HCI Test 2   Name _____

October 24, 2006.
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Closed Book, Closed Note [est 45-70 min]

1. [12 points] List 6 "heuristic evaluation" principles or guidelines or checklist items.

2. [2 pts] Describe the main idea of the "Listening to Maps".

3. [14 pts] State the meanings of the following in Unix
    a. *
    b. ..
    c. |
    d. ls –a
    e. ls –l
    f. rmdir
    g. rm
    h. >
    i. more (or less)
    j. grep
    k. cat
    l. pwd
    m. man
    n. chmod

4. [12] Marti has come up with the following prototype for a freeware alarm clock (which her boss intends to exploit as a way to deliver spyware, but that's beside the point here). Using any methods you like, identify 4 likely usability problems.

5. [4] Which of the following would be a good sideline for a usability consulting firm:
    a. ergonomics
    b. advertising
    c. verification and validation
    d. design of system architecture
    e. financial planning
    f. unit testing
    g. market analysis
    h. project scheduling
    i. graphic design

6. [6] Briefly explain the "think-aloud method", and its advantages and disadvantages

7. [4] Rewrite the following error messages (designed for a freeware alarm clock).
    a. "Invalid time specification." (for example, if the user enters 15:10)

    b. "Error: message/sound not set; exit aborted" (for example, if the user fails to specify an action before exiting)

8. [6 pts] List 3 questions to ask at each step of a cognitive walkthrough.

9. [12] Briefly define

    a. widget

    b. prototype

    c. hotspot

    d. dialog box

    e. palette

    f. wizard

9. [3 pts] True or False:
    a. You can do a heuristic evaluation using a prototype, even before the system is built.
    b. You can do a cognitive walkthrough using a prototype, even before the system is built.
    c. If you have a checklist of common usability problems, and are experienced at using them for heuristic evaluation, then there is no need to do usability studies with actual users.

10. [10] What widget would you use to
    a. notify the user of something requiring immediate attention

    b. let the user set a numeric value between 0 and 100

    c. let the user launch a new window or sub-window

    d. let the user select among 7 possible actions

    e. let the user select among 7 possible values

11. [12 pts] The owner of an online shoestore wants you to redesign her web site. She is happy with the back-end (the interface to the databases), and doesn't want to change it. However she has had complaints from customers saying they "can't find anything" and "get lost" on the site. Before she hires a designer, she wants a usability report to tell the designer what needs to be fixed.

The owner has never worked with a usability expert before, but she has read a little about what they do. She thinks maybe she needs some
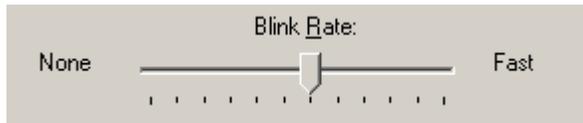
      i. "evaluation based on usability guidelines"
      ii.   "GOMS analysis"
      iii.   "observation of users"
      iv.   "prototype-building and evaluation"

1. If she can afford $500 for your work, state which of i-iv you would do, and briefly why.

2. Now suppose she is willing to pay you $5000

3. Now suppose she is prepared to pay you $50,000

12. [5] In visual basic, each widget you instantiate has an associated code template which you can edit. These differ, depending on the widget (e.g. a textbox versus a button versus a slider). Why?

13. [12] In a certain slider widget, if the user clicks on the pentagon, it turns white and he can drag it. If the user clicks elsewhere within the widget, the pentagon jumps to the closest legal position to place he clicked.

Blink Rate:

None ——————————⬇—————— Fast

A common transition diagram notation has the events and actions on the arcs (sometimes the actions are drawn on the nodes, but in this example we'll put the actions on the arcs). The text before the slash indicates the input event that causes the transition; the text after the slash indicates what actions occur, and the text in the nodes is just comments. Here is most of a transition diagram for the above slider.

a.   Complete it by filling in the boxes.

b.   Extend the diagram to describe a widget that also correctly responds to arrow-key input.