**CS 4331 and CS 5331 Human Computer Interaction - Spring 2021**

**Final Exam (05/11/2021)**

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| **Student Name: (First Last)** |
| **Final Score: (Total: 40 points)** |

**General Instructions:**

* The maximum is 40 points, equivalent to 40% of your final score.
* There are **20** questions over **1** page.
* This is a **80**-minute closed-book and closed-note exam.
* Please explain your answer clearly and be concise. **Please make sure your handwriting is readable**.
* Submit a copy (images in the **correct** order) of your answers via email to **tommy.dang@ttu.edu**
* Good luck.

*Question 1:* **(3 points)**

What are Affordances in designs? Can you provide two examples of Affordances for Form Filling?

*Question 2:* **(2 points)**

Please list two suggestions for “Designing for error”?

*Question 3:* **(2 points)**

Please explain the Diversity of users’ profiles in **age**. Why is it important to consider theDiversity of user **age** in designing User Interfaces (UI)?

*Question 4:* **(2 points)**

Please explain choosing **'atomic' actions** for the tasks? What issues can cause if the actions are not **'atomic'**?

*Question 5:* **(2 points)**

Select two UI interaction styles and discuss their pros and cons.

*Question 6:* **(2 points)**

In Golden rules of interface design, one of the rules is “Design dialogues to yield closure”. Please explain this rule on the web interface with examples.

*Question 7:* **(2 points)**

In Golden rules of interface design, one of the rules is “Offer error prevention and simple error handling”. Please explain this rule on Form Filling for web applications.

*Question 8:* **(2 points)**

In Golden rules of interface design, one of the rules is “Strive for consistency”. Please two examples of your choices for **inconsistency** in the web applications.

*Question 9:* **(2 points)**

Please describe dissociative variables in visual communications.

*Question 10:* **(2 points)**

In the Human processor model, how many processors are there? Please explain the role of each processor.

*Question 11:* **(2 points)**

What are the recommended font styles for web interfaces? Describe when it is appropriate to use these font styles.

*Question 12:* **(2 points)**

For Form Filling in the web application, how can we make the expected format of **telephone numbers** obvious in the form.

*Question 13:* **(2 points)**

Please provide one example of problems due to Color blindness when using UI.

*Question 14:* **(2 points)**

The color of a focused item can depend on surrounding colors. Is this true? Please justify your answer.

*Question 15:* **(2 points)**

One of the common design errors is insufficient contrast. Please explain this error and what problems it can cause.

*Question 16:* **(2 points)**

The optical adjustment technique suggests extending elements beyond the margin. What could be the issue if we don’t follow this suggestion in designing icons for UIs.

*Question 17:* **(2 points)**

What is the role of negative space in designing interfaces?

*Question 18:* **(2 points)**

What is the difference between Qualitative vs. Quantitative evaluations?

*Question 19:* **(1 point)**

What is the minimal number of subjects in a controlled experiment?

*Question 20:* **(2 points)**

Why do we need grid layouts in interface design?

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