

# TEST BANK

Complete the **SHELLY CASHMAN SERIES**

## Microsoft<sup>®</sup> **VISUAL BASIC** **2010** For Windows, Web, Office, and Database Applications COMPREHENSIVE



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## Chapter 2: Program and Graphical User Interface Design

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### MULTIPLE RESPONSE

#### Modified Multiple Choice

1. Properties are used to describe an object's \_\_\_\_ on the screen.
- a. color
  - b. name
  - c. size
  - d. position

ANS: A, B, C, D    PTS: 1    REF: 39

2. No \_\_\_\_ are allowed in an object name.
- a. spaces
  - b. numbers
  - c. special characters
  - d. letters

ANS: A, C    PTS: 1    REF: 40

3. Once a GUI object is placed on a Windows Form object, dragging its corner sizing handle allows you to change its \_\_\_\_.
- a. vertical border resolution
  - b. height
  - c. width
  - d. center point

ANS: B, D    PTS: 1    REF: 44

4. To place a .NET component from the Toolbox in the Windows Form object, you can \_\_\_\_.
- a. right-click the component in the Toolbox
  - b. double-click the component in the Toolbox
  - c. drag it from the Toolbox
  - d. click the component in the Toolbox and then click the Windows Form object at the desired location

ANS: B, C, D    PTS: 1    REF: 46

5. The program development life cycle includes \_\_\_\_.
- a. designing the user interface
  - b. testing the program
  - c. coding the program
  - d. documenting the system

ANS: A, B, C, D    PTS: 1    REF: 75

### MODIFIED TRUE/FALSE

1. When you enter a value in the Text property for a Label object, the value will be displayed in the Text object. \_\_\_\_\_

ANS: F, Label

PTS: 1    REF: 49

2. When a Label object on a Windows Form object is selected, it has a red border.

ANS: F, dotted

PTS: 1                      REF: 51

3. A GUI object must be selected in order to delete it. \_\_\_\_\_

ANS: T    PTS: 1                      REF: 55

4. By setting the Resize property for a Button object to True, the Button object will automatically expand or contract to accommodate the amount of text entered in the Text property.

\_\_\_\_\_

ANS: F, AutoSize

PTS: 1                      REF: 69

5. A red snap line indicates that the sides of objects are aligned vertically. \_\_\_\_\_

ANS: F, blue

PTS: 1                      REF: 72

### MULTIPLE CHOICE

1. Visual Basic contains \_\_\_\_ tools that are used in the design process.

a. RAD    c. HTTP  
b. ERD    d. EFT

ANS: A                      PTS: 1                      REF: 32

2. A(n) \_\_\_\_ is equivalent to a single program created using Visual Studio.

a. application                                      c. command  
b. project    d. matrix

ANS: B                      PTS: 1                      REF: 34

3. A program whose interface will be a window on the screen of a computer running the Windows operating system, and which will allow the user to interact with the program by using this window, is created by selecting a \_\_\_\_ project in Visual Studio.

a. Web Application                                      c. Windows Application  
b. Console Application                                      d. Custom Control

ANS: C                      PTS: 1                      REF: 34

4. To create a new project using Visual Studio, you must specify both the type of application you will create and the \_\_\_\_ that you wish to use.

a. color scheme                                      c. font size  
b. programming language                                      d. window size

ANS: B                      PTS: 1                      REF: 34

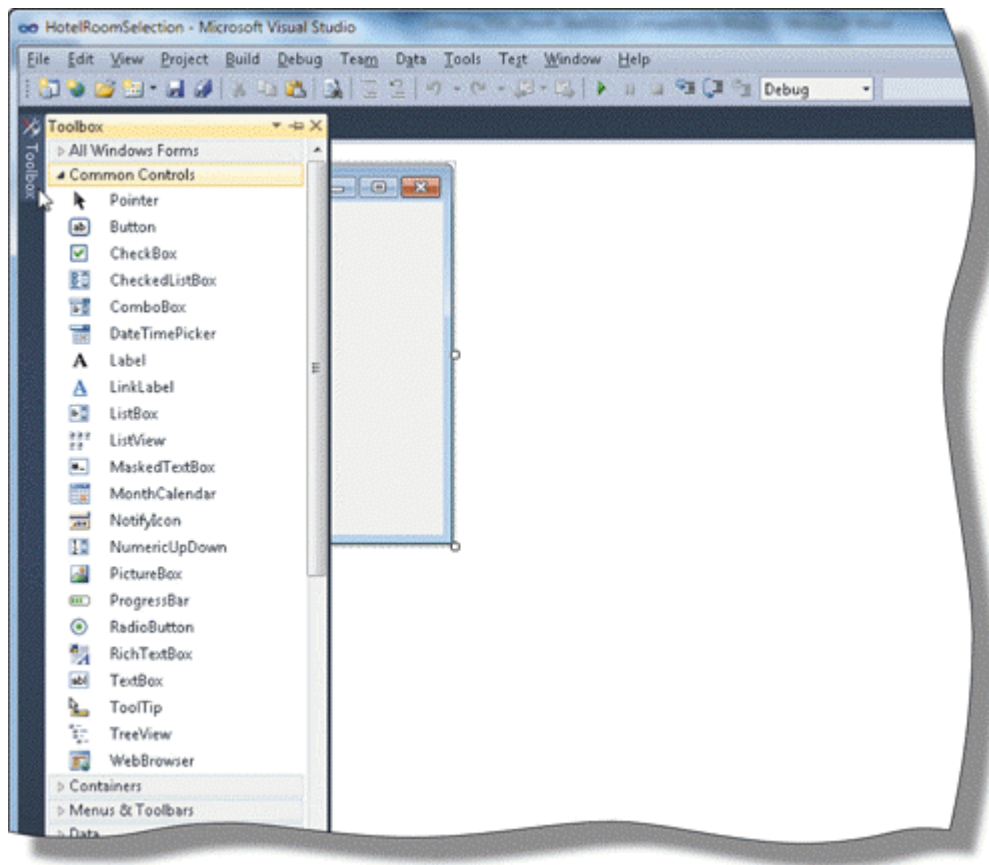


10. The \_\_\_\_ is the fundamental object in the graphical user interface you will create using Visual Studio tools.
- a. Windows Form object
  - b. user space
  - c. work area
  - d. user window

ANS: A

PTS: 1

REF: 37



11. Button, Label, and ProgressBar in the accompanying figure are \_\_\_\_ components.
- a. .NET
  - b. display
  - c. command
  - d. category

ANS: A

PTS: 1

REF: 37

12. Graphical elements called \_\_\_\_ components can be placed on a Windows Form object using the elements in the accompanying figure, when you are designing the user interface.
- a. linked
  - b. common
  - c. command
  - d. .NET

ANS: D

PTS: 1

REF: 38

13. The \_\_\_\_ contains the GUI objects that can be used when designing a graphical user interface in Visual Studio.
- a. toolbar
  - b. task bar
  - c. Toolbox
  - d. Properties window

ANS: C

PTS: 1

REF: 38

14. The Auto Hide button on the Toolbox title bar contains a \_\_\_\_ icon which indicates whether the Toolbox will remain open.
- a. Lock
  - b. Checkmark
  - c. Minimize
  - d. Pushpin

ANS: D                      PTS: 1                      REF: 38

15. \_\_\_\_ are used to control the color, size, name, and position on the screen of the GUI components.
- a. Attributes
  - b. Properties
  - c. Symbols
  - d. Indices

ANS: B                      PTS: 1                      REF: 39

16. By default, the Properties window is displayed in the \_\_\_\_ section of the Visual Studio window.
- a. upper-right
  - b. upper-left
  - c. lower-left
  - d. lower-right

ANS: D                      PTS: 1                      REF: 39

17. You are designing a form that will be used to record the mileage driven by a sales representative. Which of the following is the best name for this form?

- a. MilesForm
- b. Form1
- c. frmSalesRep
- d. frmMilesDriven

ANS: D                      PTS: 1                      REF: 40

18. Which prefix should be used to name a Windows Form object?

- a. form
- b. frm
- c. wfm
- d. win

ANS: B                      PTS: 1                      REF: 40

19. The \_\_\_\_ property of a Form object can be used to set the text that will appear on the form's title bar.

- a. Title
- b. Text
- c. Caption
- d. Label

ANS: B                      PTS: 1                      REF: 42

20. The default text value for the first Windows Form object created in a project is \_\_\_\_.

- a. 1Form
- b. Form
- c. Form1
- d. ThisForm

ANS: C                      PTS: 1                      REF: 42

21. The size of a GUI object on a Windows Form object can be changed by dragging its borders or by using the \_\_\_\_ property of the object.

- a. Dimensions
- b. Shape
- c. Resolution
- d. Size

ANS: D                      PTS: 1                      REF: 44

22. The \_\_\_\_ property of a Windows Form object can be used to change the width of the form.

- a. WindowState
- b. TabStop
- c. Size
- d. BorderStyle

ANS: C                      PTS: 1                      REF: 44

23. The \_\_\_\_ object is used to display a message or put a name on an item in a window.

- a. Label
- b. TextBox
- c. PictureBox
- d. Button

ANS: A                      PTS: 1                      REF: 45

24. The Label object appears in the \_\_\_\_ category in the Toolbox.

- a. Common Controls
- b. Text
- c. Commands
- d. Options

ANS: A                      PTS: 1                      REF: 46

25. A prefix of \_\_\_\_ should be used when naming Label objects.

- a. lab
- b. lbe
- c. lbl
- d. lal

ANS: C                      PTS: 1                      REF: 47

26. The \_\_\_\_ property of a Label object can be used to change the contents of the Label object.

- a. Caption
- b. Label
- c. Text
- d. Title

ANS: C                      PTS: 1                      REF: 48

27. You can use the \_\_\_\_ property to change the style or size of the text in a Label object.

- a. Text
- b. Font
- c. Style
- d. Format

ANS: B                      PTS: 1                      REF: 51

28. When you click the Font property in the Properties window, a(n) \_\_\_\_ button indicates multiple choices for the property will be made available when you click the button.

- a. ellipsis
- b. caret
- c. comma
- d. percent sign

ANS: A                      PTS: 1                      REF: 52

29. A Label object can be centered on the Windows Form object by using choices on the \_\_\_\_ menu.

- a. File
- b. Edit
- c. Format
- d. Tools

ANS: C                      PTS: 1                      REF: 54

30. A GUI object on a Windows Form object can be deleted by selecting it and pressing the \_\_\_\_ key.

- a. DELETE
- b. F3
- c. BACKSPACE
- d. F5

ANS: A                      PTS: 1                      REF: 55

31. A(n) \_\_\_\_ object is used to hold an image on a Windows Form object.

- a. Frame
- b. Image
- c. PictureBox
- d. GraphicObject

ANS: C                      PTS: 1                      REF: 56

32. A prefix of \_\_\_\_ should be used when naming a PictureBox object.

- a. img
- c. pcb





40. \_\_\_\_ is another name for the user interface.
- a. PictureBox
  - b. Windows Form
  - c. Presentation layer
  - d. Application matter
- ANS: C                      PTS: 1                      REF: 79

### TRUE/FALSE

1. Visual Studio 2010 is an integrated development environment.
- ANS: T                      PTS: 1                      REF: 30
2. Before beginning to design the user interface, the developer should know how to use certain Visual Studio and Visual Basic RAD tools because these tools are used in the design process.
- ANS: T                      PTS: 1                      REF: 32
3. A project created in Visual Studio is equivalent to a single screen at runtime.
- ANS: F                      PTS: 1                      REF: 34
4. When creating a new project using Visual Studio, you first must select the programming language to be used.
- ANS: T                      PTS: 1                      REF: 34
5. A Windows Application project will create a program that is designed to run using an Internet browser.
- ANS: F                      PTS: 1                      REF: 34
6. The Windows Form object is the fundamental object in the graphical user interface you will create using Visual Studio tools.
- ANS: T                      PTS: 1                      REF: 37
7. The Toolbar contains the GUI components that you can use when designing the form.
- ANS: F                      PTS: 1                      REF: 37
8. The Auto Display button controls whether or not the Toolbox is permanently open.
- ANS: F                      PTS: 1                      REF: 38
9. When the Toolbox is in Dockable mode, it cannot be moved.
- ANS: F                      PTS: 1                      REF: 38
10. By default, the Properties window is shown in the upper-right section of the Visual Studio window.
- ANS: F                      PTS: 1                      REF: 39

11. If the Solution Explorer window is not displayed on your screen, you can display the window by clicking View on the menu bar and then clicking Solution Explorer on the View menu.

ANS: T                   PTS: 1                   REF: 39

12. The properties in the Properties window are in alphabetic order.

ANS: T                   PTS: 1                   REF: 42

13. The Caption property is used to set the contents of the title bar of a Windows Form object.

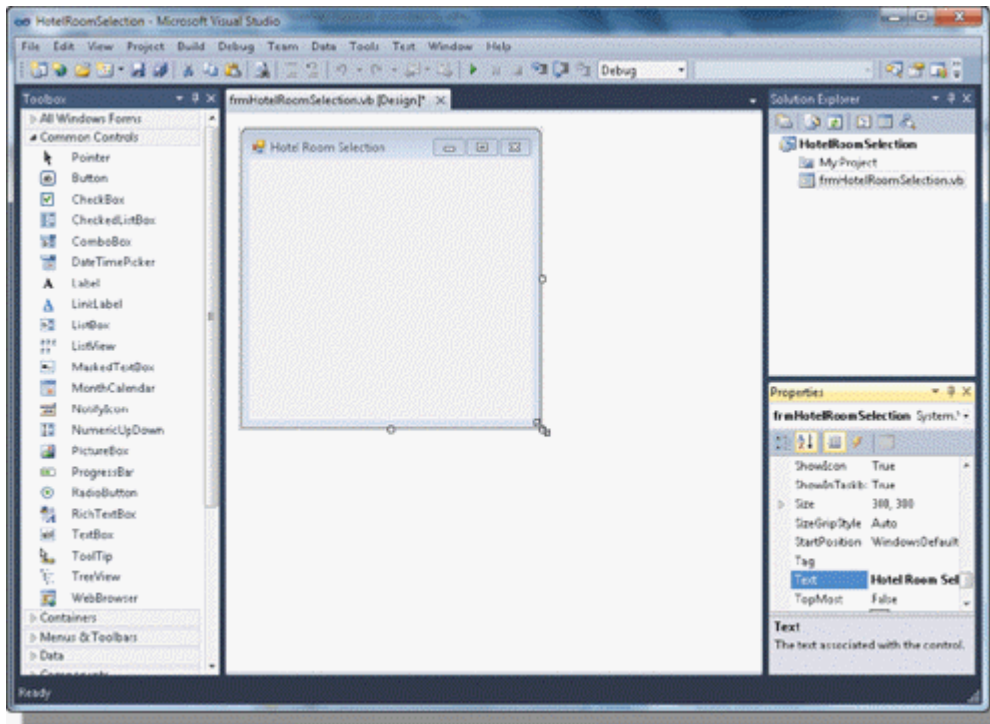
ANS: F                   PTS: 1                   REF: 42

14. You do not have to select a property in order to change it.

ANS: F                   PTS: 1                   REF: 42

15. The size of a GUI object can only be changed by using the Size property.

ANS: F                   PTS: 1                   REF: 44



16. As shown in the accompanying figure, the mouse pointer changes to a two-headed arrow to indicate that you can drag to change the size of the GUI object.

ANS: T                   PTS: 1                   REF: 44

17. You can add a .NET component to a Windows Form object by double-clicking the .NET component in the Toolbox.

ANS: T                   PTS: 1                   REF: 46

18. A Label object can only contain one line of text.

ANS: F                      PTS: 1                      REF: 50

19. You can use the Text property of a Label object to change the size and appearance of the text.

ANS: F                      PTS: 1                      REF: 51

20. When you change the size of the font used in a Label object, the Label object will automatically expand to accommodate the changed font.

ANS: T                      PTS: 1                      REF: 53

21. A GUI object must be dragged into position when you want to center it on a Windows Form object.

ANS: F                      PTS: 1                      REF: 54

22. The Undo button cannot be used to restore a GUI object that has been deleted.

ANS: F                      PTS: 1                      REF: 56

23. When aligning several GUI objects, the first object selected is the controlling object, and the other objects will be aligned with it.

ANS: T                      PTS: 1                      REF: 62

24. To change the contents of the text that appears on the face of a Button object, you must use the Caption property.

ANS: F                      PTS: 1                      REF: 67

25. When you save a Visual Basic project the first time, you must select the location where the project is to be saved.

ANS: T                      PTS: 1                      REF: 74

## COMPLETION

1. Visual Studio 2010 is the \_\_\_\_\_ that is used when writing Visual Basic programs.

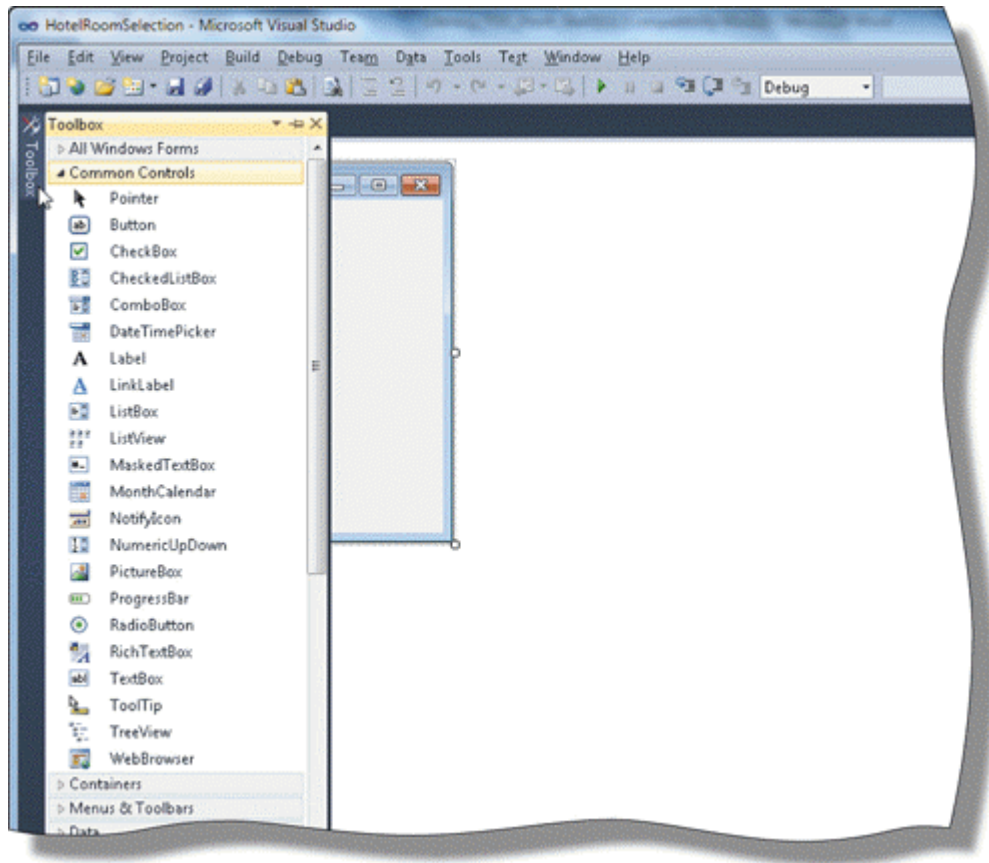
ANS:  
integrated development environment  
integrated development environment (IDE)  
IDE

PTS: 1                      REF: 30

2. A(n) \_\_\_\_\_ is a program that will include, as the user interface, a window on the screen of a computer using the Windows operating system with which the user will interact.

ANS: Windows Application project

PTS: 1                      REF: 34



3. As shown in the accompanying figure, the Toolbox contains the \_\_\_\_\_ that can be placed on the Windows Form object.

ANS: .NET components

PTS: 1 REF: 38

4. When the Pushpin icon on the Auto Hide button is vertical, the part of the Visual Studio window shown in the accompanying figure is said to be in \_\_\_\_\_ mode.

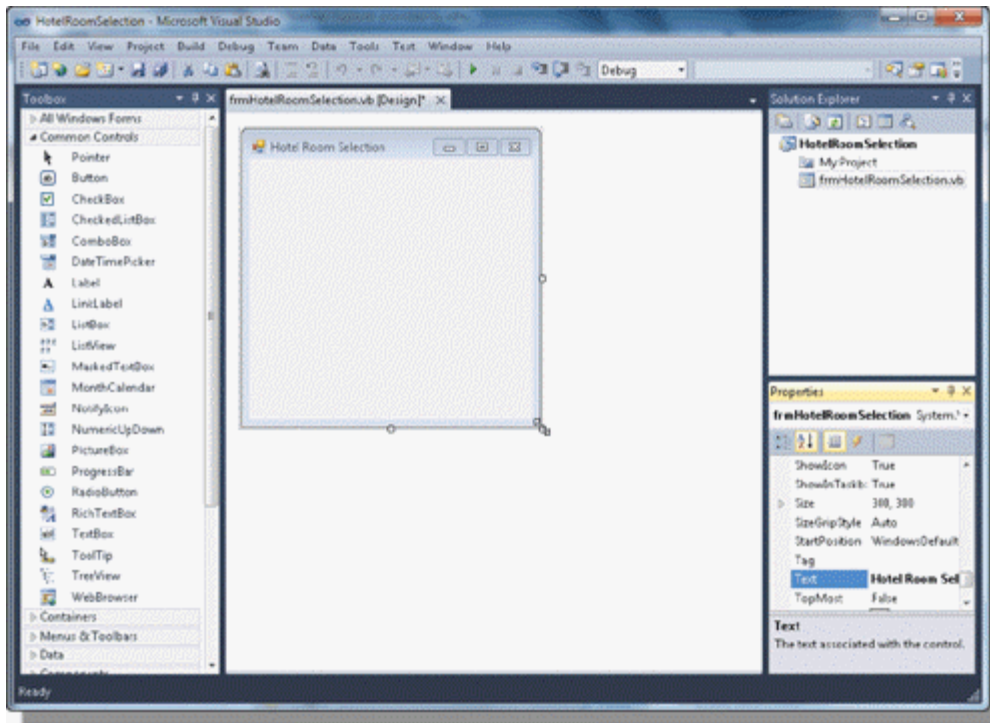
ANS:  
dockable  
Dockable

PTS: 1 REF: 38

5. If the properties in the Properties window do not appear in alphabetical order, click the \_\_\_\_\_ button to place them in alphabetical order.

ANS: Alphabetical

PTS: 1 REF: 39



6. As shown in the accompanying figure, when a GUI object on a Windows Form object is selected in Visual Studio, \_\_\_\_\_ appear on the outer edges of the object that allow you to change the size of the GUI object.

ANS: sizing handles

PTS: 1 REF: 40

7. When a Windows Form object has been resized, the exact size in numbers of horizontal and vertical pixels is shown on the \_\_\_\_\_ bar.

ANS: status

PTS: 1 REF: 45

8. A(n) \_\_\_\_\_ object is used in a graphical user interface to provide information about items on the window.

ANS: Label

PTS: 1 REF: 45

9. The default contents of a Label object can be changed by using the \_\_\_\_\_ property.

ANS: Text

PTS: 1 REF: 48

10. A GUI object on a Windows Form object can be deleted by selecting it and pressing the \_\_\_\_\_ key on the keyboard.

ANS: DELETE

PTS: 1 REF: 55

11. You can resize a GUI object to be the same size as another GUI object by using the Make Same Size command on the \_\_\_\_\_ menu.

ANS: Format

PTS: 1 REF: 61

12. \_\_\_\_\_ means that one element in the GUI is lined up horizontally and/or vertically with another element in the window.

ANS: Alignment

PTS: 1 REF: 62

13. A(n) \_\_\_\_\_ object is generally used on a form to cause an event to occur when the program is executing.

ANS: Button

PTS: 1 REF: 65

14. A prefix of \_\_\_\_\_ should be used when naming a Button object.

ANS: btn

PTS: 1 REF: 67

15. A snap line that is colored \_\_\_\_\_ indicates that the text within an object is aligned with the text in another object.

ANS: red

PTS: 1 REF: 73

16. Program \_\_\_\_\_ consists of the instructions written using a programming language that ultimately can be executed by a computer.

ANS: code

PTS: 1 REF: 75

17. Program and system \_\_\_\_\_ is the process of changing and updating programs.

ANS: maintenance

PTS: 1 REF: 76

18. A(n) \_\_\_\_\_ is a sequence of actions a user will perform when using the program.

ANS: use case

PTS: 1                    REF: 78

19. A(n) \_\_\_\_\_ specifies each of the use case sequences of actions by describing what the user will do and how the program will respond.

ANS: Use Case Definition

PTS: 1                    REF: 78

20. User interface designs with no functionality, called \_\_\_\_\_, are created for approval of the design only.

ANS: mock-ups

PTS: 1                    REF: 79

## MATCHING

*Identify the letter of the choice that best matches the phrase or definition.*

- |                   |                    |
|-------------------|--------------------|
| a. templates      | f. .NET components |
| b. Dockable       | g. PictureBox      |
| c. blue           | h. lbl             |
| d. sizing handles | i. red             |
| e. title bar      | j. btn             |

1. When creating a new project using Visual Studio, the types of programs that can be created are shown as these
2. After a project has been created in Visual Studio, the project name will be displayed on this part of the Visual Studio IDE
3. The graphical objects that can be used to design the user interface
4. The Pushpin icon on the Auto Hide button of the Toolbox will appear in a vertical position when the Toolbox is in this mode
5. When an object is selected on a Windows Form object, these will appear on the object
6. When the mouse pointer is inside this kind of object, it changes to a crosshair with four arrowheads
7. A Button object's name should have this prefix
8. Kind of snap line that indicates that the edges of two objects are vertically aligned
9. Kind of snap line that indicates text within an object is aligned with the text in another object
10. A Label object's name should have this prefix

- |            |        |         |
|------------|--------|---------|
| 1. ANS: A  | PTS: 1 | REF: 34 |
| 2. ANS: E  | PTS: 1 | REF: 36 |
| 3. ANS: F  | PTS: 1 | REF: 38 |
| 4. ANS: B  | PTS: 1 | REF: 38 |
| 5. ANS: D  | PTS: 1 | REF: 40 |
| 6. ANS: G  | PTS: 1 | REF: 57 |
| 7. ANS: J  | PTS: 1 | REF: 67 |
| 8. ANS: C  | PTS: 1 | REF: 72 |
| 9. ANS: I  | PTS: 1 | REF: 73 |
| 10. ANS: H | PTS: 1 | REF: 47 |

## ESSAY

1. What are the methods for placing a .NET component from the Toolbox on the Windows Form object?

ANS:

In addition to dragging a .NET component from the Toolbox to the Windows Form object, you can place an object on the Windows Form object by double-clicking the .NET component in the Toolbox. You can move and resize the object after it has been placed on the Windows Form object. You also can click the .NET component in the Toolbox and then click the Windows Form object at the desired location for the object. The object will be placed where you clicked.

PTS: 1                      REF: 46                      TOP: Critical Thinking

2. Define alignment and explain its significance with regard to PictureBox objects, for example.

ANS:

When designing a graphical user interface, you should consider aligning the elements to create a clean, uncluttered look for the user. Alignment means one element in the GUI is lined up horizontally (left and right) or vertically (up or down) with another element in the window. When you want to align objects already on the Windows Form object, select the objects to align, and then specify the alignment you want. The first object selected is the controlling object; when aligning, this means the other objects that are selected will be aligned on the first object selected.

PTS: 1                      REF: 62                      TOP: Critical Thinking

3. Discuss three methods for opening a saved project.

ANS:

Method 1: Double-click the solution file in the folder in which it is stored. This method will open the solution and allow you to continue your work.

Method 2: With Visual Studio open, click the Open File button on the Standard toolbar, locate the solution file, and open it in the same manner you use for most programs running under the Windows operating system.

Method 3: With Visual Studio open, click File on the menu bar and then point to Recent Projects and Solutions on the File menu. A list of the projects most recently worked on is displayed. Click the name of the project you want to open. This method might not work well if you are using a computer that is not your own because other people's projects might be listed.

PTS: 1                      REF: 75                      TOP: Critical Thinking

## CASE

### Critical Thinking Questions

#### Case 2-1

Professor Mackenzie is answering questions from students in her class as she explains the program development life cycle in her introductory Visual Basic course.

1. Some of her students have been confusing the order of the various steps and phases and she wants to correct any misunderstandings about it. Which of the following can the professor give as the correct order for the steps in the program development life cycle?

a. Gather and analyze the program requirements, design the program processing objects,
--



design the user interface, code the program, document the program/system, test the program, and maintain the program/system
b. Design the user interface, design the program processing objects, gather and analyze the program requirements, code the program, test the program, document the program/system, and maintain the program/system
c. Gather and analyze the program requirements, design the user interface, design the program processing objects, code the program, test the program, document the program/system, and maintain the program/system
d. Gather and analyze the program requirements, code the program, design the user interface, design the program processing objects, test the program, document the program/system, and maintain the program/system

ANS:  
C

PTS: 1                    REF: 75-76

2. When does Professor Mackenzie tell her students that program documentation should occur?

a. As the program requirements are being gathered and analyzed.	c. As the program is being designed and coded, and after that process is completed.
b. Before the user interface and program processing objects are designed	d. After the program has been successfully tested.

ANS:  
B

PTS: 1                    REF: 75

**Critical Thinking Questions**  
**Case 2-2**

You and Ellen are cramming for your exam about the second phase of the program development life cycle, the design of the user interface.

3. As you recount the design principles to Ellen during your study session, which of the following is NOT one that you share with her?

a. If the user interface is too simple to use, the user will not trust that it is sufficiently robust.
b. Use of the interface should feel natural and normal.
c. A good user interface provides the most appropriate object for each requirement.
d. The objects in the interface must be arranged in the sequence in which they are used so the user can move from item to item on the screen in a logical, straightforward manner.

ANS:  
A

PTS: 1                    REF: 79|80

4. Ellen tells you the percentage of program design time that developers spend on the user interface. You think that she is exaggerating but then you double-check and see that she is right. What range does she give you?

a. 25% to 40%	c. 35% to 60%
b. 30% to 50%	d. 40% to 70%

ANS:

A

PTS: 1

REF: 79