

CS-428+828 Midterm Exam
October 21, 2022, 9:30 – 10:20, ED388
D. Hepting

This is a closed book exam. You must maintain the confidentiality of your examination; do not provide any opportunity for others to copy any of your work. Electronic devices are NOT permitted during the exam. Please turn off and put away all cell phones and other electronic devices during the exam period.

ANSWER ALL QUESTIONS. *All answers must be written on this exam in the space provided.* You have 50 minutes to complete the exam. Please plan your answers, favour quality over quantity, do not exceed the space provided, and do your best to write legibly. QUESTIONS ARE ON BOTH SIDES OF THE PAPER. This exam contributes 8 percent towards your final grade. The exam is marked out of 20.

Name (printed): _____

Signature: _____

Q1. (2 marks) Give one example of a tradeoff in design and explain it.

Q2. (2 marks) Can you design a user's mental model of your software? Can you influence it? [Fill in circle beside best answer]:

- | | |
|--|--|
| a) <input type="radio"/> Yes, can design; yes, can influence | c) <input type="radio"/> Yes, can design; no, cannot influence |
| b) <input type="radio"/> Yes, can influence; no, cannot design | d) <input type="radio"/> No, cannot influence; no, cannot design |

Q3. (4 marks) What are the 4 quadrants of an empathy map? Indicate if each deals with user experience OR usability.

Quadrant 1	Quadrant 2
Quadrant 3	Quadrant 4

Q4. (2 marks) Give an example of an exam question that uses recall rather than recognition. Is it preferable?

Q5. (2 marks) Is a Norman Door good or bad? Why?

Q6. (2 marks) Why is the marble answering machine important?

1. **What is the primary purpose of the proposed legislation?**

2. **How will the proposed legislation affect the current regulations?**

3. **What are the potential consequences for non-compliance with the proposed legislation?**

4. **How will the proposed legislation impact the industry's operations and costs?**

5. **What are the key provisions of the proposed legislation?**

6. **How will the proposed legislation be enforced?**

7. **What is the timeline for the proposed legislation to take effect?**

8. **What are the potential benefits of the proposed legislation?**

9. **What are the potential risks associated with the proposed legislation?**

10. **What is the proposed budget for the implementation of the legislation?**

Q7. (2 marks) Thinking of the UR Courses Attendance module, what are 2 different interface metaphors that could help users to understand its capabilities? Briefly explain each.

Q8. (4 marks) Consider Nielsen's 10 Usability Heuristics for User Interface Design (listed below) and how they relate to the Gulfs of Execution and Evaluation. Choose 2 heuristics that address each of the Gulfs (for a total of 4 heuristics) and briefly explain their impacts.

1. Visibility of system status
 2. Match between system and the real world
 3. User control and freedom
 4. Consistency and standards
 5. Error prevention
 6. Recognition rather than recall
 7. Flexibility and efficiency of use
 8. Aesthetic and minimalist design
 9. Help users recognize, diagnose, and recover from errors
 10. Help and documentation