## CS 428/828 Final Exam : D. Hepting December 13, 2016, 09:00–12:00, CL312

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 180 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. YOU MAY USE THE LAST 2 PAGES FOR ROUGH WORK.

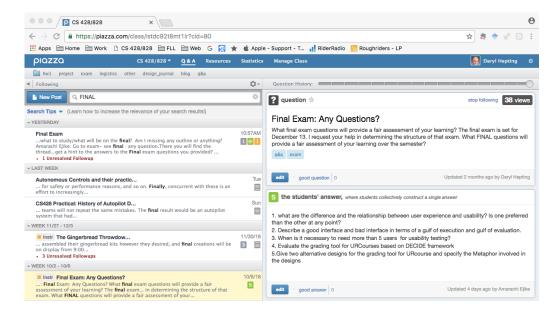
This exam contributes 25 percent towards your final grade. Q1-Q16: 2 marks each (32 marks total); Q17 and Q18: 20 marks each: the exam will be graded out of 65. Name (printed): Student Number: \_\_\_ \_\_ --- \_\_\_ --- \_\_\_ \_\_ \*\*\* Q1. What is the difference between an error and a slip? Q2. Explain whether "touch the snake" was an appropriate motto for the course this semester. Q3. What is the impact of structuring the space for you to write your student number (above). Does it make it easier or harder to write your student number?

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| Q4. Explain an aspect of this cours                                | e that you learned through your project wo                          | rk                              |
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| Q5. What is the gulf of execution?                                 |   |                                 |
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| Q6. In terms of the gulfs between t                                | he user and the computer, what is the purpo                         | ose of information design?      |
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| Q7. How does Malcolm Gladwell's that there may be many perfect pic | s assertion (from his TED video) that "there kles" apply to design? | e isn't one perfect pickle, but |
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| Q8. When would you use low-fide                                    | lity and high-fidelity prototypes and why?                          |                                 |
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| Q9. How would you go about designing an interface to be used by middle school kids? |   |              |  |  |
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| Q10. Why is an "early focus on us   | ers and tasks" important in a user-centered approach? |              |  |  |
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| Q11. What is a tradeoff when gath   | ering data from users in the field?                   |              |  |  |
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| Q12. How did Tim Brown describ  | e design thinking?                                    |              |  |  |
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| Q13. How do requirements differ   | from design?  |              |  |  |
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| Q14. What is a mental model and can a designer create one for a user?   |
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| Q15. What is a tradeoff in using a very specific metaphor?  |
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| Q16. Relate the concepts of formative and summative evaluation to the exams that we have written this semester. |
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- Q17. Analyze the piazza.com interface in terms of the Nielsen's 10 Usability Heuristics for User Interface Design (listed below):
  - 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



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