

CS160 Spring 2006 Midterm

NAME _____ SID _____

This is a closed-book exam with 3 parts. Please write all your answers in this booklet. There is a total of 70 points, and you should be able to finish the exam in 70 minutes. The time spent on each questions should be equal to its point value.

Part I: Short-Answer Questions (30 points)

Give short answers to the following questions:

1. When using personae, how many personae should you use (exact number not required)? How should you select them? [3 points]

2. Explain “build and jump” in a brainstorming session [2 points]

3. What is a “devil’s advocate”? [2 points]

4. Why is it important for designers *not* to innovate sometimes? [2 points]

5. What are the three key steps in the iterative, user-centered design process? [3 points]

6. List 4 typical task analysis questions: [2 points]

7. Explain the principles of “partnership” and “interpretation” in contextual inquiry [4 points]

8. List two advantages of low-fidelity prototypes [2 points]

9. List two dis-advantages of high-fidelity prototypes [2 points]

10. How can you encourage constructive conflict in a design team? [2 points]

11. During a user test with the Wizard-of-Oz method, the design team members assume different roles. List them. [4 points]

12. When doing mobile evaluation, what are diary studies and experience sampling? [2 points]

Part II: Heuristic Evaluation (20 points)

Describe ten usability problems in the UI shown on the next page. Label each violation with a number from 1 to 10 on the figure. Then make a list in the space below which is indexed by those numbers. Each entry should include the Heuristic from the list below that has been violated. You must also explain the violation in words. Finally you should suggest a solution for each of these problems. Use Nielsen's second set of heuristics below to label each violation. Remember to list each violation separately. Remember: If the same violation occurs in multiple places, it is still one violation. But the same interface element may cause several violations.

HEURISTIC POINT BREAKDOWN:

1 points for "labeling each violation with a number on the figure"

20 points for the ten violations

Reference: Nielson's Revised Set of Ten Usability Heuristics

H2-1: Visibility of system status

H2-2: Match between system and the real world

H2-3: User control and freedom

H2-4: Consistency and standards

H2-5: Error prevention

H2-6: Recognition rather than recall

H2-7: Flexibility and efficiency of use

H2-8: Aesthetic and minimalist design

H2-9: Help users recognize, diagnose, and recover from errors

H2-10: Help and documentation

Write your heuristic evaluation problems here (and on the back of this page):



Dance *Maniac*

The app that helps you bust a move, not your leg

Enter your dance ability (from 1 to 5) here:

Now enter your real ability here:

How many steps per second do you prefer (1-1000)?

Select a performer from the following list:

<input type="radio"/>	The Dancing Scorpions
<input checked="" type="radio"/>	The Dancing Scorpions
<input type="radio"/>	Madonna
<input type="radio"/>	The Dancing Scorpions

Enter your selected performer's song to dance to:

The music will begin after you selection is loaded...

If you would like to purchase medical coverage, please click on one of the logos below



Part III: UI Scenario and Sketch (20 points)

You have been asked to design a mobile interface for carpooling. Your application should allow riders to post their requested destination and pick-up location, and for drivers to find riders who are on their route and have a similar destination. Consider the two tasks below:

- (a) A rider posts a ride request. It should include both their start and destination addresses, and their ideal arrival time.
- (b) Assume the driver has posted the same information as above for their own route. They are then shown a list of possible pickups, and should select whether to pick those users up or not.

Create scenarios for each task, and show the sequences of screens for each with sketches. [10 points each]

Part III (continued)