## Multiple Choice

1. Which is NOT true about the content awareness design principle?
2. A date of 8/6/09 will be understood internationally
3. Drawing boxes around related items (like name / address / city / state / zip) will help users
4. Field labels should be fairly short, yet with long enough so that users can not be confused
5. Input fields should follow a logical progression that is familiar to users
6. All printed forms should have version numbers for better control

Ans: a

Response: Content Awareness

Difficulty: medium

1. Approximately what percent of men are color blind (and thus improper use of color can impair their ability to read information)
2. 5%
3. 10%
4. 15%
5. 20%
6. More than 20%

Ans: b

Response: Aesthetics

Difficulty: medium

1. Some systems that are used infrequently should probably emphasize:
2. Ease of learning
3. Higher user flexibility
4. Ease of use
5. More short-cut keys and built in keyboard functions
6. Organizational feasibility

Ans: a

Response: Usage Level

Difficulty: medium

1. Which of the following might be a good choice of an icon for saving on a user interface?
2. A piggy bank
3. A dollar sign
4. A computer diskette
5. A hard drive image
6. A green “S”

Ans: c

Response: Consistency

Difficulty: medium

1. When implementing the ‘minimize user effort’ factor, most interface designers follow what rule?
2. Two-clicks rule
3. Three-clicks rule
4. Four-clicks rule
5. User Experience rule
6. The menu option rule

Ans: b

Response: Principles for User Interface Design

Difficulty: medium

1. Typically, the first step in the user interface design process is what?
2. Design interface standards
3. Creating an interface design prototype
4. Do an interface evaluation
5. Examine DFDs and use cases to develop use scenarios
6. Develop the interface structure diagram (ISD)

Ans: d

Response: User Interface Design Process

Difficulty: hard

1. Typically, the second step in the user interface design process is what?
2. Design interface standards
3. Creating an interface design prototype
4. Do an interface evaluation
5. Examine DFDs and use cases to develop use scenarios
6. Develop the interface structure diagram (ISD)

Ans: e

Response: User Interface Design Process

Difficulty: hard

1. Typically, the third step in the user interface design process is what?
2. Design interface standards
3. Creating an interface design prototype
4. Do an interface evaluation
5. Examine DFDs and use cases to develop use scenarios
6. Develop the interface structure diagram (ISD)

Ans: a

Response: User Interface Design Process

Difficulty: hard

1. Typically, the fourth step in the user interface design process is what?
2. Design interface standards
3. Creating an interface design prototype
4. Do an interface evaluation
5. Examine DFDs and use cases to develop use scenarios
6. Develop the interface structure diagram (ISD)

Ans: b

Response: User Interface Design Process

Difficulty: hard

1. Typically, the fifth step in the user interface design process is what?
2. Design interface standards
3. Creating an interface design prototype
4. Do an interface evaluation
5. Examine DFDs and use cases to develop use scenarios
6. Develop the interface structure diagram (ISD)

Ans: c

Response: User Interface Design Process

Difficulty: hard

1. Interface evaluations almost always do what?
2. Identify improvements
3. Are conducted with other analysts in a structured walkthrough
4. Find coding errors
5. Are part of the training and implementation process
6. Cause additional scope creep in the project

Ans: a

Response: User Interface Design Process

Difficulty: medium

1. Which is generally NOT true for interface evaluations?
2. It is iterative
3. It almost always identifies improvements
4. It generally involves users working with analysts
5. It is cyclic
6. It is built on ERDs

Ans: e

Response: User Interface Design Process

Difficulty: medium

1. This is an outline of the steps that the users perform to accomplish some part of their work.
2. Step walkthrough
3. User design flow
4. Use scenario
5. Process model
6. Layout verification

Ans: c

Response: Understand the Users

Difficulty: medium

1. Use scenarios builds upon what?
2. Entity relationship diagrams
3. JAD sessions
4. PERT charts
5. Use cases
6. HIPO charts

Ans: d

Response: Understand the Users

Difficulty: medium

1. A use scenario is one commonly used what?
2. Path through a use case
3. Normalized ERD structure
4. Context diagram
5. Buy-in flowchart
6. Throwaway prototyping tool

Ans: a

Response: Understand the Users

Difficulty: medium

1. This defines the basic components of the interface and how they work together to provide functionality to users.
2. User Scenario plan
3. Layout schema
4. Consistency structure design
5. Interface structure design
6. Completeness diagrams

Ans: d

Response: Organize the Interface

Difficulty: medium

1. In Use Scenario Development, the goal is:
2. To describe all possible use scenarios within a use case
3. To describe the most commonly occurring use scenarios
4. To accurately model all possible DFDs
5. To give complex and complete narrative descriptions of all scenarios
6. To effectively model all data flows and data models

Ans: b

Response: Understand the Users

Difficulty: medium

1. This defines the basic components of the interface and how they work together to provide functionality to users.
2. Use Scenario Design
3. Interface Standards Design
4. Interface Metaphor
5. Interface Structure Design
6. Interface Template Design

Ans: d

Response: Organize the Interface

Difficulty: hard

1. The objective of an interface evaluation is what?
2. To measure the processing speed of an interface design
3. To determine the database processing requirements for an interface
4. To understand how to improve the interface design
5. To get users input on colors, menu names and flexibility
6. To determine if all use cases and ERDs have been built into the interface

Ans: c

Response: Interface Evaluation/Testing

Difficulty: medium

1. Which of the following is NOT a common Interface Evaluation technique?
2. Interactive evaluation
3. Walk-through evaluation
4. Heuristic evaluation
5. Use scenario normalization
6. Formal usability testing

Ans: d

Response: Interface Evaluation/Testing

Difficulty: hard

1. When designing navigational controls, which is NOT commonly assumed?
2. That users have not read the manual
3. That users have not attended training
4. That users do not have help readily at hand
5. That users have knowledge of the system and the interface
6. That users have not read the documentation

Ans: d

Response: Navigation Design

Difficulty: medium

1. The first principle of designing navigation controls is what?
2. It was tough to build, it should be tough to use
3. Users have attended training
4. To prevent users from making mistakes
5. See that all screens can be reached in the four-click rule
6. Build appropriate icons (like a blank page for new document or form)

Ans: c

Response: Navigation Design

Difficulty: medium

1. Which of the following is NOT a suggestion for preventing mistakes?
2. Label commands and actions appropriately
3. Place menu items in alphabetical order
4. Limiting choices
5. Gray-out commands that cannot be used
6. Create secondary menus when there are many similar choices on a menu

Ans: b

Response: Navigation Design

Difficulty: medium

1. One strong suggestion for navigation design is what?
2. Limit menu items to at most ten items
3. Color code common menu items with green (go) and red (stop)
4. Simplify recovery from mistakes (like having an undo button)
5. Lock the user’s computer when a mistake has been made
6. Log all mistakes, and log the user’s computer when 1000 mistakes have been made

Ans: c

Response: Navigation Design

Difficulty: medium

1. It is better to make menus how?
2. Broad and shallow
3. Narrow and deep
4. Broad and deep
5. Narrow and shallow
6. Wide and tall

Ans: a

Response: Menu Tips

Difficulty: medium

1. This is used when several fields must be entered before the form can be processed.
2. Completeness check
3. Format check
4. Range check
5. Check digit check
6. Consistency check

Ans: a

Response: Input Validation

Difficulty: medium

1. This is used when fields are numeric or contain coded data.
2. Completeness check
3. Format check
4. Range check
5. Check digit check
6. Consistency check

Ans: b

Response: Input Validation

Difficulty: medium

1. This is used when you want to verify that data fits within correct minimum and maximum values.
2. Completeness check
3. Format check
4. Range check
5. Check digit check
6. Consistency check

Ans: c

Response: Input Validation

Difficulty: medium

1. This is used when an extra digit is added to a coded field to make sure it the entered data is correct (like Social Security numbers).
2. Completeness check
3. Format check
4. Range check
5. Check digit check
6. Consistency check

Ans: d

Response: Input Validation

Difficulty: medium

1. This is used when all combinations of data are valid (like birth year is prior to marriage year).
2. Completeness check
3. Format check
4. Range check
5. Check digit check
6. Consistency check

Ans: e

Response: Input Validation

Difficulty: medium

1. There are many types of reports, they include which of the following?
2. Summary reports
3. Exception reports
4. Turnaround documents
5. Graphs
6. All of these are outputs

Ans: e

Response: Types of Output

Difficulty: easy

1. This report is used when a user needs brief information on many items.
2. Detail Report
3. Turnaround document
4. Exception report
5. Summary report
6. Consistency check

Ans: d

Response: Types of Output (Figure 8-22)

Difficulty: medium

1. This output is poor at helping users recognize precise numeric values and should be replaced by tables when precision is important.
2. Detail report
3. Summary report
4. Graphs
5. Turnaround document
6. None are poor

Ans: c

Response: Types of Output (Figure 8-22)

Difficulty: medium

1. The following is used as a main menu for a system.
2. Menu bar
3. Drop-down menu
4. Hyperlink menu
5. Pop-up menu
6. Tab menu

Ans: a

Response: Types of Menus (Figure 8-16)

Difficulty: easy

1. The following is used as a second-level menu, often from a menu bar.
2. Menu bar
3. Drop-down menu
4. Hyperlink menu
5. Pop-up menu
6. Tab menu

Ans: b

Response: Types of Menus (Figure 8-16)

Difficulty: easy

1. The following is used as a main menu for a Web-based system.
2. Menu bar
3. Drop-down menu
4. Hyperlink menu
5. Pop-up menu
6. Tab menu

Ans: c

Response: Types of Menus (Figure 8-16)

Difficulty: easy

1. The following is used as a shortcut to commands for experienced users.
2. Menu bar
3. Drop-down menu
4. Hyperlink menu
5. Pop-up menu
6. Tab menu

Ans: d

Response: Types of Menus (Figure 8-16)

Difficulty: easy

1. The following is used when the user needs to change several settings or perform several related commands.
2. Menu bar
3. Drop-down menu
4. Hyperlink menu
5. Pop-up menu
6. Tab menu

Ans: e

Response: Types of Menus (Figure 8-16)

Difficulty: easy

1. Informs the user that he or she has attempted to do something to which the system cannot respond.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: a

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Asks the user to verify that he or she really wants to perform the action selected.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: b

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Informs the user that the system has accomplished what it was asked to do.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: c

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Informs the user that the computer system is working properly to perform a task that may take several seconds.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: d

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Provides additional information about the system and its components.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: e

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Used when user does something that is not permitted or not possible.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: a

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Used when user selects a potentially dangerous choice, such as deleting a file.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: b

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Seldom or never used.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: c

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Used when an activity takes more than seven seconds.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: d

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Used in all systems.
2. Error message
3. Confirmation message
4. Acknowledgment message
5. Delay message
6. Help message

Ans: e

Response: Types of Messages (Figure 8-17)

Difficulty: easy

1. Presents a complete list of choices, each with a square box in front.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: a

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Presents a complete list of mutually exclusive choices, each with a circle in front.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: b

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Presents a list of choices in a box.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: c

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Displays selected item in one-line box that opens to reveal list of choices.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: d

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Scroll arrows moves directionally through numeric range.
2. Up-down numeric control
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: a

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. A special type of drop-down list box that permits user to type as well as scroll the list.
2. Up-down numeric control
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: e

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Used when several items can be selected from a list of items.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: a

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Used when only one item can be selected from a set of mutually exclusive items.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: b

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Used seldom or never—only if there is insufficient room for check boxes or radio buttons
2. Up-down numeric control
3. Half-sized radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: c

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Used when there is insufficient room to display all choices.
2. Check box selection list
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: d

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Used as a shortcut for experienced Users.
2. Up-down numeric control
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: e

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Used when entering a numeric value.
2. Up-down numeric control
3. Radio button selection list
4. On-screen selection list
5. Drop-down selection list
6. Combo box selection list

Ans: a

Response: Types of Selection Controls (Figure 8-19)

Difficulty: easy

1. Ensures that all required data have been entered.
2. Completeness check
3. Format check
4. Range check
5. Consistency checks
6. Database checks

Ans: a

Response: Types of Input Validation (Figure 8-20)

Difficulty: easy

1. Ensures that data are of the right type (e.g., numeric) and in the right format (e.g., month, day, year).
2. Completeness check
3. Format check
4. Range check
5. Consistency checks
6. Database checks

Ans: b

Response: Types of Input Validation (Figure 8-20)

Difficulty: easy

1. Ensures that numeric data are within correct minimum and maximum values.
2. Completeness check
3. Format check
4. Range check
5. Consistency checks
6. Database checks

Ans: c

Response: Types of Input Validation (Figure 8-20)

Difficulty: easy

1. Ensure that combinations of data are valid.
2. Completeness check
3. Format check
4. Range check
5. Consistency checks
6. Database checks

Ans: d

Response: Types of Input Validation (Figure 8-20)

Difficulty: easy

1. Compare data against a data base (or file) to ensure that they are correct.
2. Completeness check
3. Format check
4. Range check
5. Consistency checks
6. Database checks

Ans: e

Response: Types of Input Validation (Figure 8-20)

Difficulty: easy

## True / False

1. Forms should have version numbers so that users, analysts and programmers can identify outdated materials.

Ans: True

Response: Content Awareness

Difficulty: medium

1. Aesthetics refers to designing information that can be navigated in three-clicks or less.

Ans: False

Response: Aesthetics

Difficulty: medium

1. Space is generally at a premium on forms and reports, thus squeezing information onto forms is considered a wise business decision.

Ans: False

Response: Aesthetics

Difficulty: medium

1. If the density on a single page form is too high, it might not be as effective for some users as creating a two-page form.

Ans: True

Response: Aesthetics

Difficulty: medium

1. Novice or infrequent users of an interface (both paper and screen) prefer interfaces with low density like under 25%.

Ans: False

Response: Aesthetics

Difficulty: medium

1. Generally, headings on a paper form should be with Arial size 24 bold; the main text should be Times New Roman size 12. Subheadings should be Tahoma size 14, bold and italic and underlined. This makes a form easier to read and to delineate sections.

Ans: False

Response: Aesthetics

Difficulty: medium

1. Omar has designed a paper form using ‘sans serif’ fonts and for his screen (or web) forms he has used ‘serif’ fonts. He is exercising good user interface design practices.

Ans: False

Response: Aesthetics

Difficulty: medium

1. For screen forms and reports, you should use a font of at least size 12.

Ans: True

Response: Aesthetics

Difficulty: medium

1. Colors and patterns add pizzazz to a screen form and aid in its readability.

Ans: False

Response: Aesthetics

Difficulty: medium

1. User experience refers to minimizing the number of clicks or commands to go from one field to another.

Ans: False

Response: Principles for User Interface Design

Difficulty: medium

1. Infrequent users prefer user interfaces with ‘ease of learning’ features (like more explicit menu choices, clear directions).

Ans: True

Response: Usage Level

Difficulty: medium

1. Experienced users prefer user interfaces with ‘ease of learning’ features.

Ans: False

Response: Usage Level

Difficulty: medium

1. If a particular form or screen is used by a cadre of experienced users very frequently (like an accounting entry system), ‘ease of use’ should be a high priority on these system interfaces.

Ans: True

Response: Usage Level

Difficulty: medium

1. Bob is designing input screens for a re-designed system for the shipping and inventory department. For order forms, he puts Zip code first (as the database will take the zip code and look up the city and state); for receiving forms, he puts them in the order of city, then state, then zip code. His design choices will help experienced users be more productive.

Ans: False

Response: Consistency

Difficulty: medium

1. At least one study suggests that *some* variation be appropriate in user interface design as the study suggests that when all forms tend to look the same, it can be confusing to some users.

Ans: True

Response: Consistency

Difficulty: medium

1. User interface design is a three-step process: (1) analyze the DFDs and use cases; (2) develop the interface diagrams; and (3) create the interface design prototype.

Ans: False

Response: User Interface Design Process

Difficulty: medium

1. When creating user interfaces, analysts should examine DFDs and use cases to see how users commonly perform various processes.

Ans: True

Response: User Interface Design Process

Difficulty: medium

1. Michelle is designing a series of user interfaces for a CRM system. She goes back and forth between various steps of use cases, DFDs, ERDs and JAD session notes.

Ans: False

Response: User Interface Design Process

Difficulty: hard

1. Mike is the analyst creating a report. It is easy for him to unintentionally create a biased report.

Ans: True

Response: Output Design

Difficulty: easy

1. Bias can be introduced into a report by the way in which lists of data are sorted.

Ans: True

Response: Output Design

Difficulty: easy

1. Interface Structure Design defines the application coding structure used (such as developing prototypes in Visual Basic).

Ans: False

Response: Organize the Interface

Difficulty: medium

1. Interface Structures cannot directly interface with other interface structures on other menus and submenus, only the interface structures on the same menu or submenu.

Ans: False

Response: Organize the Interface

Difficulty: hard

1. The first principle of designing navigational controls is to prevent users from making mistakes.

Ans: True

Response: Navigation Design

Difficulty: medium

1. When creating navigational controls, you should either not display a command that cannot be used or ‘gray’ it out (where it shows, but cannot be used).

Ans: True

Response: Navigation Design

Difficulty: medium

1. Jamal is creating a user interface. He wants what he calls an ‘oops’ button on every screen and form (or an ‘undo’ button). This is a good design consideration.

Ans: True

Response: Navigation Design

Difficulty: medium

1. Research shows that in an ideal world a menu should contain no more than four items and submenus should contain no fewer than six items.

Ans: False

Response: Menu Tips

Difficulty: medium

1. Range checks will validate if the data is numeric with two decimal places.

Ans: False

Response: Output Design (Figure 8-20)

Difficulty: medium

## Essays

1. United Pharmacy is a major pharmaceutical company in Mobile Alabama. They want to go ‘on-line’ with an e-commerce pharmacy. Obviously, a lot of time and effort has gone into planning and analysis. They are working on the web user interface currently. They are considering the standard ‘shopping cart’ icon and metaphor. What others might they consider?

Answer

Answers will vary. The advantage of the shopping cart icon / metaphor is that it is more-and-more a standard in the e-commerce area. They might consider a shopping ‘bag’, a ‘box’ or some other alternative, but users have come to expect a shopping ‘cart’.

Response: Define Standards

Difficulty: medium

1. United Pharmacy is a major pharmaceutical company in Mobile Alabama. They want to go ‘on-line’ with an e-commerce pharmacy. For patients ordering medications online, they need to capture the medication name (like Zocor). Why should they NOT use a text box for this?

Answer

Text boxes could lead to strange spellings (especially for drug names that might be hard to spell). The best might be for the patient to indicate what the medicine is for (like cholesterol or high blood pressure) and then take them to a screen with all the various medications for that problem (so all cholesterol medicines would be listed). It might be good to have a combo box as a doctor might prescribe some new medication (that is not on the list-box menu).

Response: Entering Text

Difficulty: hard

1. On the United Pharmacy online prescription system, the users want to build in some safeguards (like the user’s order too large of a quantity). If a user orders (say) 500 pills of a prescription, and the limit is 100, what kinds of processing might occur?

Answer

To handle an error like this, an error message should occur (like indicating that the maximum quantity is 100, a code (for potential debugging) is listed and the user needs to check an “ok” button to acknowledge the error. After the message clears, the prompt should be back in the order quantity area.

Response: Message Tips

Difficulty: medium

1. Roger has coded an error message for the online prescription ordering system for United Pharmacy. His message has tried to be ‘light’ and says “Hey – you can’t do that – go back and change the quantity ordered”. Is this a good error message? Why or why not?

Answer

No, that is not a good error message; humor should be either avoided or used sparingly. His message should be clearer.

Response: Message Tips

Difficulty: medium

1. An accountant likes to check a lot of specific accounts and records. What type of report might work best here – and why?

Ans: Detailed report – all records (or appropriate records)

Response: Types of Outputs

Difficulty: easy

1. The online prescription order system for United Pharmacy has over twenty different forms and screens. What might be the most important design factor – and why?

Answer

Consistency is the main key here. With several forms and screen, users will want common navigation options, status lines, indications of where data is to be entered, common layout, and overall consistency in all items. (Also ease of learning.)

Response: Consistency

Difficulty: medium

1. Research has shown that many detailed paper reports are not read thoroughly, not read at all, or only scanned. What should analysts do to verify the use of output reports?

Answer

Analysts should work closely with users to understand their information need. If a detailed report is used daily (observation might help), then a detailed report would be good; if a report is only scanned, maybe a summary report would work best.

Response: Types of Outputs

Difficulty: medium

1. The payroll adjustment system is only used by experienced payroll clerks. In terms of the user interface design, what principles might be affected such a system?

Answer

The user experience principle would point towards “ease of use”, with various short-cuts provided to enable ‘speed use’ of the forms and systems.

Response: Principles for User Interface Design

Difficulty: medium