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Department of Computer Science
College of Engineering, University of Nevada, Reno

CS 420 / CS 620 Human Computer Interaction

Midterm Test #2

November 19, 2008

Test type: Closed-book examination
Number of questions: 12 for CS 420; and 13 for CS 620
Total points: 34 for CS 420; and 37 for CS 620
Test weight: 17% for CS 420; and 16% for CS 620
Time: 70 minutes

- Notes:**
- For questions **1 to 7** indicate the correct answer (only one) on the answer sheets provided by the instructor. Each of the questions **1 to 7** has a one point value for a group total of **7** points.
 - Questions **8 to 13** require that you elaborate your answers. You must also write these answers on the sheets provided by the instructor. Note that **Question 13** should be answered by CS 620 students only.

Questions:

- 1** Which of the following is not a *principle for interaction design*?
- Utility
 - Stability
 - Maintenability
 - Flexibility
- [1 point]
- 2** Which of the following is a *interaction design principle* that “involves a person’s expectations and ability to determine the results of his or her actions ahead of time”?
- Safety
 - Predictability
 - Visibility
 - Memorability
- [1 point]
- 3** The *golden ratio* refers to “a relationship between two parameters describing a form such as height and width is expressed through a ratio that is equal to”:
- 0.618
 - 1.414
 - 0.375
 - 0.707
- [1 point]
- 4** What is the main purpose of a *usability test*?
- Explore the interaction between a participant and a design
 - Validate the architectural design of a product
 - Determine the value of a product for pricing purposes
 - Eliminate errors in the user manual
- [1 point]

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- 5** Which of the following statement best applies to the interface components called *panes*?
- Provide visual grouping for related functionality
 - Let users see which windows are open
 - Inform the user about system states
 - Provide a container for related, secondary functionality
- [1 point]
- 6** Which of the following factors affect *color perception*?
- Fatigue
 - Age
 - Culture
 - All of the above
- [1 point]
- 7** Which of the following is false about *icons*?
- Can save screen real estate
 - Humans respond first to the semantic associations of the icons
 - Are better than text on terms of recognition and recall
 - Have no meaning without context
- [1 point]
- 8** Briefly explain what is meant by the “80/20 Rule” used in connection with the interaction design principle of simplicity (4 - 6 lines).
- [3 points]
- 9** Indicate the advantages and disadvantages of *usability testing*. Also, briefly describe three constraints that might be imposed on the usability tests that one can perform (2-3 lines each).
- [6 points]
- 10** Briefly describe what are *dialogue boxes*, concisely explain the difference between *modal* and *modeless* dialogues, and enumerate 3 purposes for which dialogue purposes can be used.
- [6 points]
- 11** Briefly describe what is meant by, respectively, *multiple document interface*, *single document interface*, and *tabbed document interface* (3-5 lines each).
- [6 points]
- 12** Indicate a software tool that you use frequently and which contains a significant set of *icons*. Briefly explain how you use the tool and comment on whether its set of icons is well designed. Indicate at least 3 icons that you find really useful. Suggest also 2 new icons that can be added to the tool’s existing set.
- [6 points]
- 13** [FOR CS 620 STUDENTS ONLY] Briefly list the advantages and the disadvantages of *multiple document interfaces*.
- [3 points]