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

CS 420 / CS 620 Human Computer Interaction

Midterm Test #1

October 15, 2008

Test type: Closed-book examination
Number of questions: 12 for CS 420; and 13 for CS 620
Total points: 33 for CS 420; and 36 for CS 620
Test weight: 16% for CS 420; and 15% 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 device illustrates the *mobile computing* paradigm?
- Tablet computers
 - Game players
 - Cell phones
 - All of the above
- [1 point]
- 2** Which of the following is a not an *interaction style*?
- Web navigation
 - Three dimensional environments
 - Collaborative environments
 - Command line
- [1 point]
- 3** Which of the following is an *I/O device for immersive virtual reality*?
- Joystick
 - Mouse
 - Head mounted display
 - None of the above
- [1 point]
- 4** Which of the following is a *tool involved in conceptual design*?
- Card sort
 - Personas
 - Flowcharts
 - All of the above
- [1 point]

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- 5** Which is the main advantage of the *card sort* technique?
- They are easy to navigate when adding more categories
 - They expose underlying structures
 - They only involve elements written on the cards
 - They suggest solutions that imply structures
- [1 point]
- 6** *Personas* are:
- Archetypes of actual users
 - Actors in use cases
 - Cartoon characters
 - Profiles of stakeholders
- [1 point]
- 7** Which of the following is the main disadvantage of the *waterfall model*?
- Disciplined process of documentation
 - Makes assumptions about requirements that are inflexible
 - Places design at the beginning of the process
 - None of the above
- [1 point]
- 8** Briefly explain what is meant by *embodied virtuality* (4 - 6 lines). [3 points]
- 9** Indicate the advantages and disadvantages of the *Natural Language* interaction style. Also, briefly describe two applications for this interaction style (2-3 lines for each application). [6 points]
- 10** Describe what is meant by *focus groups* and indicate their advantages and disadvantages. [5 points]
- 11** Describe the *Discount Usability Engineering* interaction design process. [6 points]
- 12** Indicate 5 of Nielsen's 10 *heuristics for evaluation* and use them to analyze one of your preferred software tools (indicate the tool, briefly explain how you use it, name the heuristics, and write 2-4 lines of tool analysis for each heuristic). [6 points]
- 13** [FOR CS 620 STUDENTS ONLY] Briefly list the advantages and the disadvantages of *paper prototyping*. [3 points]