Sheets (CSS):

Use the drop-down menus to select the answer choice that completes each statement. Each correct selection is worth one point.

Answer Area

For the CSS Style background-image, you should use the value **[answer choice]**

For the CSS Style border-radius, you should use the value **[answer choice]**

Answer Area

For the CSS Style background-image, you should use the value **[answer choice]**

- linear-gradient(to top, green, black);
- linear-gradient(to bottom, green, black);
- radial-gradient(green, black);
- repeating-linear-gradient(green, black);

For the CSS Style border-radius, you should use the value **[answer choice]**

- 10px;
- 10px, 10px, 10px;
- inherit;
- initial;

Answer:

Answer Area

For the CSS Style background-image, you should use the value **[answer choice]**

- linear-gradient(to top, green, black);
- linear-gradient(to bottom, green, black);
- radial-gradient(green, black);
- repeating-linear-gradient(green, black);

For the CSS Style border-radius, you should use the value **[answer choice]**

- 10px;
- 10px, 10px, 10px;
- inherit;
- initial;

Question: 67

You are migrating several HTML pages to your website. Many of these pages contain HTML and <font> tags.
Which XHTML document type declaration should you use?

A.
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
```

B.
```
<!DOCTYPE html>
```

C.
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
```

D.
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question: 68

This question requires that you evaluate the underlined text to determine if it is correct.
When creating a site to utilize message queuing, the IP address must be configured to MSMQ.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. protocol
C. host header
D. port

Answer:

Question: 69

You need to debug a Windows Service application by using breakpoints.
What should you do?

A. Write all events to an event log.
B. Set the Windows Service status to Paused.
C. Implement the Console.WriteLine method throughout the Windows Service.

D. Use the Attach to Process menu in Microsoft Visual Studio.

Answer: B

Question: 70

HOTSPOT
You are creating a Windows Store application that uses the following gesture:

Use the drop-down menus to select the answer choice that completes each statement. Each correct selection is worth one point.

Answer Area

The gesture shown in the graphic is called **[answer choice]**. [ ]

The surface displayed after the gesture has been completed is the **[answer choice]**. [ ]

Answer Area

The gesture shown in the graphic is called **[answer choice]**. [ ]
- moving
- pushing
- sliding
- swiping

The surface displayed after the gesture has been completed is the **[answer choice]**. [ ]
- app bar
- canvas
- charms
- context menu

Answer:

Answer Area

The gesture shown in the graphic is called **[answer choice]**. [ ]
- moving
- pushing
- sliding
- swiping

The surface displayed after the gesture has been completed is the **[answer choice]**. [ ]
- app bar
- canvas
- charms
- context menu

Question: 71

What does the Console.Error property do within a console-based application?

A. sets the standard error input stream

B. gets the standard error output stream
C. gets the standard error input stream
D. sets the standard error output stream

Answer: D

Question: 72

This question requires that you evaluate the underlined text to determine if it is correct.
The default entry point for a console application is the Class method.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. Main
C. Program
D. Object

Answer: B

Question: 73

This question requires that you evaluate the underlined text to determine if it is correct.
Converting an object to a more general type is called upcasting.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. downcasting
C. interfacing
D. flexing

Answer: A

Question: 74

DRAG DROP
You are extending an application that stores and displays the results of various types of foot races. The application contains the following definitions:

```
public interface IDisplayResult
{
  void Display();
}

public class Race
{
  public int Seconds;

  public virtual void Display()
  {
    Console.WriteLine(Seconds);
  }
}
```

The following code is used to display the result for a race:

```
var r1 = new FootRace();
var r2 = r1 as IDisplayResult;
r1.Seconds = 99;

r1.Display();
r2.Display();
r1.DisplayRaw();
```

The contents of the console must be as follows:
99 seconds
1.65 minutes
99
You need to implement the FootRace class.
Match the method declaration to the method body, (To answer, drag the appropriate declaration from the column on the left to its body on the right. Each declaration may be used once, more than once, or not at all. Each correct match is worth one point.)

Code Segments

```
public override void Display()
```

```
public void DisplayRaw()
```

```
void IDisplayResult.Display()
```

```
private void Display()
```

Answer Area

```
public class FootRace : Race, IDisplayResult
{
    Code Segment
    {
        Console.WriteLine(Seconds + " seconds");
    }
    Code Segment
    {
        base.Display();
    }
    Code Segment
    {
      Console.WriteLine(Seconds / 60d + " minutes");
    }
}
```

Answer:

Answer Area

```
public class FootRace : Race, IDisplayResult
{
    public override void Display()
    {
        Console.WriteLine(Seconds + " seconds");
    }
    public void DisplayRaw()
    {
        base.Display();
    }
    void IDisplayResult.Display()
    {
        Console.WriteLine(Seconds / 60d + " minutes");
    }
}
```

Question: 75

You have a class named Glass that inherits from a base class named Window. The Window class includes a protected method named break().
How should you call the Glass class implementation of the break() method?

A. Window.break();
B. Glass.break();
C. this.break();
D. base.break();

Answer: B

Question: 76

You are developing an application that tracks tennis matches. A match is represented by the following class:

```
public class Match
{
    public Match()
    {
        Location = "unknown";
    }

    public string Location { get; set; }
    public DateTime? MatchDate { get; set; }
}
```

A match is created by using the following code:

```
var match = new Match
    {
        Location = "north region",
        MatchDate = new DateTime(2013, 4, 14),
    };
```

How many times is the Location property on the newly created Match class assigned?

A. 0
B. 1
C. 2
D. 3

Answer: C

Question: 77

HOTSPOT
You have a base class named Tree with a friend property named color and a protected property named NumberOfLeaves. In the same project, you also have a class named Person.
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
Methods in the Person class can access the color property.	○	○
Methods in the Person class can access the NumberOfLeaves property.	○	○
Methods in the Tree class can access all private properties in Person.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
Methods in the Person class can access the color property.	○	○
Methods in the Person class can access the NumberOfLeaves property.	○	○
Methods in the Tree class can access all private properties in Person.	○	○

Question: 78

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
A linked list has a maximum of 100 nodes.	○	○
You can add new nodes anywhere in a linked list.	○	○
A linked list can be sorted.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
A linked list has a maximum of 100 nodes.	○	◉
You can add new nodes anywhere in a linked list.	◉	○
A linked list can be sorted.	◉	○

Question: 79

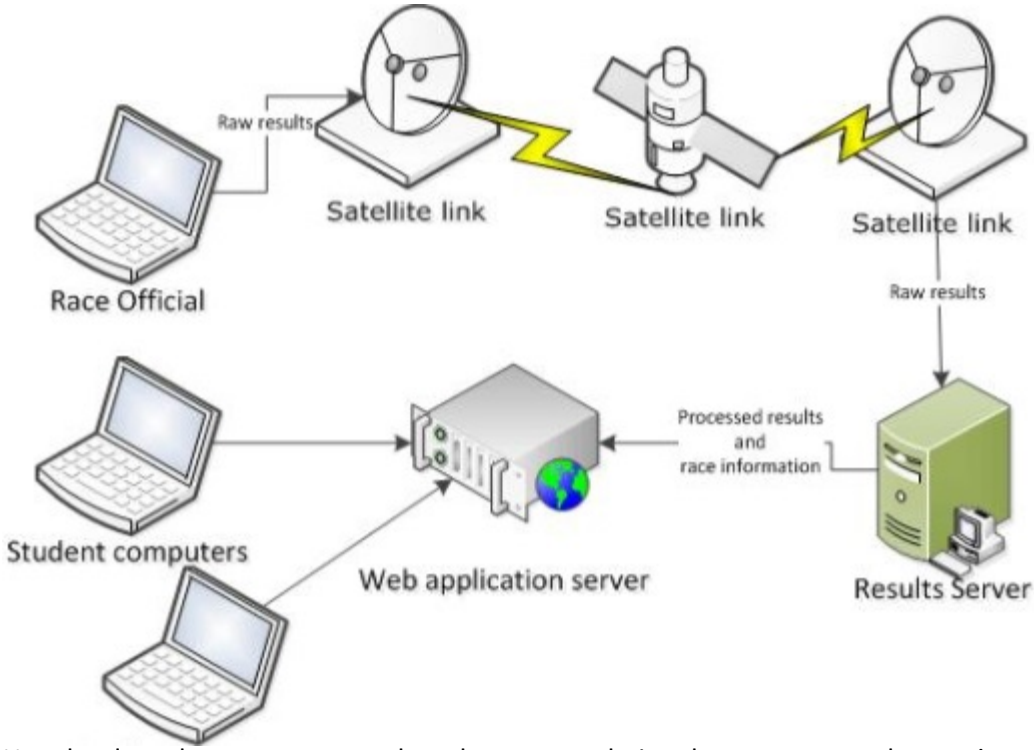
This question requires that you evaluate the underlined text to determine if it is correct.
The duplication of code so that modifications can happen in parallel is known as separating.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. branching
C. merging
D. splitting

Answer: B

Question: 80

HOTSPOT
You are reviewing the architecture for a system that allows race officials to enter the results of 5K race results. The results are then made available to students using a web application. The architecture is shown below:



Use the drop-down menus to select the answer choice that answers each question. Each correct selection is worth one point.

Answer Area

To minimize the time between when a race official records the results and when the results are available on the web, which part of the system is critical? [ ]

To increase the number of students that can access race results, what element should be added to the system? [ ]

Answer Area

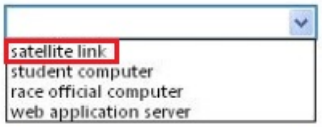
To minimize the time between when a race official records the results and when the results are available on the web, which part of the system is critical? [ ]
- satellite link
- student computer
- race official computer
- web application server

To increase the number of students that can access race results, what element should be added to the system? [ ]
- satellite link
- race officials
- results servers
- web application servers

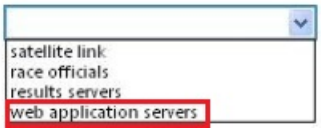
Answer:

Answer Area

To minimize the time between when a race official records the results and when the results are available on the web, which part of the system is critical?



To increase the number of students that can access race results, what element should be added to the system?



Question: 81

DRAG DROP

You are developing an application that displays a list of race results. The race results are stored in the following class:

```
public class RaceSpeedRecord
{
  public RaceSpeedRecord Faster;
  public RaceSpeedRecord Slower;

  public string Race;
  public double Time;
}
```

The code that manages the list is as follows:

```
public class Results
{
  public Results()
  {
    CurrentOlympicRecord = new RaceSpeedRecord();
  }

  public RaceSpeedRecord CurrentOlympicRecord;

  public void AddRace(string raceName, double time)
  {
  }
}
```

You need to implement the Add Race method.

Match the code segment to its location. (To answer, drag the appropriate code segment from the column on the left to its location on the right, Each code segment may be used once, more than once, or not at all. Each correct match is worth one point.)

Code Segments

- current.Faster
- current.Slower
- current.Time
- current.Race

Answer Area

```
public void AddRace(string raceName, double time)
 {
      var current = CurrentOlympicRecord;

        while (  Code Segment  > time)

          current =  Code Segment  ;

        var race = new RaceSpeedRecord
        {
         Race = raceName,
         Time = time,

          Faster =  Code Segment

          Slower =  Code Segment

          }

          current.Faster.Slower = race;
          current.Slower.Faster = race;

   }
 }
```

Answer:

Answer Area

```
public void AddRace(string raceName, double time)
 {
      var current = CurrentOlympicRecord;

        while (  current.Time  > time)

          current =  current.Slower  ;

        var race = new RaceSpeedRecord
        {
         Race = raceName,
         Time = time,

          Faster =  current.Faster

          Slower =  current.Slower

          }

          current.Faster.Slower = race;
          current.Slower.Faster = race;

   }
 }
```

Question: 82

DRAG DROP

You are developing an application to display track and field race results.

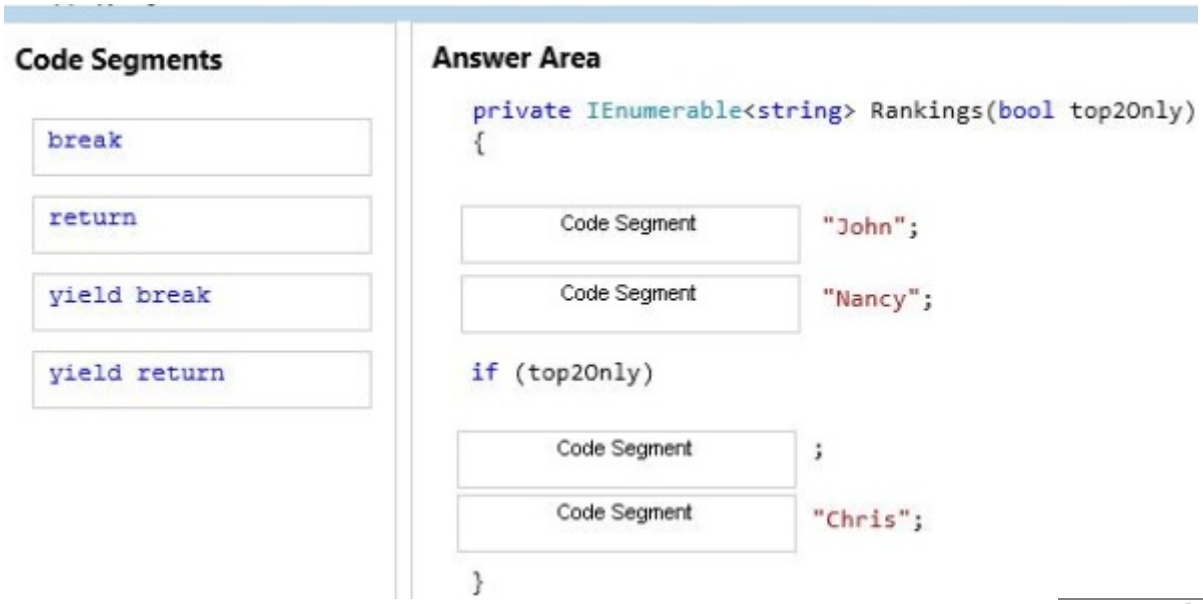
The application must display the race results twice. The first time it must display only the winner and runner-up. The

second time it must display all participants. The code used to display results is shown below.

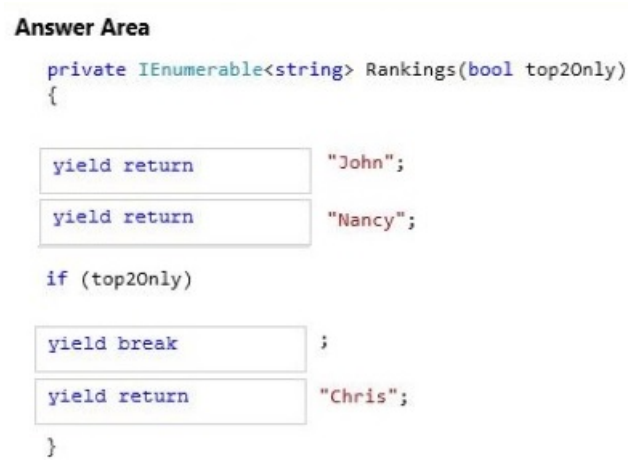
```
public void Display()
{
  // display top two
  foreach (var ranking in Rankings(true))
  {

    DisplayName(ranking);
  }

  // display all
  foreach (var ranking in Rankings(false))
  {
    DisplayName(ranking);
  }
}
```

You need to implement the RankingsO function.

Complete the function to meet the requirements. {To answer, drag the appropriate code segment from the column on the left to its location on the right. Each code segment may be used once, more than once, or not at all. Each correct match is worth one point.)



Answer:



Question: 83

HOTSPOT

You are reviewing the following code that saves uploaded images.

```
struct ImageInfo
{
  public byte[] Data;
  public int Length;
  public Guid Id;
}

void Post()
{
  var uploaded = PostedImage();
  var newImage = new ImageInfo();
  newImage.Data = uploaded;
  newImage.Length = uploaded.Length;
  newImage.Id = Guid.NewGuid();
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
The bytes that comprise the image are stored on the stack	○	○
The length of the image data is stored on the heap.	○	○
The Id of the image is stored on the stack.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
The bytes that comprise the image are stored on the stack	○	○
The length of the image data is stored on the heap.	○	○
The Id of the image is stored on the stack.	○	○

Question: 84

The following functions are defined:

```
private static int Printer(int j)
{
  for (var i = j; i > 0; i = Printer(i - 1))
  {
    Console.Write(i);
  }
  return j;
}
```

What does the console display after the following line?
Printer(2);

A. 210
B. 211
C. 2101
D. 2121

Answer: B

Question: 85

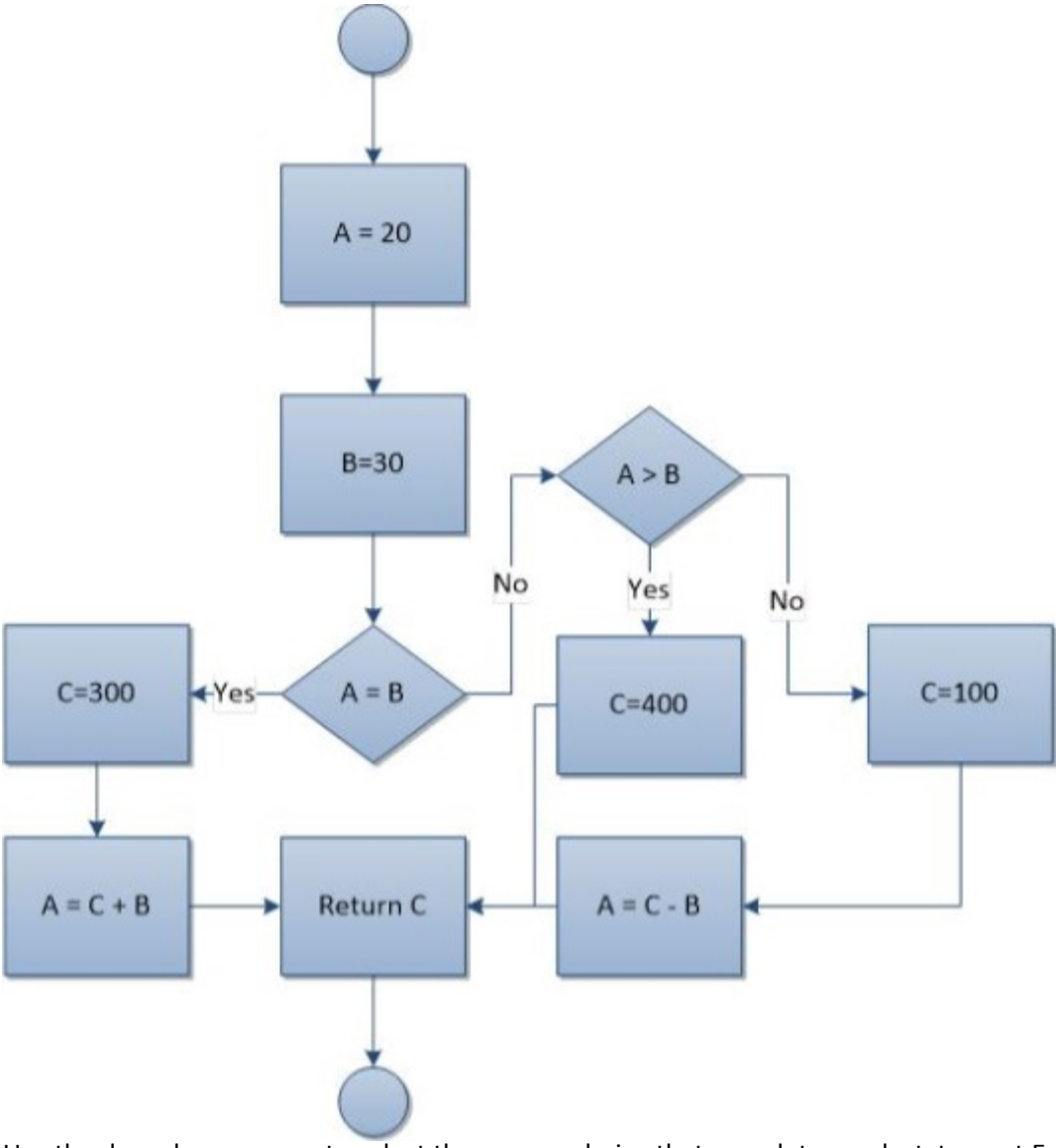
The throw keyword is used to perform which two actions? (Choose two.)

A. stop processing of the code
B. move error handling to a separate thread
C. raise exceptions
D. re-throw exceptions as a different type

Answer: AB

Question: 86

HOTSPOT
You have the following flowchart:



Use the drop-down menus to select the answer choice that completes each statement Each correct selection is worth one point.

Answer Area

The value that is returned is **[answer choice]**.

The value of A is **[answer choice]**.

Answer Area

The value that is returned is **[answer choice]**.

20
100
300
400

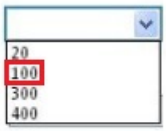
The value of A is **[answer choice]**.

20
30
70
330

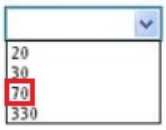
Answer:

Answer Area

The value that is returned is **[answer choice]**.



The value of A is **[answer choice]**.



Question: 87

Which three phrases are advantages of connection pooling? (Choose three.)

A. reduces time to create a connection
B. requires no configuration
C. reduces load on the server
D. improved scalability
E. improved performance

Answer: ABC

Question: 88

You are creating a database for a student directory. The Students table contains the following fields:

```
firstName
lastName
emailAddress
telephoneNumber
```

Which statement will retrieve only the first name, last name, and telephone number for every student listed in the directory?

A. WHERE Students SELECT *
B. SELECT firstName, lastName, telephoneNutnber FROM Students
C. SELECT firstName, lastName, telephoneNumber IN Students
D. SELECT * FROM Students
E. WHERE Students SELECT firstName, lastName, telephoneNumber

Answer: D

Question: 89

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
An entity relationship diagram (ERD) is designed for an object-oriented database.	○	○
An entity relationship diagram (ERD) contains entities, relationships, and attributes.	○	○
Cardinality refers to how one table is linked to another table; as one-to-many.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
An entity relationship diagram (ERD) is designed for an object-oriented database.	○	○
An entity relationship diagram (ERD) contains entities, relationships, and attributes.	○	○
Cardinality refers to how one table is linked to another table; as one-to-many.	○	○

Question: 90

This question requires that you evaluate the underlined text to determine if it is correct.
The benefit of using a transaction when updating multiple tables is that the update cannot fail.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. succeeds or fails as a unit
C. finishes as quickly as possible
D. can be completed concurrently with other transactions

Answer: B

Question: 91

What are two advantages of normalization in a database? (Choose two)

A. prevents data inconsistencies
B. reduces schema limitations
C. minimizes impact of data corruption
D. decreases space used on disk

Answer: AB

Question: 92

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
A queue's items are stored in the order they were added.	○	○
A queue is a first in, first out (FIFO) data structure.	○	○
A queue has a limited number of items.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
A queue's items are stored in the order they were added.	○	○
A queue is a first in, first out (FIFO) data structure.	○	○
A queue has a limited number of items.	○	○

Question: 93

This question requires that you evaluate the underlined text to determine if it is correct.
Unit testing is the final set of tests that must be completed before a feature or product can be considered finished.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. User acceptance
C. System
D. Integration

Answer: B

Question: 94

You need to create a stored procedure that passes in a person's name and age.
Which statement should you use to create the stored procedure?

A.
```
CREATE PROCEDURE StoreData (@UserName, @Age)
```

B.
```
CREATE PROCEDURE StoreData
  @UserName nvarchar(255),
  @Age int
```

C.
```
CREATE PROCEDURE StoreData
  @UserName char,
  @Age double
```

D.
```
UPDATE PROCEDURE StoreData
  @UserName nvarchar(255),
  @Age int
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question: 95

You have a SQL Server database named MyDB that uses SQL Server Authentication.
Which connection string should you use to connect to MyDB?

A. Data Source=MyDB; UserID=username; Password=P@sswOrd; Initial Catalog=Sales
B. Data Source=MyDB; Integrated Security=SSPI; Initial Catalog=Sales
C. Data Source=MyDB; Integrated Security=True; Initial Catalog=Sales
D. Data Source=MyDB; Trusted_Connection=True; MultipleActiveResultSets=True; Initial Catalog=Sales

Answer: A

Question: 96

You are developing a database that other programmers will query to display race results.
You need to provide the ability to query race results without allowing access to other information in the database.
What should you do?

A. Disable implicit transactions.
B. place the query jnt0 a stored procedure.
C. Create an index on the result table.
D. Add an AFTER UPDATE trigger on the result table to reject updates.

Answer: A

Question: 97

This question requires that you evaluate the underlined text to determine if it is correct.
A piece of text that is 4096 bytes or smaller and is stored on and retrieved from the client computer to maintain state

is known as a ViewState.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed'' if the underlined text makes the statement correct.

A. No change is needed
B. cookie
C. form post
D. QueryString

Answer: B

Question: 98

This question requires that you evaluate the underlined text to determine if it is correct.
Internet Information Services (IIS) must be installed on the client computers in order to run a deployed ASP.NET application.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. computer that hosts the application
C. computer that you plan to deploy from
D. Application Layer Gateway Service

Answer: B

Question: 99

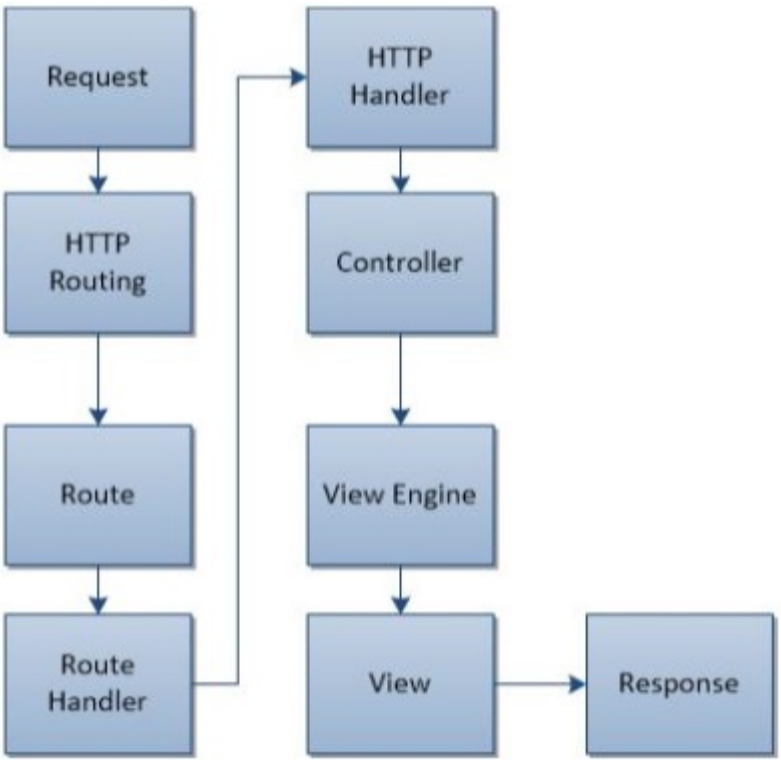
Which programming language is characterized as client-side, dynamic and weakly typed?

A. JavaScript
B. HTML
C. ASP.NET
D. C#

Answer: D

Question: 100

HOTSPOT
The ASP.NET MVC page lifecycle is shown in the following graphic:



Use the drop-down menus to select the answer choice that completes each statement Each correct selection is worth one point.

Answer Area

The **[answer choice]** event determines which action method is needed and then calls that method. [ ]

The URL pattern is matched during the **[answer choice]** event. [ ]

Answer Area

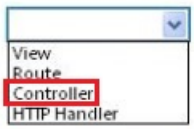
The **[answer choice]** event determines which action method is needed and then calls that method. [ ]
- View
- Route
- Controller
- HTTP Handler

The URL pattern is matched during the **[answer choice]** event. [ ]
- View
- Route
- Controller
- HTTP Handler

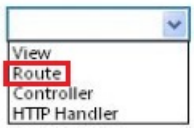
Answer:

Answer Area

The **[answer choice]** event determines which action method is needed and then calls that method.



The URL pattern is matched during the **[answer choice]** event.



Question: 101

When a web service is referenced from a client application in Microsoft Visual Studio, which two items are created? (Choose two.)

A. a stub
B. a.wsdl file
C. a proxy
D. a .disco file

Answer: AD

Question: 102

All objects in .NET inherit from which item?

A. the System.Object class
B. a value type
C. a reference type
D. the System.Type class

Answer: A

Question: 103

You have a class with a property.
You need to ensure that consumers of the class can write to the value of the property.
Which keyword should you use?

A. value
B. add
C. get
D. set

Answer: A

Question: 104

HOTSPOT
You are reviewing the following class that is used to manage the results of a 5K race:

```
public class Player
{
  private string _name;
  public const string Key = "player";

  public bool MatchName(string searchTerm)
  {
    return _name.ToLower() == searchTerm;
  }

  public void SetResult(int rank, string name)
  {
    if (_name != null)
      return;

    Ranking = rank;
    _name = name;
  }

  public int Ranking { get; private set; }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
You can only set the player's ranking once.	○	○
If you call the MatchName method, the code will throw an exception.	○	○
You can change Key from "player" to "racer".	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
You can only set the player's ranking once.	○	○
If you call the MatchName method, the code will throw an exception.	○	○
You can change Key from "player" to "racer".	○	○

Question: 105

You are creating an application that presents the user with a Windows Form.
Which event is triggered each time the Windows Form receives focus?

A. Eriter
B. Paint
C. Load
D. Activated

Answer: A

Question: 106

What are the three basic states that a Windows service can be in? (Choose three.)

A. halted
B. running
C. stopped
D. paused
E. starting

Answer: BCE

Question: 107

You have a Windows Service running in the context of an account that acts as a non-privileged user on the local computer. The account presents anonymous credentials to any remote server.
What is the security context of the Windows Service?

A. LocalSystem
B. User
C. NetworkService
D. LocalService

Answer: B

Question: 108

This question requires that you evaluate the underlined text to determine if it is correct.
Arguments are passed to console applications as a Hashtable object.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed'' if the underlined text makes the statement correct.

A. No change is needed
B. String Array
C. StoredProcedureCollection
D. Dictionary

Answer: B

Question: 109

You run the following code:

```
int a = 10;
int b = 20;
int c = 30;
int result = 0;

if (a <= b || c > a)
  result = 10;
else if (a <= b || c <= a)
  result = 20;
else
  result = 30;
```

What is the value of result when the code has completed?

A. 0
B. 10
C. 20
D. 30

Answer: B

Question: 110

This question requires that you evaluate the underlined text to determine if it is correct.
To minimize the amount of storage used on the hard drive by an application that generates many small files, you should make the partition as small as possible.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed'' if the underlined text makes the statement correct.

A. No change is needed
B. file allocation table
C. block size
D. folder and file names

Answer: C

Question: 111

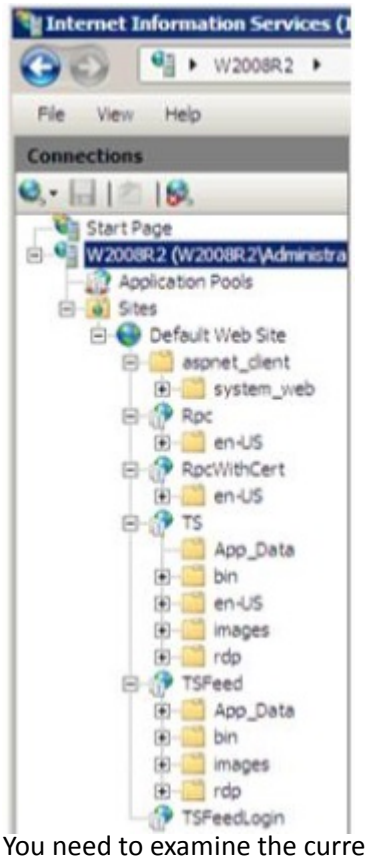
You are designing a Windows Store application.
You need to design the application so that users can share content by connecting two or more devices by physically tapping the devices together.
Which user experience (UX) guideline for Windows Store applications should you use?

A. Share and data exchange
B. location-awareness
C. device-awareness
D. proximity gestures

Answer: A

Question: 112

HOTSPOT
You open the Internet Information Services 7.5 Manager console as shown in the following exhibit:



You need to examine the current configuration of the server W2008R2.
Use the drop-down menus to select the answer choice that answers each question. Each correct selection is worth one point.

Answer Area

How many sites are configured on server W2008R2?

How many applications are configured on server W2008R2?

Answer Area

How many sites are configured on server W2008R2?

0
1
5
13

How many applications are configured on server W2008R2?

0
1
5
13

Answer:

Answer Area

How many sites are configured on server W2008R2?

0
1
5
13

How many applications are configured on server W2008R2?

0
1
5
13

Question: 113

HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Statement	Yes	No
XHTML attribute names must be in uppercase.	○	○
XHTML attribute values must be in quotation marks.	○	○
XHTML attribute minimization is forbidden.	○	○

Answer:

Answer Area

Statement	Yes	No
XHTML attribute names must be in uppercase.	○	◉
XHTML attribute values must be in quotation marks.	◉	○
XHTML attribute minimization is forbidden.	◉	○

Question: 114

You have a website that includes a form for usemame and password.

You need to ensure that users enter their username and password. The validation must work in all browsers.

Where should you put the validation control?

A. in both the client-side code and the server-side code

B. in the client-side code only

C. in the Web.config file
D. in the server-side code only

Answer: A

Question: 115

Which service can host an ASP.NET application?

A. Internet Information Services
B. Cluster Services
C. Remote Desktop Services
D. Web Services

Answer: B

Question: 116

This question requires that you evaluate the underlined text to determine if it is correct.
A table whose attributes depend only on the primary key must be at least second normal form.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. first
C. third
D. fourth

Answer: A

Question: 117

You have a table named ITEMS with the following fields:
ID (integer, primary key. auto generated)
Description (text)
Completed (Boolean)
You need to insert the following data in the table:
"Cheese", False
Which statement should you use?

A. INSERT INTO ITEMS (ID, Description, Completed) VALUES (1, 'Cheese', 0)
B. INSERT INTO ITEMS (Description, Completed) VALUES ('Cheese', 1)
C. INSERT INTO ITEMS (10, Description, Completed) VALUES (NEWID(), 'Cheese', 6)
D. INSERT INTO ITEMS (Description, Completed) VALUES ('Cheese', 6)

Answer: A

Question: 118

Which three are valid SQL keywords? (Choose three.)

A. GET
B. WHAT
C. FROM
D. SELECT
E. WHERE

Answer: ACE

Question: 119

This question requires that you evaluate the underlined text to determine if it is correct.
The bubble sort algorithm steps through the list to be sorted, comparing adjacent items and swapping them if they are in the wrong order
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. merge
C. library
D. insertion

Answer: A

Question: 120

Which two types of information should you include in an effective test case? (Choose two.)

A. the expected result from testing the case
B. multiple actions combined as a single step to test the case
C. any pre-conditions necessary to test the case
D. the stakeholders who originated the test case

Answer: AB

Question: 121

You are developing a webpage that enables students to manage races.
The webpage will display two lists: past races and upcoming races. The page also contains a sidebar with contact information and a panel with social media settings that can be edited. Race results can be shared on social media.
How many components will be on the webpage?

A. 2
B. 3
C. 4
D. 5

Answer: C

Question: 122

This question requires that you evaluate the underlined text to determine if it is correct.
Converting a value type to a reference type in an object is called boxing.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. unboxing
C. interfacing
D. mapping

Answer: A

Question: 123

The Dog class and the Cat class inherit from the Animal class. The Animal class includes a breathe() method and a speak() method. If the speak() method is called from an object of type Dog, the result is a bark. If the speak() method is called from an object of type Cat, the result is a meow.
Which term is used to describe this object-oriented concept?

A. multiple inheritance
B. polymorphism
C. data hiding
D. encapsulation

Answer: D

Question: 124

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
The "is a" relationship between classes refers to composition.	○	○
The "has a" relationship between classes refers to inheritance.	○	○
Both composition and inheritance allow you to create sub-objects.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
The "is a" relationship between classes refers to composition.	○	◉
The "has a" relationship between classes refers to inheritance.	○	◉
Both composition and inheritance allow you to create sub-objects.	◉	○

Question: 125

This question requires that you evaluate the underlined text to determine if it is correct.
A data dictionary that describes the structure of a database is called metadata.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. normalization
C. a database management system (DBMS)
D. metacontent

Answer: A

Question: 126

You are reviewing a design for a database. A portion of this design is shown in the exhibit. Note that you may choose to view either the Crow's Foot Notation or Chen Notation version of the design. (To view the Crow's Foot Notation, click the Exhibit A button. To view the Chen Notation, click the Exhibit B button.)

Exhibit A

Exhibit B

Which term is used to describe the relationship between Customer and Order?

A. many-to-many
B. one-to-many
C. one-dimensional
D. one-to-one
E. multi-dimensional

Answer: D

Question: 127

This question requires that you evaluate the underlined text to determine if it is correct.
To improve performance, a SQL SELECT statement should use indexes.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. joins
C. grouping
D. ordering

Answer: A

Question: 128

You are building a web application that enables international exchange students to schedule phone calls with their prospective schools.
The application allows students to indicate a preferred date and time for phone calls. Students may indicate no preferred time by leaving the date and time field empty. The application must support multiple time zones.
Which data type should you use to record the student's preferred date and time?

A. `uLong?`
B. `DateTime`
C. `sByte`
D. `DateTimeOffset?`

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question: 129

Which three items are benefits of encapsulation? (Choose three.)

A. maintainability
B. flexibility
C. restricted access
D. inheritance
E. performance

Answer: ABC

Question: 130

This question requires that you evaluate the underlined text to determine if it is correct.
When a base class declares a method as virtual, the method is hidden from implementation bv a derived class.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. can be overridden with its own implementation by a derived class
C. must be overridden in any non-abstract class that directly inherits from that class
D. cannot be overridden with its own implementation by a derived class

Answer: B

Question: 131

This question requires that you evaluate the underlined text to determine if it is correct.
The process of transforming compiled C# code into an XML string for a web service is known as deserialization.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. serialization
C. decoding
D. encoding

Answer: B

Question: 132

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Statement	Yes	No
Within an XHTML document, the XHTML DOCTYPE declaration is mandatory.	○	○
Within an XHTML document, the XML namespace attribute in the html tag is mandatory.	○	○
Within an XHTML document, the html, head, title, and body tags are mandatory.	○	○

Answer:

Answer Area

Statement	Yes	No
Within an XHTML document, the XHTML DOCTYPE declaration is mandatory.	○	○
Within an XHTML document, the XML namespace attribute in the html tag is mandatory.	○	○
Within an XHTML document, the html, head, title, and body tags are mandatory.	○	○

Question: 133

You have a Microsoft ASP.NET web application.
You need to store a value that can be shared across users on the server.
Which type of state management should you use?

A. Session
B. ViewState
C. Application
D. Cookies

Answer: A

Question: 134

This question requires that you evaluate the underlined text to determine if it is correct.
The Response.Redirect method is used to transfer processing of the current page to a new page, and then return processing back to the calling page once processing of the new page has completed.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. Server.Transfer method
C. Server.Execute method
D. meta http-equiv="refresh" tag

Answer: C

Question: 135

You are creating an application for a priority help desk center. The most recent call must be handled first.
Which data structure should you use?

A. queue

B. hashtable
C. stack
D. binary tree

Answer: D

Question: 136

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Test Behavior	Yes	No
The primary goal of unit testing is to take the smallest piece of testable software in the application, isolate it from the remainder of the code, and determine whether it behaves exactly as expected.	○	○
In unit testing, each unit is tested separately before integrating the units into modules to test the interfaces between modules.	○	○
The driver that you use in unit testing simulates a calling unit and the stub simulates a called unit.	○	○

Answer:

Answer Area

Test Behavior	Yes	No
The primary goal of unit testing is to take the smallest piece of testable software in the application, isolate it from the remainder of the code, and determine whether it behaves exactly as expected.	○	○
In unit testing, each unit is tested separately before integrating the units into modules to test the interfaces between modules.	○	○
The driver that you use in unit testing simulates a calling unit and the stub simulates a called unit.	○	○

Question: 137

You plan to create an application for your company. The application will run automated routines and write the results

to a text-based log file. Little or no user interaction is required.
Security requirements on the host computers prevent you from running applications on startup, and users must be able to see the status easily on the screen. The host computers also have limited memory and monitors that display only two colors. These computers will have no network connectivity.
Which type of application should you use for this environment?

A. Directx
B. Windows Service
C. console-based
D. Windows Store app

Answer: A

Question: 138

In the life cycle of an ASP. NET Web page, which phase follows the SaveStateComplete phase?

A. Load
B. Render
C. PostInit
D. PostBack

Answer: B

Explanation:
The SaveStateComplete event is raised after the view state and control state of the page and controls on the page are saved to the persistence medium.
This is the last event raised before the page is rendered to the requesting browser.

Question: 139

Which language allows you to dynamically create content on the client side?

A. Cascading Style Sheets (CSS)
B. JavaScript (JS)
C. Extensible Markup Language (XML)
D. Hypertext Markup Language (HTML)

Answer: B

Explanation:
JavaScript (JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed.

Question: 140

You create an application that uses Simple Object Access Protocol (SOAP).
Which technology provides information about the application's functionality to other applications?

A. Web Service Description Language (WSDL)
B. Common Intermediate Language (CIL)
C. Extensible Application Markup Language (XAML)
D. Universal Description, Discovery, and Integration (UDDI)

Answer: A

Explanation:
WSDL is often used in combination with SOAP and an XML Schema to provide Web services over the Internet. A client program connecting to a Web service can read the WSDL file to determine what operations are available on the server. Any special datatypes used are embedded in the WSDL file in the form of XML Schema. The client can then use SOAP to actually call one of the operations listed in the WSDL file using for example XML over HTTP.

Question: 141

How should you configure an application to consume a Web service?

A. Add the Web service to the development computer.
B. Add a reference to the application in the Web service.
C. Add a reference to the Web service in the application.
D. Add the Web service code to the application.

Answer: C

Explanation:
Start by adding a Service Reference to the project. Right-click the ConsoleApplication1 project and choose “Add Service Reference”:

Question: 142

You are creating an ASP. NET Web application.
Which line of code should you use to require a control to process on the computer that hosts the application?

A. runat= "server"
B. redirect*="HostPage. htm"
C. AutoEventWireup="true"
D. defaultRedirect="ServerPage. htm"

Answer: A

Question: 143

What are two possible options for representing a Web application within Internet Information Services (IIS)? (Each correct answer presents a complete solution. Choose two.)

A. web site
B. virtual directory
C. application directory

D. application server
E. Web directory

Answer: A, B

Explanation:
* Create a Web Application
An application is a grouping of content at the root level of a Web site or a grouping of content in a separate folder under the Web site's root directory. When you add an application in IIS 7, you designate a directory as the application root, or starting point, for the application and then specify properties specific to that particular application, such as the application pool that the application will run in.
* You can make an Existing Virtual Directory a Web Application.

Question: 144

In this XHTML code sample, what will cause an error?

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
    <head>
        <title>The Title</title>
    </head>
    <body>
        <h1>This is a Heading.</h1>
        <p>This is a paragraph</p><br>
    </body>
</html>
```

A. The line break tag is incorrectly formatted.
B. The HTML tags do not read XHTML.
C. The body tag is missing a background attribute,
D. All tags are not in uppercase.

Answer: A

Explanation:
In XHTML, the <br> tag must be properly closed, like this: <br />.

Question: 145

Which language uses Data Definition Language (DDL) and Data Manipulation Language (DML)?

A. Java
B. C+ +
C. SQL
D. Pascal

Answer: C

Explanation:
SQL uses DDL and DML.

Question: 146

A table named Student has columns named ID, Name, and Age. An index has been created on the ID column. What advantage does this index provide?

A. It reorders the records alphabetically.
B. It reorders the records numerically.
C. It speeds up query execution.
D. It minimizes storage requirements.

Answer: C

Explanation:
Faster to access an index table.

Question: 147

A data warehouse database is designed to:

A. Require validation of incoming data during real-time business transactions.
B. Enable business decisions by collecting, consolidating, and organizing data.
C. Support real-time business operations.
D. Support a large number of concurrent users.

Answer: B

Question: 148

Which language was designed for the primary purpose of querying data, modifying data, and managing databases in a Relational Database Management System?

A. C + +
B. Java
C. SQL
D. Visual Basic

Answer: C

Explanation:
SQL is a special-purpose programming language designed for managing data held in a relational database management system (RDBMS).

Question: 149

In your student directory database, the Students table contains the following fields:
firstName
lastName
emailAddress
telephoneNumber
You need to retrieve the data from the firstName, lastName, and emailAddress fields for all students listed in the directory. The results must be in alphabetical order according to lastName and then firstName.

Which statement should you use?

A.
```
SELECT firstName, lastName, emailAddress
    FROM Students BY lastName, firstName
```

B.
```
SELECT firstName, lastName
    FROM Students
    ORDER BY lastName, firstName, emailAddress
```

C.
```
SELECT firstName, lastName, emailAddress
    FROM Students
    SORT BY lastName, firstName
```

D.
```
SELECT firstName, lastName, emailAddress
    FROM Students
    ORDER BY lastName, firstName
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Explanation:
to sort use: ORDER BY LastName, FirstName

Question: 150

You need to ensure the data integrity of a database by resolving insertion, update, and deletion anomalies. Which term is used to describe this process in relational database design?

A. Normalization
B. Integration
C. Isolation
D. Resolution

Answer: A

Explanation:
Database normalization is the process of organizing the fields and tables of a relational database to minimize redundancy. Normalization usually involves dividing large tables into smaller (and less redundant) tables and defining relationships between them. The objective is to isolate data so that additions, deletions, and modifications of a field can be made in just one table and then propagated through the rest of the database using the defined relationships.

Question: 151

You are creating an application for computers that run Windows XP or later. This application must run after the computer starts. The user must not be aware that the application is running.
The application performs tasks that require permissions that the logged-in user does not have.
Which type of application allows this behavior?

A. Windows Forms application
B. DOS batch file
C. Terminate-and-stay-resident (TSR) program
D. Windows Service application

Answer: D

Question: 152

An application presents the user with a graphical interface. The interface includes buttons that the user clicks to perform tasks. Each time the user clicks a button, a method is called that corresponds to that button.
Which term is used to describe this programming model?

A. Event driven
B. Structured
C. Service oriented
D. Functional

Answer: A

Question: 153

How does a console-based application differ from a Windows Forms application?

A. Windows Forms applications can access network resources.
B. Console-based applications do not display a graphical interface.
C. Console-based applications require the XNA Framework to run.
D. Windows Forms applications do not provide a method for user input.

Answer: B

Question: 154

Which type of Windows application presents a parent window that contains child windows?

A. Multiple-document interface (MDI)
B. Command-line interface (CLI)
C. Single-document interface (SDI)
D. Application programming interface (API)

Answer: A

Explanation:
A multiple document interface (MDI) is a graphical user interface in which multiple windows reside under a single

parent window. Such systems often allow child windows to embed other windows inside them as well, creating complex nested hierarchies. This contrasts with single document interfaces (SDI) where all windows are independent of each other.

Question: 155

The purpose of the Catch section in an exception handler is to:

A. Conclude the execution of the application.
B. Break out of the error handler.
C. Execute code only when an exception is thrown.
D. Execute code regardless of whether an exception is thrown.

Answer: C

Question: 156

You execute the following code.

```
For i = 0 to 10 Step 2
    Console.WriteLine("Hello")
Next
```

How many times will the word Hello be printed?

A. 5
B. 6
C. 10
D. 12

Answer: B

Question: 157

You execute the following code.

```
Dim beakerFull As Boolean = True
Dim flameOn As Boolean = False
Dim iResult As Integer = 0

If beakerFull = True Then
    If flameOn = True Then
        iResult = 1
    Else
        iResult = 2
    End If
Else
    iResult = 3
End If
```

What will the variable result be?

A. 0
B. 1

C. 2
D. 3

Answer: C

Question: 158

You need to evaluate the following expression:
(A>B) AND (C<D)
What is the value of this expression if A=3, B=4, C=4, and D=5?

A. 0
B. 4
C. 5
D. False
E. Null
F. True

Answer: D

Explanation:
A>B is false.

Question: 159

You are creating a variable for an application.
You need to store data that has the following characteristics in this variable:
Consists of numbers and characters
Includes numbers that have decimal points
Which data type should you use?

A. Decimal
B. Char
C. String
D. Single

Answer: C

Explanation:
Need a string to store characters.

Question: 160

What are two methods that can be used to evaluate the condition of a loop at the start of each iteration? (Each correct answer presents a complete solution. Choose two.)

A. For
B. Do. . . While
C. If

D. While

Answer: A, D

Explanation:
For and While constructs check at the start of each iteration.

Question: 161

The purpose of a constructor in a class is to:

A. Initialize an object of that class.
B. Inherit from the base class.
C. Release the resources that the class holds.
D. Create a value type.

Answer: A

Explanation:
Each value type has an implicit default constructor that initializes the default value of that type.

Question: 162

You are designing a class for an application. You need to restrict the availability of the member variable accessCount to the base class and to any classes that are derived from the base class.
Which access modifier should you use?

A. Protected
B. Private
C. Public
D. Friend

Answer: B

Question: 163

You create an object of type ANumber. The class is defined as follows.

```
Public Class ANumber
    Private _number As Integer = 7
    Public Sub New ()
    End Sub
    Public Sub New (ByVal number As Integer)
        _number = number
    End Sub
End Class
```

The code is executed as follows.
Dim mynumber As ANumber = new ANumber(3);
What is the value of _number after the code is executed?

A. Null
B. 0
C. 3
D. 7

Answer: C

Question: 164

You need to allow a consumer of a class to modify a private data member.
What should you do?

A. Provide a public function that assigns a value to the data member.
B. Create global variables in the class.
C. Assign a value directly to the data member.
D. Provide a private function that assigns a value to the data member.

Answer: A

Explanation:
In this example (see below), the Employee class contains two private data members, name and salary. As private members, they cannot be accessed except by member methods. Public methods named GetName and Salary are added to allow controlled access to the private members. The name member is accessed by way of a public method, and the salary member is accessed by way of a public read-only property.
Note: The private keyword is a member access modifier. Private access is the least permissive access level. Private members are accessible only within the body of the class or the struct in which they are declared
Example:

```
class Employee2
{
 private string name = "FirstName, LastName";
 private double salary = 100.0;
 public string GetName()
 {
  return name;
 }
 public double Salary
 {
  get { return salary; }
 }
}
```

Question: 165

Which term is used to describe a class that inherits functionality from an existing class?

A. Superclass
B. Base class
C. Inherited class
D. Derived class

Answer: D

Explanation:
Classes (but not structs) support the concept of inheritance. A class that derives from another class (the base class) automatically contains all the public, protected, and internal members of the base class except its constructors and destructors.

Question: 166

A class named Manager is derived from a parent class named Employee. The Manager class includes characteristics that are unique to managers.
Which term is used to describe this object-oriented concept?

A. inheritance
B. data modeling
C. data hiding
D. encapsulation

Answer: A

Explanation:
Classes (but not structs) support the concept of inheritance. A class that derives from another class (the base class) automatically contains all the public, protected, and internal members of the base class except its constructors and destructors.
Incorrect:
not D: Encapsulation is sometimes referred to as the first pillar or principle of object-oriented programming. According to the principle of encapsulation, a class or struct can specify how accessible each of its members is to code outside of the class or struct. Methods and variables that are not intended to be used from outside of the class or assembly can be hidden to limit the potential for coding errors or malicious exploits.

Question: 167

Two classes named Circle and Square inherit from the Shape class. Circle and Square both inherit Area from the Shape class, but each computes Area differently.
Which term is used to describe this object-oriented concept?

A. encapsulation
B. superclassing
C. polymorphism
D. overloading

Answer: C

Explanation:
You can use polymorphism to in two basic steps:
Create a class hierarchy in which each specific shape class derives from a common base class.
Use a virtual method to invoke the appropriate method on any derived class through a single call to the base class method.

Question: 168

You are creating an application that presents users with a graphical interface in which they computers that do not have network connectivity.
Which type of application should you choose?

A. ClickOnce
B. Windows Service
C. Windows Forms
D. Console-based

Answer: C

Explanation:
Use Windows Forms when a GUI is needed.

Question: 169

The elements of an array must be accessed by:

A. Calling the item that was most recently inserted into the array.
B. Using a first-in, last-out (FILO) process.
C. Using an integer index.
D. Calling the last item in the memory array.

Answer: C

Question: 170

Simulating the final design of an application in order to ensure that the development is progressing as expected is referred to as:

A. Software testing
B. Prototyping
C. Flowcharting
D. Analyzing requirements

Answer: A

Question: 171

You have a stack that contains integer values. The values are pushed onto the stack in the following order: 2,4,6,8. The following sequence of operations is executed:
Pop
Push 3
Pop
Push 4
Push 6
Push 7

Pop
Pop
Pop
What is the value of the top element after these operations are executed?

A. 2
B. 3
C. 6
D. 7

Answer: B

Question: 172

You are creating an application that presents users with a graphical interface. Users will run this application from remote computers. Some of the remote computers do not have the . NET Framework installed. Users do not have permissions to install software.
Which type of application should you choose?

A. Console-based
B. ASP. NET
C. Windows Service
D. Windows Forms

Answer: B

Question: 173

You are writing a Web application that processes room reservation requests. You need to verify that the room that a guest has selected is not already reserved by another guest.
Which type of programming should you use to determine whether the room is still available when the request is made?

A. client-side
B. batch processing
C. server-side
D. multithreaded

Answer: C

Explanation:
For room availability we need to check a database located on a server.

Question: 174

Which term is used to describe small units of text that are stored on a client computer and retrieved to maintain state?

A. trace

B. cross-page post
C. cookie
D. server transfer

Answer: C

Explanation:
HTTP is a stateless protocol. This means that user data is not persisted from one Web page to the next in a Web site. One way to maintain state is through the use of cookies. Cookies store a set of user specific information, such as a reference identifier for a database record that holds customer information.

Question: 175

Which function does Simple Object Access Protocol (SOAP) provide when using Web services?

A. communications protocol
B. model for describing Web services
C. directory of registered Web services
D. security model

Answer: A

Explanation:
SOAP, originally defined as Simple Object Access Protocol, is a protocol specification for exchanging structured information in the implementation of web services in computer networks. It relies on XML Information Set for its message format, and usually relies on other application layer protocols, most notably Hypertext Transfer Protocol (HTTP) or Simple Mail Transfer Protocol (SMTP), for message negotiation and transmission.

Question: 176

Where must Internet Information Services (IIS) be installed in order to run a deployed ASP. NET application?

A. on the computer that you plan to deploy from
B. on the client computers
C. on the computer that hosts the application
D. on the Application Layer Gateway Service

Answer: C

Explanation:
IIS is run on the web server. The web server is hosting the application.

Question: 177

You are creating a Web application. The application will be consumed by client computers that run a variety of Web browsers.
Which term is used to describe the process of making the application available for client computers to access?

A. Deploying

B. Hosting
C. Virtualization
D. Casting

Answer: B

Explanation:
You host web applications.

Question: 178

You need to group all the style settings into a separate file that can be applied to all the pages in a Web application.
What should you do?

A. Use a Cascading Style Sheet (CSS).
B. Use an Extensible Markup Language (XML) schema.
C. Use inline styles.
D. Use a WebKit.

Answer: A

Explanation:
Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language.
CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts.

Question: 179

You have a server that limits the number of data connections.
What should you use to optimize connectivity when the number of users exceeds the number of available connections?

A. Named pipes
B. Normalization
C. Connection timeouts
D. Connection pooling

Answer: D

Explanation:
In software engineering, a connection pool is a cache of database connections maintained so that

Question: 180

You are reviewing a design for a database. A portion of this design is shown in the exhibits. Note that you may choose either the Crow's Foot Notation or Chen Notation version of the design. (To view the Crow's Foot Notation, click the Exhibit A button. To view the Chen Notation, click the Exhibit B button.)

Exhibit A

Exhibit B

Which term is used to describe the Customer component?

A. Field
B. Entity
C. Property
D. Attribute

Answer: B

Explanation:
Customer is a table (entity).

Question: 181

Your application must pull data from a database that resides on a separate server.
Which action must you perform before your application can retrieve the data?

A. Establish a connection to the database by using the appropriate data provider.
B. Create a routine that bypasses firewalls by using Windows Management Instrumentation (WMI).
C. Install the database on each client computer.
D. Configure the network routers to allow database connections.

Answer: A

Question: 182

Your database administrators will not allow you to write SQL code in your application.
How should you retrieve data in your application?

A. Reference an index in the database.
B. Call a stored procedure.
C. Query a database view.
D. Script a SELECT statement to a file.

Answer: B

Explanation:
The SQL will only be inside the stored procedure.

Question: 183

You need to create a property in a class. Consumers of the class must be able to read the values of the property. Consumers of the class must be prevented from writing values to the property.
Which property procedure should you include?

A. Set
B. Get
C. Let
D. Return

Answer: B

Question: 184

Which of the following must exist to inherit attributes from a particular class?

A. Public properties
B. A has-a relationship
C. Static members
D. An is-a relationship

Answer: D

Explanation:
Visual Basic has been a pioneer of binary code reuse — controls being the classic example. You reuse the code in a control by placing an instance of the control on your form. This is known as a containment relationship or a has-arelationship; that is, the form contains or has a CommandButton.

Question: 185

How many parameters can a default constructor have?

A. 0
B. 1
C. 2
D. 3 or more

Answer: A

Explanation:
If a class contains no instance constructor declarations, a default instance constructor is automatically provided. That default constructor simply invokes the parameterless constructor of the direct base class.

Question: 186

You have a class named Truck that inherits from a base class named Vehicle. The Vehicle class includes a protected method named brake ().
How should you call the Truck Class implementation of the brake () method?

A. Mybase.brake ()
B. Truck.brakef)
C. Vehicle.brake()
D. Me.brake ()

Answer: A

Explanation:
The MyBase keyword behaves like an object variable referring to the base class of the current instance of a class.MyBase is commonly used to access base class members that are overridden or shadowed in a derived class.

Question: 187

Which type of function can a derived class override?

A. A Protected Overridable member function
B. A Shared function
C. A Private Overridable function
D. A non-overridable public member function

Answer: A

Explanation:
The Overridable modifier allows a property or method in a class to be overridden in a derived class.
You cannot specify Overridable or NotOverridable for a Private method.

Question: 188

Class C and Class D inherit from Class B. Class B inherits from Class
A. The classes have the methods shown in the following table.

Class	Method
A	m1
B	m2
C	m3
D	m4

All methods have a protected scope.
Which methods does Class C have access to?
A. only m1, m3
B. only m2, m3
C. m1, m3, m4
D. m1, m2, m3
E. m2, m3, m4
F. only m3, m4

Answer: D

Question: 189

You execute the following code.

```
For i = 0 to 100
    If I Mod 2 <> 0 Then
        Console.WriteLine("Hello")
    End If
Next
```

How many times will the word Hello be printed?

A. 49
B. 50
C. 51
D. 100

Answer: B

Explanation:
The mod operator computes the remainder after dividing its first operand by its second. All numeric types have predefined remainder operators.
In this case the reminder will be nonzero 50 times (for i with values 1, 3, 5,..,99).

Question: 190

The purpose of the Finally section in an exception handler is to:

A. Execute code only when an exception is thrown.
B. Break out of the error handler.
C. Execute code regardless of whether an exception is thrown.
D. Conclude the execution of the application.

Answer: C

Explanation:
By using a finally block, you can clean up any resources that are allocated in a try block, and you can run code even if an exception occurs in the try block. Typically, the statements of a finally block run when control leaves a try statement. The transfer of control can occur as a result of normal execution, of execution of a break, continue, goto, or return statement, or of propagation of an exception out of the try statement.

Question: 191

You are creating the necessary variables for an application. The data you will store in these variables has the following characteristics:
Consists of numbers
Includes numbers that have decimal points
Requires more than seven digits of precision
You need to use a data type that will minimize the amount of memory that is used.
Which data type should you use?

A. Decimal
B. Single

C. Byte
D. Double

Answer: D

Explanation:
The double keyword signifies a simple type that stores 64-bit floating-point values.
Precision: 15-16 digits

Question: 192

You are creating a routine that will perform calculations by using a repetition structure. You need to ensure that the entire loop executes at least once.
Which looping structure should you use?

A. For-Each
B. For
C. While
D. Do-While

Answer: D

Explanation:
In a Do..While loop the test is at the end of the structure, so it will be executed at least once.

Question: 193

You execute the following code.

```
Dim beakerFull As Boolean = True
Dim flameOn As Boolean = False
Dim iResult As Integer

Select Case beakerFull
    Case True
        Select Case flameOn
            Case True
            iResult = 1
            Case False
            iResult = 2
        End Select
    Case False
        Select Case flameOn
            Case False
            iResult = 3
            Case True
            iResult = 4
        End Select
End Select
```

What will the variable result be?

A. 1
B. 2
C. 3
D. 4

Answer: B

Question: 194

You are creating an application that accepts input and displays a response to the user. You cannot create a graphical interface for this application.
Which type of application should you create?

A. Web-based
B. Windows Service
C. Windows Forms
D. console-based

Answer: A

Question: 195

You are creating an application that presents the user with a Windows Form. You need to configure the application to display a message box to confirm that the user wants to close the form.
Which event should you handle?

A. Deactivate
B. FormClosed
C. Leave
D. FormClosing

Answer: D

Explanation:
The Closing event occurs as the form is being closed.

Question: 196

Which type of application has the following characteristics when it is installed?
Runs continuously in the background by default when the startup type is set to automatic
Presents no user interface

A. Console-based
B. Windows Forms
C. Windows Service
D. Batch file

Answer: C

Explanation:
A Windows service runs in the background and has no interface.

Question: 197

You are creating an application for a help desk center. Calls must be handled in the same order in which they were received.
Which data structure should you use?

A. Queue
B. Hashtable
C. Stack
D. Binary tree

Answer: A

Question: 198

In which order do the typical phases of the Software Development Life Cycle occur?

A. Requirements gathering, design, development, and testing
B. Development, design, requirements gathering, and testing
C. Design, requirements gathering, development, and testing
D. Design, development, requirements gathering, and testing

Answer: A

Question: 199

You need to create an application that processes data on a last-in, first-out (LIFO) basis.
Which data structure should you use?

A. Stack
B. Array
C. Tree
D. Queue

Answer: A

Explanation:
A stack implements LIFO.

Question: 200

In the application life cycle, the revision of an application after it has been deployed is referred to as:

A. Monitoring
B. Maintenance

C. Unit testing
D. Integration

Answer: B

Question: 201

This question requires that you evaluate the underlined text to determine if it is correct.
The duplication of code so that modifications can happen in parallel is known as separating.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. branching
C. merging
D. splitting

Answer: B

Question: 202

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
A linked list has a maximum of 100 nodes.	○	○
You can add new nodes anywhere in a linked list.	○	○
A linked list can be sorted.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
A linked list has a maximum of 100 nodes.	○	●
You can add new nodes anywhere in a linked list.	●	○
A linked list can be sorted.	●	○

Question: 203

DRAG DROP

You are developing an application that displays a list of race results. The race results are stored in the following class:

```
Public Class RaceSpeedRecord
   Public Faster As RaceSpeedRecord
   Public Slower As RaceSpeedRecord
   Public Race As String
   Public Time As Double
End Class
```

The code that manages the list is as follows:

```
Public Class Results
  Public CurrentOlympicRecord As RaceSpeedRecord

  Public Sub New()
    CurrentOlympicRecord = New RaceSpeedRecord()
  End Sub

  Public Sub AddRace(raceName As String, time As Double)

  End Sub
End Class
```

You need to implement the AddRace method.

Match the code segment to its location. (To answer, drag the appropriate code segment from the column on the left to its location on the right. Each code segment may be used once, more than once, or not at all. Each correct match is worth one point.)

Code Segments

- current.Faster
- current.Slower
- current.Time
- current.Race

Answer Area

```
Public Sub AddRace(raceName As String, time As Double)

  Dim current = CurrentOlympicRecord

  While [Code Segment] > time

    current = [Code Segment]

  End While
  Dim rsr = New RaceSpeedRecord
  rsr.Race = raceName
  rsr.Time = time

  rsr.Faster = [Code Segment]

  rsr.Slower = [Code Segment]

  current.Faster.Slower = rsr
  current.Slower.Faster = rsr
End Sub
```

Answer:

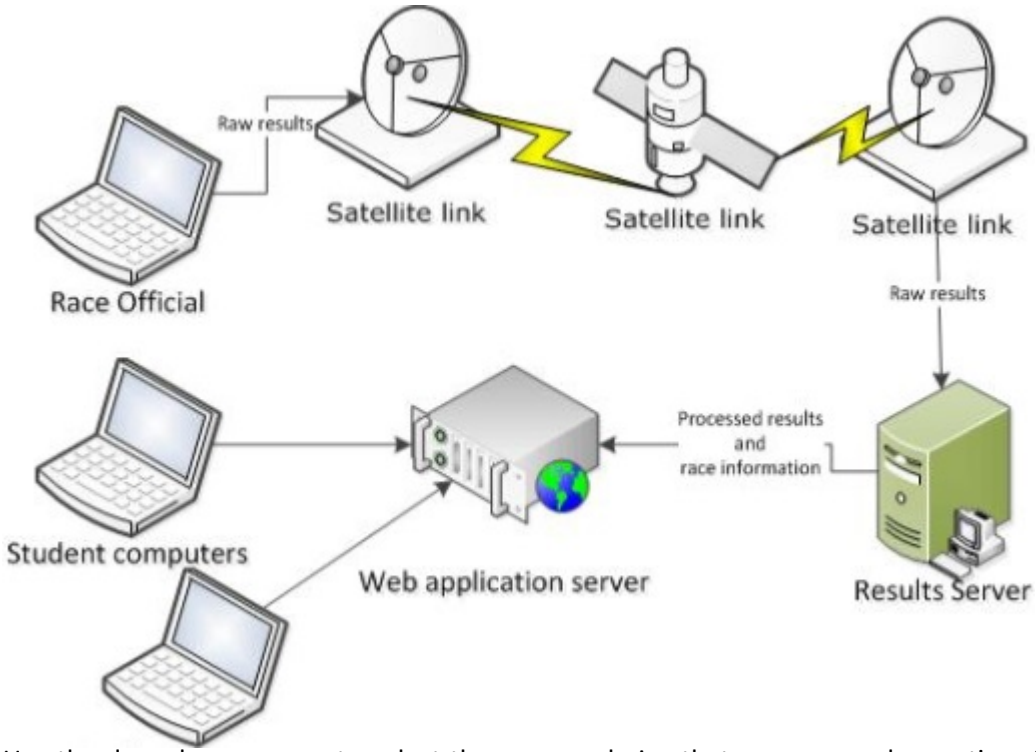
Answer Area

```
Public Sub AddRace(raceName As String, time As Double)

  Dim current = CurrentOlympicRecord

  While    current.Time    > time

    current =    current.Slower

  End While
  Dim rsr = New RaceSpeedRecord
  rsr.Race = raceName
  rsr.Time = time

  rsr.Faster =    current.Faster

  rsr.Slower =    current.Slower

  current.Faster.Slower = rsr
  current.Slower.Faster = rsr
End Sub
```

Question: 204

HOTSPOT

You are reviewing the architecture for a system that allows race officials to enter the results of 5K race results. The results are then made available to students using a web application. The architecture is shown below:



Use the drop-down menus to select the answer choice that answers each question. Each correct selection is worth one point.

Answer Area

To minimize the time between when a race official records the results and when the results are available on the web, which part of the system is critical?

To increase the number of students that can access race results, what element should be added to the system?

Answer Area

To minimize the time between when a race official records the results and when the results are available on the web, which part of the system is critical?

satellite link
student computer
race official computer
web application server

To increase the number of students that can access race results, what element should be added to the system?

satellite link
race officials
results servers
web application servers

Answer:

Answer Area

To minimize the time between when a race official records the results and when the results are available on the web, which part of the system is critical?

satellite link
student computer
race official computer
web application server

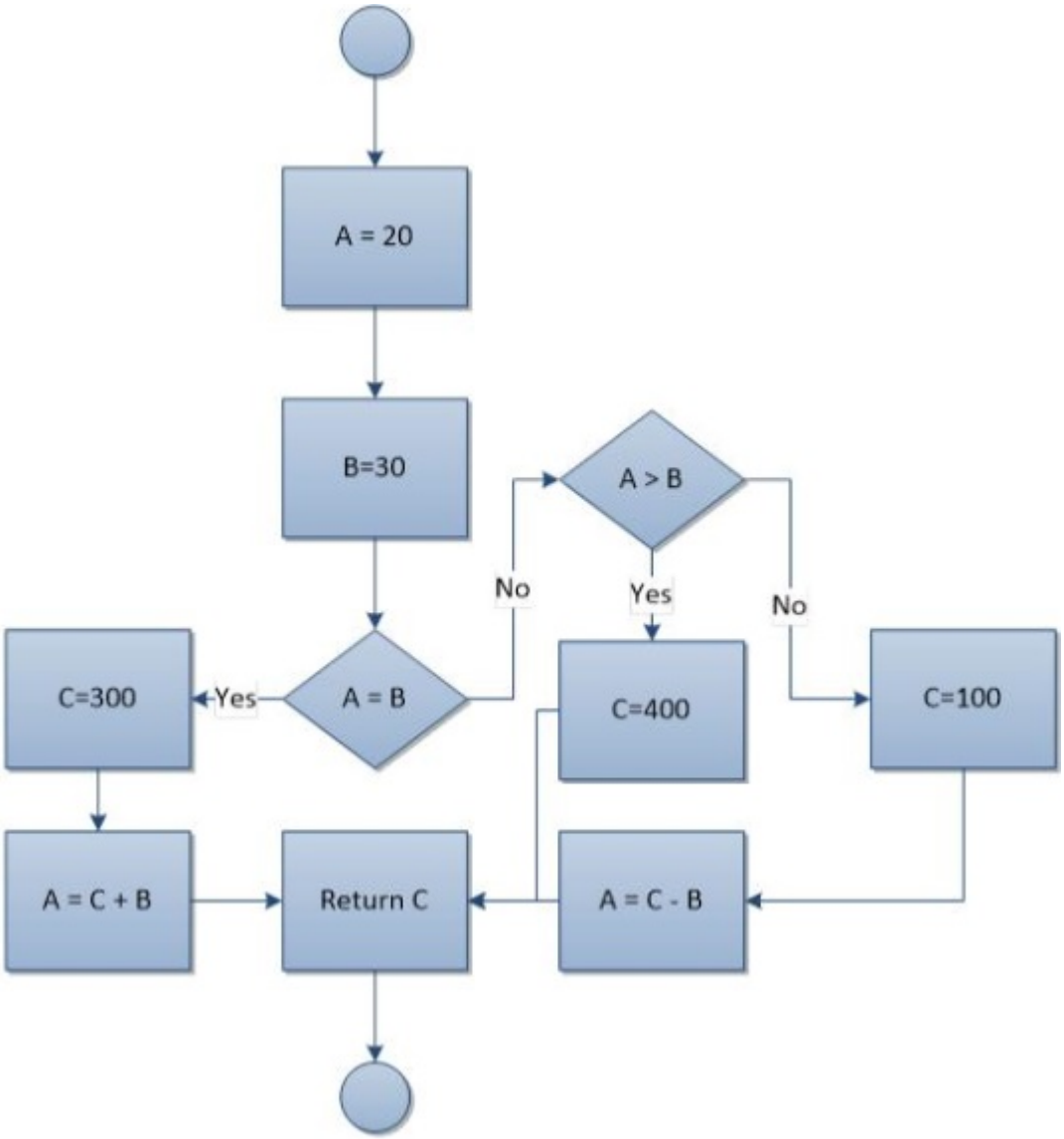
To increase the number of students that can access race results, what element should be added to the system?

satellite link
race officials
results servers
web application servers

Question: 205

HOTSPOT

You have the following flowchart:



Use the drop-down menus to select the answer choice that completes each statement Each correct selection is worth one point.

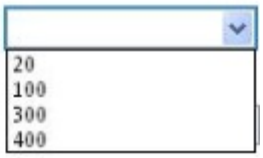
Answer Area

The value that is returned is **[answer choice]**.

The value of A is **[answer choice]**.

Answer Area

The value that is returned is **[answer choice]**.

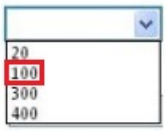


The value of A is **[answer choice]**.

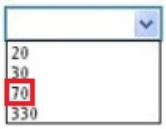
Answer:

Answer Area

The value that is returned is **[answer choice]**.



The value of A is **[answer choice]**.



Question: 206

HOTSPOT

You are reviewing the following code that saves uploaded images.

```
Public Structure ImageInfo
  Public Data As Byte()
  Public Length As Integer
  Public Id As Guid
End Structure

Public Sub Post()
  Dim uploaded = PostedImage()
  Dim newImage = New ImageInfo()
  newImage.Data = uploaded
  newImage.Length = uploaded.Length
  newImage.Id = Guid.NewGuid()
End Sub
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
The bytes that comprise the image are stored on the stack.	○	○
The length of the image data is stored on the heap.	○	○
The Id of the image is stored on the stack.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
The bytes that comprise the image are stored on the stack	○	○
The length of the image data is stored on the heap.	○	○
The Id of the image is stored on the stack.	○	○

Question: 207

The following functions are defined:

```
Public Shared Function Printer(j As Integer) As Integer
  Dim i As Integer = j
  While i > 0
    Console.Write(i)
    i = Printer(i - 1)
  End While
  Return j
End Function
```

What does the console display after the following line?
Printer(2)

A. 210
B. 211
C. 2101
D. 2121

Answer: B

Question: 208

The throw keyword is used to perform which two actions? (Choose two.)

A. stop processing of the code
B. move error handling to a separate thread
C. raise exceptions
D. re-throw exceptions as a different type

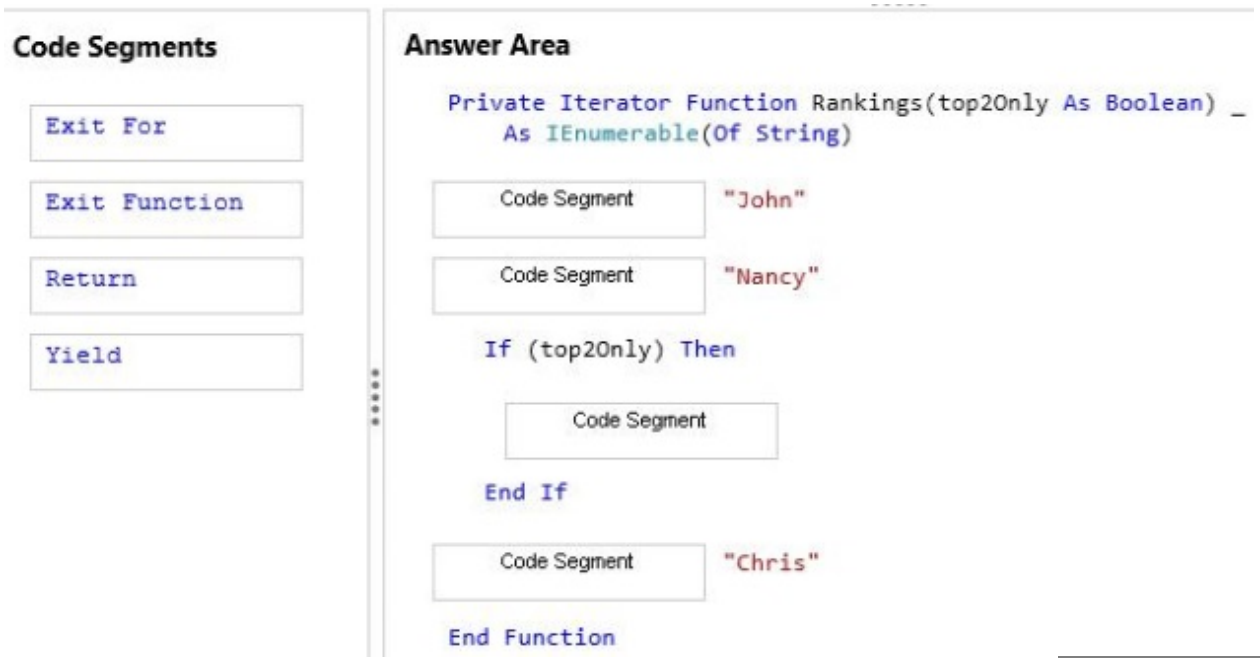
Answer: AB

Question: 209

DRAG DROP
You are developing an application to display track and field race results.
The application must display the race results twice. The first time it must display only the winner and runner-up. The second time it must display all participants. The code used to display results is shown below.

```
Public Sub Display()
  For Each ranking In Rankings(True)
    DisplayName(ranking)
  Next

  For Each ranking In Rankings(False)
    Displayname(ranking)
  Next
End Sub
```

You need to implement the RankingsO function.
Complete the function to meet the requirements. (To answer, drag the appropriate code segment from the column on the left to its location on the right. Each code segment may be used once, more than once, or not at all. Each correct match is worth one point.)



Answer:

```
Private Iterator Function Rankings(top2Only As Boolean) _
    As IEnumerable(Of String)

    Yield "John"
    Yield "Nancy"
    If (top2Only) Then
        Return
    End If
    Yield "Chris"
End Function
```

Question: 210

You need to debug a Windows Service application by using breakpoints.
What should you do?

A. Write all events to an event log.
B. Set the Windows Service status to Paused.
C. Implement the Console.WriteLine method throughout the Windows Service.
D. use the Attach to Process menu in Microsoft Visual Studio.

Answer: A

Question: 211

What does the Console.Error property do within a console-based application?

A. sets the standard error output stream
B. gets the standard error input stream
C. sets the standard error input stream
D. gets the standard error output stream

Answer: D

Question: 212

This question requires that you evaluate the underlined text to determine if it is correct.
The default entry point for a console application is the Class method.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. Main
C. Program
D. Object

Answer: B

Question: 213

How does a console-based application differ from a Windows Store app?

A. Windows Store apps do not provide a method for user input
B. Console-based applications do not display a graphical interface.
C. Windows Store apps can access network resources.
D. Console-based applications require the XNA Framework to run.

Answer: B

Question: 214

HOTSPOT
You are creating a Windows Store application that uses the following gesture:

Use the drop-down menus to select the answer choice that completes each statement. Each correct selection is worth one point.

Answer Area

The gesture shown in the graphic is called **[answer choice]**. [ ]

The surface displayed after the gesture has been completed is the **[answer choice]**. [ ]

Answer Area

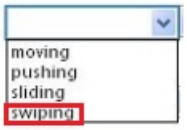
The gesture shown in the graphic is called **[answer choice]**. [ ]
- moving
- pushing
- sliding
- swiping

The surface displayed after the gesture has been completed is the **[answer choice]**. [ ]
- app bar
- canvas
- charms
- context menu

Answer:

Answer Area

The gesture shown in the graphic is called **[answer choice]**.



The surface displayed after the gesture has been completed is the **[answer choice]**.

Question: 215

This question requires that you evaluate the underlined text to determine if it is correct.
Convening an object to a more general type is called upcasting.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. downcasting
C. interfacing
D. flexing

Answer: A

Question: 216

You are developing an application that tracks tennis matches. A match is represented by the following class:

```
Public Class Match
  Public Property Location As String
  Public Property MatchDate As Date?

  Public Sub New()
    Location = "unknown"
  End Sub

End Class
```

A match is created by using the following code:

```
Dim match = New Match With
 {.Location = "north region",
 .MatchDate = New DateTime(2013, 4, 14)}
```

How many times is the Location property on the newly created Match class assigned?

A. 0
B. 1
C. 2
D. 3

Answer: C

Question: 217

DRAG DROP

You are extending an application that stores and displays the results of various types of foot races. The application contains the following definitions:

```
Public Interface IDisplayResult
  Sub Display()
End Interface

Public Class Race
  Public Seconds As Integer

  Public Overridable Sub Display()
    Console.WriteLine(Seconds)
  End Sub
End Class
```

The following code is used to display the result for a race:

```
Dim r1 = New FootRace()
Dim r2 = TryCast(r1, IDisplayResult)
r1.Seconds = 99

r1.Display()
r2.Display()
r1.DisplayRaw()
```

The contents of the console must be as follows:

99 seconds

1.65 minutes

99

You need to implement the FootRace class.

Match the method declaration to the method body. (To answer, drag the appropriate declaration from the column on the left to its body on the right. Each declaration may be used once, more than once, or not at all. Each correct match is worth one point.)

Code Segments

```
Public Overrides Sub Display()
```

```
Public Sub DisplayRaw()
```

```
Public Sub Display() Implements IDisplayResult.Display
```

```
Private Sub Display()
```

Answer Area

```
Public Class FootRace
  Inherits Race
  Implements IDisplayResult

    Code Segment

    Console.WriteLine(Seconds & "seconds")
  End Sub

    Code Segment

    MyBase.Display()
  End Sub

    Code Segment

    Console.WriteLine(Seconds / 60 & " minutes")
  End Sub
End Class
```

Answer:

Answer Area

```
Public Class FootRace
  Inherits Race
  Implements IDisplayResult

Public Overrides Sub Display()
    Console.WriteLine(Seconds & "seconds")
  End Sub

Public Sub DisplayRaw()
    MyBase.Display()
  End Sub

Public Sub Display() Implements IDisplayResult.Display
    Console.WriteLine(Seconds / 60 & " minutes")
  End Sub
End Class
```

Question: 218

You have a class named Glass that inherits from a base class named Window. The Window class includes a protected method named break().

How should you call the Glass class implementation of the breakO method?

A. Glass.break()
B. Window.break()
C. Me.break()
D. MyBase.break()

Answer: B

Question: 219

HOTSPOT
You have a base class named Tree with a friend property named color and a protected property named NumberOfLeaves. In the same project, you also have a class named Person.
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
Methods in the Person class can access the color property.	○	○
Methods in the Person class can access the NumberOfLeaves property.	○	○
Methods in the Tree class can access all private properties in Person.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
Methods in the Person class can access the color property.	◉	○
Methods in the Person class can access the NumberOfLeaves property.	○	◉
Methods in the Tree class can access all private properties in Person.	○	◉

Question: 220

HOTSPOT
You are developing a web application.
You need to create the following graphic by using Cascading Style Sheets (CSS):

Use the drop-down menus to select the answer choice that completes each statement. Each correct selection is worth one point.

Answer Area

For the CSS Style background-image, you should use the value **[answer choice]**

For the CSS Style border-radius, you should use the value **[answer choice]**

Answer Area

For the CSS Style background-image, you should use the value **[answer choice]**

- linear-gradient(to top, green, black);
- linear-gradient(to bottom, green, black);
- radial-gradient(green, black);
- repeating-linear-gradient(green, black);

For the CSS Style border-radius, you should use the value **[answer choice]**

- 10px;
- 10px, 10px, 10px;
- inherit;
- initial;

Answer:

Answer Area

For the CSS Style background-image, you should use the value **[answer choice]**

- linear-gradient(to top, green, black);
- linear-gradient(to bottom, green, black);
- radial-gradient(green, black);
- repeating-linear-gradient(green, black);

For the CSS Style border-radius, you should use the value **[answer choice]**

- 10px;
- 10px, 10px, 10px;
- inherit;
- initial;

Question: 221

You are writing a Web application that processes room reservation requests. You need to verify that the room that a guest has selected is not already reserved by another guest.

Which type of programming should you use to determine whether the room is still available when the request is made?

A. functional
B. in-browser
C. dynamic
D. server-side

Answer: D

Question: 222

What is displayed when you attempt to access a Web service by using a Web browser?

A. a visual depiction of your preliminary connection to the Web service
B. a listing of methods that are available in the Web service
C. an error page explaining that you have accessed the Web service incorrectly
D. a directory listing of the Web services application structure

Answer: A

Question: 223

This question requires that you evaluate the underlined text to determine if it is correct.
When creating a site to utilize message queuing, the IP address must be configured to MSMQ.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. protocol
C. host header
D. port

Answer: B

Question: 224

You are migrating several HTML pages to your website. Many of these pages contain HTML and <font> tags.
Which XHTML document type declaration should you use?

A.
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

B.
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
```

C.
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
```

D.
```
<!DOCTYPE html>
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question: 225

Which three phrases are advantages of connection pooling? (Choose three.)

A. reduces load on the server

B. improved performance
C. reduces time to create a connection
D. requires no configuration
E. improved scalability

Answer: ABC

Question: 226

You are creating a database for a student directory. The Students table contains the following fields:

```
firstName
lastName
emailAddress
telephoneNumber
```

Which statement will retrieve only the first name, last name, and telephone number for every student listed in the directory?

A.
```
SELECT firstName, lastName, telephoneNumber FROM Students
```

B.
```
WHERE Students SELECT firstName, lastName, telephoneNumber
```

C.
```
WHERE Students SELECT *
```

D.
```
SELECT firstName, lastName, telephoneNumber IN Students
```

E.
```
SELECT * FROM Students
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Question: 227

What are two advantages of normalization in a database? (Choose two.)

A. reduces schema limitations
B. minimizes impact of data corruption
C. decreases space used on disk
D. prevents data inconsistencies

Answer: AB

Question: 228

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is

worth one point.

Answer Area

Description of Behavior	Yes	No
An entity relationship diagram (ERD) is designed for an object-oriented database.	○	○
An entity relationship diagram (ERD) contains entities, relationships, and attributes.	○	○
Cardinality refers to how one table is linked to another table; as one-to-many.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
An entity relationship diagram (ERD) is designed for an object-oriented database.	○	○
An entity relationship diagram (ERD) contains entities, relationships, and attributes.	○	○
Cardinality refers to how one table is linked to another table; as one-to-many.	○	○

Question: 229

This question requires that you evaluate the underlined text to determine if it is correct.
The benefit of using a transaction when updating multiple tables is that the update cannot fail.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. succeeds or fails as a unit
C. finishes as quickly as possible
D. can be completed concurrently with other transactions

Answer: B

Question: 230

You are creating an application that presents the user with a Windows Form.
Which event is triggered each time the Windows Form receives focus?

A. Load
B. Enter
C. Activated
D. paint

Answer: A

Question: 231

What are the three basic states that a Windows service can be in? (Choose three.)

A. running
B. starting
C. halted
D. stopped
E. paused

Answer: BCE

Question: 232

You have a Windows Service running in the context of an account that acts as a non-privileged user on the local computer. The account presents anonymous credentials to any remote server.
What is the security context of the Windows Service?

A. Local System
B. NetworkService
C. user
D. LocalService

Answer: B

Question: 233

This question requires that you evaluate the underlined text to determine if it is correct.
Arguments are passed to console applications as a Hashtable object.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. String Array
C. StoredProcedureCollection
D. Dictionary

Answer: B

Question: 234

You have a SQL Server database named MyDB that uses SQL Server Authentication.
Which connection string should you use to connect to MyDB?

A. Data Source=MyDB; Integrated Security=SSPf; Initial Catalog=Sales
B. Data Source=MyDB; Trusted_Connection=True; MultipleActiveResultSets=True; Initial Catalog=Sales
C. Data Source=MyDB; Integrated Security=True; Initial Catalog=Sales
D. Data Source=MyDB; UserID=username; Password=P@sswOrd; Initial Catalog=Sales

Answer: A

Question: 235

You need to create a stored procedure that passes in a person's name and age.
Which statement should you use to create the stored procedure?

A.
```
UPDATE PROCEDURE StoreData
  @UserName nvarchar(255),
  @Age int
```

B.
```
CREATE PROCEDURE StoreData
  @UserName char,
  @Age double
```

C.
```
CREATE PROCEDURE StoreData
  @UserName nvarchar(255),
  @Age int
```

D.
```
CREATE PROCEDURE StoreData (@UserName, @Age)
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question: 236

You are developing a database that other programmers will query to display race results.
You need to provide the ability to query race results without allowing access to other information in the database.
What should you do?

A. Add an AFTER UPDATE trigger on the result table to reject updates.
B. Create an index on the result table.
C. Place the query into a stored procedure.
D. Disable implicit transactions.

Answer: A

Question: 237

This question requires that you evaluate the underlined text to determine if it is correct.
A piece of text that is 4096 bytes or smaller and is stored on and retrieved from the client computer to maintain state is known as a ViewState.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed

B. cookie
C. form post
D. QueryString

Answer: B

Question: 238

Which programming language is characterized as client-side, dynamic and weakly typed?

A. ASP.NET
B. C#
C. JavaScript
D. HTML

Answer: D

Question: 239

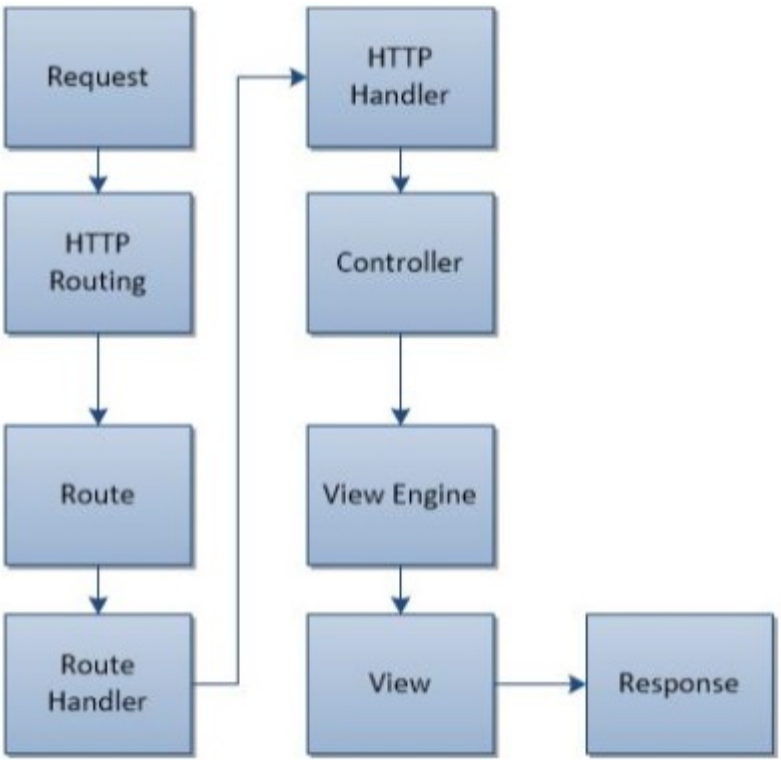
This question requires that you evaluate the underlined text to determine if it is correct.
Internet Information Services (IIS) must be installed on the client computers in order to run a deployed ASP.NET application.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. computer that hosts the application
C. computer that you plan to deploy from
D. Application Layer Gateway Service

Answer: B

Question: 240

HOTSPOT
The ASP.NET MVC page lifecycle is shown in the following graphic:



Use the drop-down menus to select the answer choice that completes each statement Each correct selection is worth one point.

Answer Area

The **[answer choice]** event determines which action method is needed and then calls that method.

The URL pattern is matched during the **[answer choice]** event.

Answer Area

The **[answer choice]** event determines which action method is needed and then calls that method.

- View
- Route
- Controller
- HTTP Handler

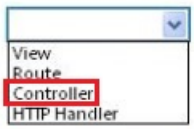
The URL pattern is matched during the **[answer choice]** event.

- View
- Route
- Controller
- HTTP Handler

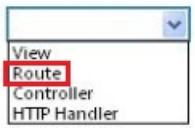
Answer:

Answer Area

The **[answer choice]** event determines which action method is needed and then calls that method.



The URL pattern is matched during the **[answer choice]** event.



Question: 241

When a web service is referenced from a client application in Microsoft Visual Studio, which two items are created? (Choose two.)

A. a stub
B. a proxy
C. a.disco file
D. a.wsdlfile

Answer: AD

Question: 242

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
A queue's items are stored in the order they were added.	○	○
A queue is a first in, first out (FIFO) data structure.	○	○
A queue has a limited number of items.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
A queue's items are stored in the order they were added.	○	○
A queue is a first in, first out (FIFO) data structure.	○	○
A queue has a limited number of items.	○	○

Question: 243

This question requires that you evaluate the underlined text to determine if it is correct.
Unit testing is the final set of tests that must be completed before a feature or product can be considered finished.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. User acceptance
C. System
D. Integration

Answer: B

Question: 244

This question requires that you evaluate the underlined text to determine if it is correct.
To minimize the amount of storage used on the hard drive by an application that generates many small files, you should make the partition as small as possible.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. file allocation table
C. block size
D. folder and file names

Answer: C

Question: 245

You run the following code:

```
Dim a As Integer = 10
Dim b As Integer = 20
Dim c As Integer = 30
Dim result As Integer = 0

If a <= b Or c > a Then
  result = 10
ElseIf a <= b Or c <= a Then
  result = 20
Else
  result = 30
End If
```

What is the value of result when the code has completed?

A. 0
B. 10
C. 20
D. 30

Answer: B

Question: 246

All objects in .NET inherit from which item?

A. a reference type
B. the System.Type class
C. a value type
D. the System.Object class

Answer: A

Question: 247

HOTSPOT
You are reviewing the following class that is used to manage the results of a 5K race:

```
Public Class Player
  Private _name As String
  Public Const Key As String = "player"

  Private _ranking As Integer
  Public Property Ranking() As Integer
    Get
      Return _ranking
    End Get
    Private Set(value As Integer)
      _ranking = value
    End Set
  End Property

  Public Function MatchName(searchTerm As String) As Boolean
    Return _name.ToLower() = searchTerm
  End Function

  Public Sub SetResult(rank As Integer, name As String)
    If (Not IsNothing(_name)) Then
      Return
    End If

    Ranking = rank
    _name = name
  End Sub
End Class
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
You can only set the player's ranking once.	○	○
If you call the MatchName method, the code will throw an exception.	○	○
You can change Key from "player" to "racer".	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
You can only set the player's ranking once.	○	○
If you call the MatchName method, the code will throw an exception.	○	○
You can change Key from "player" to "racer".	○	○

Question: 248

You create an object of type ANumber. The class is defined as follows.

```
Public Class ANumber
  Private _number As Integer = 3

  Public Sub New()
  End Sub

  Public Sub New(number As Integer)
    _number = number
  End Sub

End Class
```

The code is executed as follows.

```
Dim myNumber As New ANumber(7)
```

What is the value of number after the code is executed?

A. Null
B. 0
C. 3
D. 7

Answer: D

Question: 249

You have a class with a property.
You need to ensure that consumers of the class can write to the value of the property.
Which keyword should you use?

A. Add
B. value
C. Set
D. Get

Answer: A

Question: 250

You are designing a Windows Store application.
You need to design the application so that users can share content by connecting two or more devices by physically tapping the devices together.
Which user experience (UX) guideline for Windows Store applications should you use?

A. share and data exchange
B. device-awareness
C. location-awareness
D. proximity gestures

Answer: A

Question: 251

This question requires that you evaluate the underlined text to determine if it is correct.
The bubble sort algorithm steps through the list to be sorted, comparing adjacent items and swapping them if they are in the wrong order.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. merge
C. library
D. insertion

Answer: A

Question: 252

Which two types of information should you include in an effective test case? (Choose two.)

A. any pre-conditions necessary to test the case
B. the expected result from testing the case
C. multiple actions combined as a single step to test the case
D. the stakeholders who originated the test case

Answer: AB

Question: 253

You are developing a webpage that enables students to manage races.
The webpage will display two lists: past races and upcoming races. The page also contains a sidebar with contact information and a panel with social media settings that can be edited. Race results can be shared on social media.
How many components will be on the webpage?

A. 2
B. 3
C. 4

D. 5

Answer: C

Question: 254

This question requires that you evaluate the underlined text to determine if it is correct.
A table whose attributes depend only on the primary key must be at least second normal form.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. first
C. third
D. fourth

Answer: A

Question: 255

You have a table named ITEMS with the following fields:
ID (integer, primary key. auto generated)
Description (text)
Completed (Boolean)
You need to insert the following data in the table:
"Cheese", False
Which statement should you use?

A. INSERT INTO ITEMS (Description, Completed) VALUES ('Cheese', 1)
B. INSERT INTO ITEMS (ID, Description, Completed) VALUES (NEWID(), 'Cheese', 0)
C. INSERT INTO ITEMS (ID, Description, Completed) VALUES (1, 'Cheese", 0)
D. INSERT INTO ITEMS (Description, Completed) VALUES ('Cheese', 0)

Answer: A

Question: 256

Which three are valid SQL keywords? (Choose three.)

A. GET
B. FROM
C. SELECT
D. WHAT
E. WHERE

Answer: ACE

Question: 257

You run the following code.

```
Dim beakerFull As Boolean = True
Dim flameOn As Boolean = False
Dim iResult As Integer

Select Case beakerFull
  Case True
    Select Case flameOn
      Case True
        iResult = 4
      Case False
        iResult = 3
    End Select
  Case False
  Case flameOn
  Case False
    iResult = 2
  Case True
    iResult = 1
End Select
```

What will the value of the variable iResult be?

A. 1
B. 2
C. 3
D. 4

Answer: C

Question: 258

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Description of Behavior	Yes	No
The "is a" relationship between classes refers to composition.	○	○
The "has a" relationship between classes refers to inheritance.	○	○
Both composition and inheritance allow you to create sub-objects.	○	○

Answer:

Answer Area

Description of Behavior	Yes	No
The "is a" relationship between classes refers to composition.	○	○
The "has a" relationship between classes refers to inheritance.	○	○
Both composition and inheritance allow you to create sub-objects.	○	○

Question: 259

The Dog class and the Cat class inherit from the Animal class. The Animal class includes a breathe() method and a speak() method. If the speak() method is called from an object of type Dog, the result is a bark. If the speak() method is called from an object of type Cat, the result is a meow.
Which term is used to describe this object-oriented concept?

A. multiple inheritance
B. encapsulation
C. polymorphism
D. data hiding

Answer: D

Question: 260

This question requires that you evaluate the underlined text to determine if it is correct.
Converting a value type to a reference type in an object is called boxing.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. unboxing
C. interfacing
D. mapping

Answer: A

Question: 261

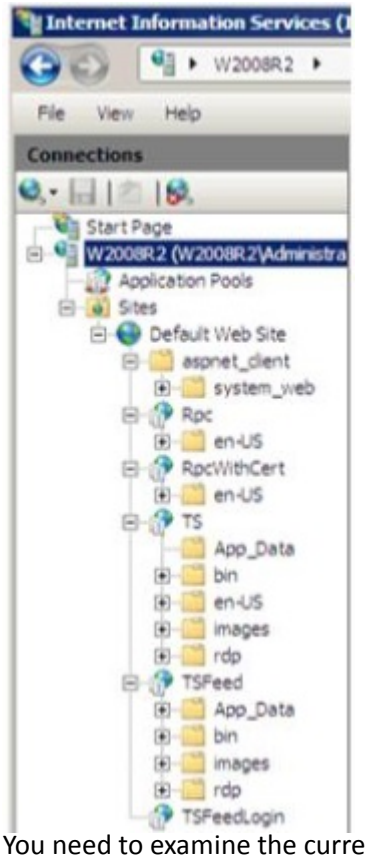
Which service can host an ASP.NET application?

A. Remote Desktop Services
B. Internet Information Services
C. web Services
D. Cluster Services

Answer: B

Question: 262

HOTSPOT
You open the Internet Information Services 7.5 Manager console as shown in the following exhibit:



You need to examine the current configuration of the server W2008R2.
Use the drop-down menus to select the answer choice that answers each question. Each correct selection is worth one point.

Answer Area

How many sites are configured on server W2008R2?

How many applications are configured on server W2008R2?

Answer Area

How many sites are configured on server W2008R2?

How many applications are configured on server W2008R2?

0
1
5
13

0
1
5
13

Answer:

Answer Area

How many sites are configured on server W2008R2?

0
1
5
13

How many applications are configured on server W2008R2?

0
1
5
13

Question: 263

HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Statement	Yes	No
XHTML attribute names must be in uppercase.	○	○
XHTML attribute values must be in quotation marks.	○	○
XHTML attribute minimization is forbidden.	○	○

Answer:

Answer Area

Statement	Yes	No
XHTML attribute names must be in uppercase.	○	◉
XHTML attribute values must be in quotation marks.	◉	○
XHTML attribute minimization is forbidden.	◉	○

Question: 264

You have a website that includes a form for usemame and password.

You need to ensure that users enter their username and password. The validation must work in all browsers.

Where should you put the validation control?

A. in the Web.config file
B. in the server-side code only
C. in the client-side code only
D. in both the client-side code and the server-side code

Answer: A

Question: 265

You plan to create an application for your company. The application will run automated routines and write the results to a text-based log file. Little or no user interaction is required.
Security requirements on the host computers prevent you from running applications on startup, and users must be able to see the status easily on the screen. The host computers also have limited memory and monitors that display only two colors. These computers will have no network connectivity.
Which type of application should you use for this environment?

A. Windows Store app
B. console-based
C. DirectX
D. Windows Service

Answer: A

Question: 266

Which three items are benefits of encapsulation? (Choose three.)

A. restricted access
B. flexibility
C. maintainability
D. performance
E. inheritance

Answer: ABC

Question: 267

This question requires that you evaluate the underlined text to determine if it is correct.
When a base class declares a method as virtual, the method is hidden from implementation bv a derived class.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. can be overridden with its own implementation by a derived class
C. must be overridden in any non-abstract class that directly inherits from that class
D. cannot be overridden with its own implementation by a derived class

Answer: B

Question: 268

HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Statement	Yes	No
Within an XHTML document, the XHTML DOCTYPE declaration is mandatory.	○	○
Within an XHTML document, the XML namespace attribute in the html tag is mandatory.	○	○
Within an XHTML document, the html, head, title, and body tags are mandatory.	○	○

Answer:

Answer Area

Statement	Yes	No
Within an XHTML document, the XHTML DOCTYPE declaration is mandatory.	○	○
Within an XHTML document, the XML namespace attribute in the html tag is mandatory.	○	○
Within an XHTML document, the html, head, title, and body tags are mandatory.	○	○

Question: 269

This question requires that you evaluate the underlined text to determine if it is correct.
The Response.Redirect method is used to transfer processing of the current page to a new page, and then return processing back to the calling page once processing of the new page has completed.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. Server.Transfer method
C. Server.Execute method
D. meta http-equiv="refresh" tag

Answer: C

Question: 270

You have a Microsoft ASP.NET web application.
You need to store a value that can be shared across users on the server.
Which type of state management should you use?

A. session
B. application
C. cookies
D. ViewState

Answer: A

Question: 271

This question requires that you evaluate the underlined text to determine if it is correct.
The process of transforming compiled C# code into an XML string for a web service is known as deserialization.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. serialization
C. decoding
D. encoding

Answer: B

Question: 272

This question requires that you evaluate the underlined text to determine if it is correct.
A data dictionary that describes the structure of a database is called metadata.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. normalization
C. a database management system (DBMS)
D. metacontent

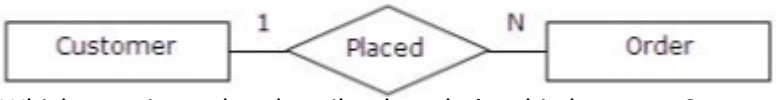
Answer: A

Question: 273

You are reviewing a design for a database. A portion of this design is shown in the exhibit. Note that you may choose to view either the Crow's Foot Notation or Chen Notation version of the design. (To view the Crow's Foot Notation, click the Exhibit A button. To view the Chen Notation, click the Exhibit B button.)

Exhibit A

Exhibit B



Which term is used to describe the relationship between Customer and Order?

A. many-to-many
B. multi-dimensional
C. one-to-many
D. one-to-one
E. one-dimensional

Answer: D

Question: 274

This question requires that you evaluate the underlined text to determine if it is correct.
To improve performance, a SQL SELECT statement should use indexes.
Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

A. No change is needed
B. joins
C. grouping
D. ordering

Answer: A

Question: 275

You are building a web application that enables international exchange students to schedule phone calls with their prospective schools.
The application allows students to indicate a preferred date and time for phone calls. Students may indicate no preferred time by leaving the date and time field empty. The application must support multiple time zones.
Which data type should you use to record the student's preferred date and time?

A.
```
ULong?
```

B.
```
DateTimeOffset?
```

C.
```
SByte
```

D.
```
Date
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question: 276

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

Answer Area

Test Behavior	Yes	No
The primary goal of unit testing is to take the smallest piece of testable software in the application, isolate it from the remainder of the code, and determine whether it behaves exactly as expected.	○	○
In unit testing, each unit is tested separately before integrating the units into modules to test the interfaces between modules.	○	○
The driver that you use in unit testing simulates a calling unit and the stub simulates a called unit.	○	○

Answer:

Answer Area

Test Behavior	Yes	No
The primary goal of unit testing is to take the smallest piece of testable software in the application, isolate it from the remainder of the code, and determine whether it behaves exactly as expected.	○	○
In unit testing, each unit is tested separately before integrating the units into modules to test the interfaces between modules.	○	○
The driver that you use in unit testing simulates a calling unit and the stub simulates a called unit.	○	○