QUESTIONS BANK FOR QUIZ 02 – COMP1098 (C# Programming)

Topics: Win Forms, LINQ, FILE I/O, ADO.NET Entity Framework

LINQ:

2. Unlike arrays, Lists do not resize automatically.
Answer: False. Lists resize automatically and arrays must be explicitly resized.

3. Visual C# requires you to write SQL to query data sources.
Answer: False. LINQ can be used to query data sources.

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

9.2 Querying an Array Using LINQ

1. In a LINQ query, the where clause specifies _____.
a) the data source
b) where to put the data
c) the condition(s) for including the item
d) the Location property
d) the data type
Answer: c

2. The range variable is implicitly defined in the _____ clause and used to produce results in the _____ clause
a) where, put
b) from, put
c) from, select
d) where, select
e) in, foreach
Answer: c

3. What method returns the number of items in LINQ query result q?
a) q.Length
b) q.Size
c) q.getUpperBound
d) q.Count
Answer: d

--True/False Statements--

4. The range variable for the LINQ query must be of type IEnumerable.
Answer: False. IEnumerable is an interface for objects that can be iterated through.

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

6. If multiple properties are listed in the select clause, the results will be of type SelectedList.
Answer: False. The query will return the properties in an object of an anonymous class.

7. A generic method is a shorter way to express overloaded methods.
Answer: True.

8. A generic method does not need an object of the class in order to be executed.
Answer: False. A static method (discussed in Chapter 10) does not need an object in order to be executed.

9. A type parameter specifies the type that must be used.
Answer: False. A type parameter is a placeholder for the type that is used.

9.3 Introduction to Collections

1. Collections of type List< T > can hold objects of what type?
a) only other lists
b) only integers
c) objects of any one type
d) None of the above
Answer: c

2. A List< T > is similar to an array, but can also _____.
a) dynamically resize
b) add items anywhere in the List< T >
c) contain objects of any one type
d) Both a and b
Answer: d

--True/False Statements--
3. The .NET collection classes provide flexible, efficient alternatives to arrays.
Answer: True.

4. A List< T > can automatically resize itself to accommodate additional elements.
Answer: True.

5. Elements can be added at any location within an array.
Answer: False. You cannot add elements to an array once it is created, you can only change the value of an element. The List< T > collection allows elements to be added at any location within the List< T >.

6. The Capacity property indicates the number of elements stored in the List< T >.
Answer: False. The Capacity property indicates the number of elements that can be stored in the List< T > without resizing.

9.4 Querying a Generic Collection Using LINQ

1.Which of the following statements about LINQ is not true?
a) A new LINQ query must be used when changes are made to the data source.

b) A LINQ query does not need to have a let clause
c) A LINQ query returns an IEnumerable object
d) LINQ stands for Language Integrated Query.
Answer: a

2. A let clause is used to create _____.
a) a method within a LINQ query
b) a subquery
c) a new range variable
d) None of the above
Answer: c

--True/False Statements--

3. LINQ is used to query collections in exactly the same way it's used to query arrays.
Answer: True.

4. A LINQ query is executed when it is created.
Answer: False. A LINQ query is not executed until its results are accessed.

WINDOW FORMS:

1. An example of software with a GUI is:
a) Windows
b) Internet Explorer
c) Visual C# 2008 Express
d) All of the above
Ans: d

2. A Panel is used to:
a) group or store components
b) display text
c) create a border around components
d) add style to a form
Ans: a

3. A GUI allows the user to interact with the program visually.
Ans: True

4. A ComboBox can display info and also have the user input info.
Ans: False, TextBoxes allow the user to enter data and can also display data. Comboboxes contain a list of drop-down items that may be added to.

5. A Label allows input to be typed into it.
Ans: False, Labels cannot be changed by the user.

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

Ans: False, ListBoxes allow multiple selections at once and ComboBoxes can allow the user to add to its list of items.

14.2 Windows Forms

1. An example of a component would be:
a) a button
b) a timer
c) a form
d) All of the above
Ans: d

2. Many of the components used for Windows applications are defined in namespace:
a) System
b) System.Windows.Forms
c) System.Windows.UI
d) System.Web.UI
Ans: b

3. All of the controls and components can be found in the tool box.
Ans: True

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

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

14.3 Event Handling

1. Events can be:
a) generated within the code of the program
b) started with a click on a button, or other control
c) generate by keyboard input
d) All of the above
Ans: d

2. Delegates act as:
a) ways of sorting events
b) a go-between for objects raising events and the methods that handle the events
c) masks for methods that handle events
d) a way to call many methods at once
Ans: b

3. Multicast event delegates must reference methods:

a) with the same name, but a different signature
b) that should all be raised by the same event
c) defined earlier in the program
d) with different names and different signatures
Ans: b

4. In order to add or remove an event from a delegate, you would use:
a) the Add and Remove methods
b) the Add and Subtract methods
c) the += and the -= operators
d) events can only be added with the += and not removed from a delegate
Ans: c

5. How are event handlers generated?
a) by double-clicking on components
b) explicitly writing the code for the event
c) using the Properties window
d) All of the above
Ans: d

6. Event handlers are methods that process events and perform tasks based on those events.
Ans: True

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

8. Event delegates can contain any method.
Ans: False, the methods have to contain the same arguments and must return void.

9. Every event you want the program to respond to must be coded manually.
Ans: False, C# generates most of the code for the event and you ad the code to respond to the event.

10. In order to create an event you must click on the event icon in the properties window.
Ans: True

11. The correct syntax for an event handler is: eventName_controlName.
Ans: False, it is: controlName_eventName(sender, arguments)

12. By looking up ControlName class and clicking the events section, you can find out all the events and the parameters that a control has.
Ans: True

14.4 Control Properties and Layout

1. An *active* control is one that:
a) can move about the screen.
b) is most commonly clicked by the user
c) is the control in focus

d) one that changes, whether it is color or another property, on an event.
Ans: c

2. Docking and anchoring are easy ways to:
a) allow a form to change sizes without altering the form too much.
b) prevent users from changing the layout of the window.
c) prevent a user from resizing the form.
d) All of the above
Ans: a

3. You can use the TabIndex property to determine the order in which tabbing will occur.
Ans: True

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

5. Property Anchor allows the programmer to prevent form alterations by the user.
Ans: False, it's used to keep the control a fixed distance from the sides of its parent control, which is usually but not always the form itself.

6. The Padding property specifies the distance between the docked control and the Form edges.
Ans: True.

7. Visual Studio provides snap lines to help align controls.
Ans: True.

14.5 Label**s,** TextBox**es and** Button**s**

1. The difference between textboxes and labels is:
a) textboxes have a drop=down feature
b) labels cannot be changed during runtime
c) textboxes allow the user to enter information into them
d) nothing
Ans: c

2. What does the method InitializeComponent contain?
a) code provided by the user which sets the properties of controls that were added
b) code provided by Visual Studio which sets the properties of controls that were added
c) a and b
d) None of the above
Ans: b

3. It's common for labels to change text at runtime.
Ans: False, they usually don't get changed but have the ability to be changed when needed.

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

Ans: False, the Password property means that the text entered is changed to one repeated character to prevent others from seeing the entered text.

5. Buttons are components that are usually click triggered.
Ans: True

6. All buttons, including checkboxes and radiobuttons, are derived from class Button.
Ans: False, they are derived from class ButtonBase.

14.6 GroupBox**es and** Panel**s**

1. GroupBoxes and Panels are used to:
a) bundle a bunch of controls into one package
b) allow more than one RadioButton to be true at the same time if the radio buttons are on different GroupBoxes or Panels
c) organize the form in a more orderly fashion
d) All of the above
Ans: d

2. In order to insert a control into a Panel or GroupBox in **Design** mode one must:
a) manually create the control inside the Panel or GroupBox
b) create a control and then drag it into the Panel or GroupBox
c) create a control and then set it as inside the Panel or GroupBox
d) group several controls and set their MainControl property to the Panel or GroupBox
Ans: b

3. A GroupBox can be used to organize similar controls.
Ans: True

4. GroupBoxes have a text display and can have scrollbars inserted into them.
Ans: False, GroupBoxes do not have scroll bars but they do have a Text property.

5. Panels have the ability to have scrollbars should their contents get too big.
Ans: True

6. The AutoScroll property will cause a Panel to scroll to the bottom if the controls displayed are too large.
Ans: False, AutoScroll simply inserts scrollbars if needed.

7. GroupBoxes can display captions and do not include scrollbars, whereas Panels can include scrollbars and do no include a caption.
Ans: True.

14.6 CheckBox**es and** RadioButton**s**

1. RadioButtons are used to:
a) let the user choose between the given choices.
b) let the user select any number of given options.

c) provide animation.
d) a) & b)
e) All of the above
Ans: a

2. The major difference between a CheckBox and a RadioButton is that:
a) RadioButtons are generally grouped to allow choices
b) CheckBoxes usually represent options that allow more than one to be used
c) Only one RadioButton per group can be selected at once
d) b and c
Ans: d

3. Using the CheckState property you can determine whether the CheckBox is checked.
Ans: False, it can also be in an indeterminate state; programmers should use the Checked property.

4. RadioButtons can be used interchangeably with CheckBoxes.
Ans: False, RadioButtons can have only one selected per group, whereas many CheckBoxes can be selected at once.

5. Only one RadioButton can be checked per form on the screen.
Ans: False, if grouped in Panels or GroupBoxes more than one RadioButton per form can be checked.

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

14.8 PictureBox**es**

1. The StretchImage property is used to:
a) change the size of the image to fit the PictureBox
b) change the size of the PictureBox to fit the image
c) find a medium between the PictureBox and the image
d) make the picture as large as possible while still maintaining quality
Ans: a

2. The AutoSize property is used to:
a) change the size of the image to fit the PictureBox
b) change the size of the PictureBox to fit the image
c) find a medium between the PictureBox and the actual picture
d) make the picture as large as possible while still maintaining quality
Ans: b

3. PictureBoxes can be used with .gif, .jpg, bitmaps, icons and metafiles.
Ans: True

4. The Directory class can be used to find specific images on the computer.
Ans: True

5. The GetCurrentDirectory is used to return the location of the current working directory (the location from which the program is running).
Ans: True

6. The Directory class is found within the System namespace.
False, it's found within the System.IO namespace

14.9 ToolTip**s**

1. What is a tool tip useful for?
a) tip of the mouse is blinks while hovering over an item in a GUI
b) the tip of the mouse is highlighted while hovering over an item in a GUI
c) displays helpful text under the mouse while hovering over an item in a GUI
d) All of the above
Ans: c

2. What does the InitialDelay property of the ToolTip determine?
a) The amount of time that the tool tip appears while the mouse is over a control.
b) The amount of time that a mouse must hover over a control before a tool tip appears.
c) The amount of time between which two different tool tips appear.
d) The amount of time in which the tool tip is hidden for.
Ans: b

3. When a ToolTip is being displayed, the appearance of it remains the same.
Ans: False. The Draw event allows you to modify the appearance of the tool tip when it's displayed.

4. When adding a ToolTip component from the Toolbox, it appears on the arbitrary location on the Form.
Ans: False. When adding a ToolTip component from the Toolbox, it appears in the component tray.

14.10 NumericUpDown **Control**

1. What control should you use to restrict a user's choice to a specific range of numeric values,
a) NumericUpDown
b) TextBox
c) NumberBox
d) None of the above
Ans: a

2. What does the ReadOnly property indicate?
a) the number of the control cannot change
b) the user cannot click the buttons to select a number into the control
c) the user cannot type a number into the control
d) all of the above
Ans: c

14.11 Mouse-Event Handling

1. When obtaining the coordinates of the mouse, they are
a) always taken from the main form of the program
b) relative to the control that caused the event
c) taken from the center of the form
d) start from wherever the mouse is at that second
Ans: b

2. When using mouse coordinates, *(0, 0)* is located in the:
a) bottom left
b) bottom right
c) top left
d) top right
Ans: c

3. Mouse interaction with the GUI is limited to click, press, and move.
Ans: False, there are a variety of interactions the mouse can perform; however, they can all be grouped into those three basic categories.

4. MouseUp and MouseDown events are used when the mouse moves up or down.
Ans: False, it's used to determine if the mouse button is clicked (down) or not (up).

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

15.1 Introduction

1. LinkLabels are used to:
a) organize a group of labels
b) bring the user to a desired location
c) allow many labels to be modified during runtime all at once
d) All of the above
Answer: b

2. Users can input and display dates and times through:
a) the MonthCalendar control
b) the DateTimePicker control
c) the CalendarTime control
d) a and b
Answer: d

3. Menus are used to offer several organized choices for the user.
Answer: True

4. Custom controls can be created but *cannot* be inserted into the toolbox.
Answer: False, custom controls *can* be inserted into the toolbox.

15.2 Menu**s**

1. Which of the following statements are *true* about menus created through C#?
a) Provide groups of related commands for Windows applications.
b) Organize commands without cluttering the GUI
c) Have the capacity to create shortcuts for the menu commands
d) All of the above
Answer: d

2. Types of menus available are:
a) the normal: **File**, **Edit**, **Help**.
b) the normal and some: also Format, Window, Special, View.
c) you can insert whatever menu titles you want to..
d) C# makes all the menus for the programmer.
Answer: c

3. Menus are ways of grouping similar commands and prevent GUI clutter.
Answer: True

4. To set an underline shortcut in a Menu, you use the tilde key (~).
Answer: False, the ampersand key (&) is used before the desired letter.

5. Creating a window menu is mostly done through programming in the form load event.
Answer: False, entire menus can be created by just dragging and dropping and editing properties in Visual Studio.

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

15.3 MonthCalendar Control

1. What does the MonthCalendar allow for?
a) time selection
b) date selection
c) a and b
d) None of the above
Answer: b

2. What event occurs when a new date is selected?
a) NewDate
b) ModifiedDate
c) ChangedDate
d) DateChanged
Answer: d

3. For a selection, the user must type the desired date.
Answer: False. The MonthCalendar control provides a GUI calendar that the user can select from.

4.Only one date can be selected at a time in the MonthCalendar control.
Answer: False. The user can hold *Shift* to select multiple dates.

15.4 DateTimePicker **Control**

1. What does the DateTimePicker allow for?
a) time selection
b) date selection
c) a and b
d) None of the above
Answer: c

2. What is the event when a value is selected?
a) ValueChanged
b) DateTimeModified
c) DateModified
d) TimeModified
Answer: a

3. The Format property specifies the user's selection options using the DateTimePickerFormat enumeration.
Answer: True.

4. The DateTimePicker is limited to displaying up to a year's selection at a time.
Answer: False. Setting various properties of the control, the DateTimePicker control may display *more* than a year's selection.

15.5 LinkLabel **Control**

1. LinkLabels are most commonly used for:
a) shortcuts to menu items.
b) links to an Explorer window.
c) links to a Web site.
d) a) & b)
e) b) & c)
Answer: e

2. The LinkVisited property is used to:
a) determine if a link has be visited by the user previously
b) set what the color will be for an already visited link
c) sets the link color to the VisitedLinkColor as opposed to the LinkColor
d) change the destination of the link
Answer: c

3. LinkLabels appear as Buttons that bring a user to another location.
Answer: False, LinkLabels appear as text with an underline under it and are defaulted to blue text color.

4. LinkLabels are used to open up a web page or other desired location.
Answer: True

5. Shortcuts to LinkLabels can also be created using the ampersand key (&) when the feature is enabled.
Answer: True

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

15.6 ListBox **Control**

1. If you want a user to select several choices you should use:
a) a ListBox
b) a CheckListBox
c) either a ListBox or a CheckedListBox
d) neither a ListBox or a CheckedListBox
Answer: c

2. The syntax for adding a new item to a ListBox is:
a) ListBox.Items.Add("item")
b) ListBox.Add("item")
c) ListBox.Items.Insert("item")
d) ListBox.Insert("item")
Answer: a

3. In order to clear a list of all values the syntax is:
a) ListBox.Items.Clear()
b) ListBox.Items.DeleteItem.All()
c) ListBox.Clear()
d) ListBox.Items.DeleteAll()
Answer: a

4. In order to have a program close use:
a) the reserved word exit
b) the reserved word unload
c) Application.Exit()
d) Application.Unload()
Answer: c

5. By default, ListBox items cannot be changed by the user.
Answer: True

6. There are three selection modes for a ListBox; none, one, or multi.

Answer: False, there is a MultiSimple which allows multiple selections and there is a MultiExtended which allows the selection of multiple items by using keys as well.

7. To add an item to a ListBox use the Add method of the Items property.
Answer: True

8. To remove an item from a ListBox, use the Delete method of the Items property.
Answer: False, use the Remove method of the Items property.

9. The SelectedIndex property returns the index of the selected item.
Answer: True

10. If the user has not selected any items from the ListBox then SelectedIndex returns 0.
Answer: False, it returns -1.

15.7 CheckedListBox **Control**

1. To add an item to a CheckedListBox use:
a) the Add method
b) the AddRange method
c) the **String Collection Editor**
d) All of the above
Answer: d

2. Class CheckedListBox derives from class ListBox and contains similar properties.
Answer: True.

3. Setting the SelectionMode property to SelectionMode.One allows only one checkbox to be checked at once.
Answer: False. A CheckedListBox always allows *multiple* items to be checked.

4. The ItemCheck event occurs when an item is either checked or unchecked.
Answer: True

5. The GetItemChecked method returns the last item that was checked by the user.
Answer: False, it takes an integer and returns true if the item at that index is checked.

15.8 ComboBox **Control**

1. You should use a ComboBox when:
a) aesthetic reasons dictate it.
b) there are many choices.
c) they want to allow the user to select from pre-set options.
d) all of the above.
e) a) & c).
Answer: d

2. The MaxDropDownItems property
a) sets the maximum number of items the list can hold
b) creates a scrollbar on the list after it exceeds the set max
c) creates a max to how many items the user can add to the list
d) can be set from 1 to 1000
Answer: b

3. A ComboBox is a TextBox with a drop-down list.
Answer: True

4. In a ComboBox only the programmer can enter items to the list.
Answer: False, they can also be entered by the user.

5. The DropDownList style of a ComboBox prevents the user from entering items.
Answer: True

6. The SelectedIndexChanged occurs when the user selects a different item from the list.
Answer: True

15.9 TreeView **Control**

1. When adding a node to a tree use:
a) *treeView*.Nodes[*parentIndex*].Nodes.Add(new TreeNode(*ChildLabel*))
b) *treeView*.Node[*parentIndex*].Add(new TreeNode(*ChildLabel*))
c) *treeView*.Node[*parentIndex*].Add(*ChildLabel*)
d) *treeView*.Node[*parentIndex*].Nodes.Add(*ChildLabel*)
Answer: a

2. An example of a TreeView is:
a) all of your e-mail
b) a Web site in Internet Explorer
c) the **My Computer** folder
d) the left side of Windows Explorer
Answer: d

3. A tree is a hierarchical collection of child and parent nodes.
Answer: True

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

5. There is no way to expand or contract a TreeView.
Answer: False there are plus and minus signs next to each node to expand/contract it.

6. The GetDirectories method of class Directory will return an array of sub-directories of the given directory.
Answer: True

15.10 ListView **Control**

1. The Activation property of a ListView can be set to:
a) OneClick
b) TwoClick
c) Standard
d) All of the above
Answer: d

2. The Exists method of class Directory is used to:
a) check if a given directory has sub-directories
b) check if a given directory actually exists
c) make sure that the List has a beginning and an ending
d) check for an actual list by making sure the first and last elements are not the same, meaning the list only has one item in it.
Answer: b

3. A ListView is the viewing of a ListBox.
Answer: False, it is similar, but can also include icons.

4. An example of a ListView is the right side of windows explorer.
Answer: True

5. The View property can be changed to LargeIcon, SmallIcon, List or Details.
Answer: True

15.11 TabControl **Control**

1. The main purpose of tabbed windows are:
a) to group controls
b) to conserve screen space
c) to organize the form
d) All of the above
Answer: d

2. The ItemSize property is used to determine
a) how big controls on each TabPage can be
b) the actual size of each TabPage
c) the size of the tab for each TabPage
d) there is no ItemSize property
Answer: c

3. TabPages can contain only buttons, checks and labels
Answer: False, TabPages can contain any other visual tool, even list and tree views.

4. The MultiLine property determines whether tabs can fill more than one row or not.
Answer: True

5. Each TabPage on the form must use the same event triggers.
Answer: False, they can each have their own set of events.

15.12 Multiple Document Interface (MDI) Windows

1. A good example of an MDI program is:
a) Notepad
b) Adobe Photoshop
c) Internet Explorer
d) All of the above
Answer: b

2. What is the event that is generated when an MDI child is closed or activated?
a) MdiChildStatusChanged
b) MdiChildActivate
c) MdiChildModified
d) MdiChildCA
Answer: b

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

4. Windows within windows are called the sub-windows of the original windows.
Answer: False, they are called children of the original windows.

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

6. The user can tile or cascade the open children windows.
Answer: True

FILE I/O:

17.1 Introduction

1. Data stored in a file is considered:
a) temporary data
b) persistent data
c) recurring data
d) there is no need to store data in files
Answer: b

2. Files can be stored in:
a) hard drives
b) optical disks
c) magnetic tapes
d) All of the above
Answer: d

3. _____ are used for long-term retention of large amounts of data.
a) Memory cards
b) Buffers
c) Files
d) Data structures
Answer: c

17.2 Data Hierarchy

1. Binary code is actually:
a) a complex programming language.
b) a series of 0's and 1's.
c) machine language instructions.
d) a series of characters representing the numbers 0 to 9.
Answer: b

2. Computer circuitry is able to:
a) get the value of a bit
b) examine the value of a bit
c) reverse the value of a bit
d) All of the above
Answer: d

3. The smallest data item in a computer is the _____.
a) bit
b) byte
c) kilobyte
d) None of the above.
Answer: a

4. One byte is composed of:
a) 2 bits
b) 4 bits
c) 8 bits
d) 10 bits
Answer: c

5. An example of when a file should *not* be used is:
a) to save the status of a video game for another session.
b) to save the value of a variable at runtime.
c) to log errors in the execution of a program.
d) these are all good examples of when files should be used.
Answer: b

6. In a _____ file, a record typically stored in order by a record-key field.
a) chronological
b) non-sequential
c) sequential
d) record-key
Answer: c

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

8. Characters in C# are Unicode characters, each represented by one byte.
Answer:
hierarchy, data items become larger and more complex in structure as we progress from False. A character in C# is represented by two bytes.

17.3 Files and Streams

1. The Console.Error property returns:
a) a standard error stream object
b) a new error
c) an object of type error
d) None of the above
Answer: a

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

3. When a file is opened, a stream object is created and associated with the file.
Answer: True.

4. The standard output stream object enables a program to output data to the screen.
Answer: True.

5. Class File can only create new files.
Answer: False. Class File can be used to alter files.

6. Class Directory is used to change directories.
Answer: True

7. Method GetFiles of class Directory can be used to display all the files in a given directory.
Answer: True

17.5 Creating a Sequential-Access Text File

1. What kind of exception is thrown if there's a problem opening or creating a StreamWriter?
a) Exception
b) StreamException
c) OpenAndCreatingException
d) IOException
Answer: d

2. The enumeration FileAccess is used to:
a) control user access to a file
b) control program access to a file
c) control the amount of updating that can be done on a file at once
d) FileAccess is a method, not an enumeration
Answer: a

3. Resource releasing should be done as soon as the resource is no longer needed.
Answer: True

4. The classes dealing with files and directories are located in the System.IO namespace.
Answer: True

17.6 Reading Data from a Sequential-Access Text File

1. Use the _____ method of class OpenFileDialog to show a dialog that allows the user to select a file to be opened.
a) **OpenFile**
b) **ChooseFile**
c) **ShowDialog**
d) **OpenFileDialog**
Answer: c

2. The FileAccess.Read enumeration member is used if the file should not be modified.
Answer: True

3. An OpenFileDialog allows a user to select a file to open.
Answer: True

Introduction

1. SQL is an acronym for:
a) Smart Query Language
b) Simulated Query Language
c) Structured Query Language
d) None of the above
Answer: c

2. Today's most popular database systems are _____.
a) management databases
b) structural databases
c) formatted databases
d) relational databases
Answer: d

3. A query is a request to the database for the data that satisfies the specified criteria.
Answer: True

4. Database management systems enable you to access and store data without worrying about the internal representation of databases.
Answer: True.

Relational Databases

1. Relational databases can be thought of as _____.
a) rows
b) columns
c) tables of rows and columns
d) three-dimensional arrays
Answer: c

2. A relational database model allows relationships between data to be considered without concern for the _____.
a) meaning of the data
b) structure of the data
c) application of the data
d) All of the above
Answer: b

--True/False Statements--

3. A relational database model is a way of organizing data and considering relationships based on the physical structure of the data.
Answer: False, a relational database model does not take into concern the physical structure of the data.

4. A primary key must be unique for each record in the relational database table.
Answer: True

5. A primary key field can be duplicated in other records of the same relational database table, making it easier to manipulate.
Answer: False. A primary key field cannot be duplicated in other records of the same relational database table.

6. It's possible to select only a subset of a relational database table's columns.
Answer: True.

18.3 Relational Database Overview: Books Database

1. There is a _____ relationship between a primary key and its corresponding foreign key.
a) one-to-one
b) foreign
c) one-to-many
d) structural
Answer: c

--True/False Statements--

2. Each foreign key can be created independently.
Answer: False. Each foreign key must be a primary key in another table.

18.4 LINQ to SQL

1. How does a cache help provide fast access to data?
a) It performs SQL queries.
b) It allows tables to be joined.
c) It temporarily stores data objects in memory.
d) It manages a database.
Answer: c

--True/False Statements--

2. You must create the LINQ to SQL classes that map database tables into objects in your programs.
Answer: False. The IDE generates the LINQ to SQL classes to match the database schema.

3. A foreign key has a property to access its record object in another table.
Answer: True.

4. Using a cache *increases* "round trips" of information to the database.
Answer: False. Using a cache *reduces* the number of "round trips" to the database.

18.5 LINQ to SQL: Extracting Information from a Database

1. Tables from databases are commonly shown in a GUI through a _____.
a) **DataBoxView**
b) **DataGridView**
c) **ListBoxView**
d) **SpreadSheet**
Answer: b

2. The **BindingNavigator** allows the user _____.
a) to control which row of the table is currently in view
b) to add new and delete new rows
c) to save changes to the data in view
d) All of the above
Answer: d

--True/False Statements--

3. When various databases are combined, this is known as data binding.
Answer: False. Data binding is the technique through which GUI controls are connected to data from a data source.

4. A **DataContext** object makes the necessary connections between the database and the program.
Answer: True.

18.6 More Complex LINQ Queries and Data Binding

1. Setting the **_____** property of a **DataContext** object records all queries to the specified stream.
a) **Log**
b) **QueryStack**
c) **Cache**
d) **DataTrace**
Answer: a

2. Microsoft SQL Server uses a variant of SQL called Transact-SQL.
Answer: True.

18.7 Retrieving Data from Multiple Tables with LINQ

1. LINQ's **Join** query operator functions like SQL's **INNER JOIN** operator.
Answer: True.