

CMSC434: Introduction to Human-Computer Interaction

Exam #1 - February 24, 2004 Length: 75 minutes – Total points: 100

(The grader reserves the right to take off up to 3 points for poor handwriting ... so write neat!).

1. Describe three populations of users with special needs. For each of these populations, suggest three ways current interfaces could be improved to better serve them. **(18 points)**

2. Examine the following interface:

Prescription Refill Service

PRESCRIPTION REFILL SERVICE

Your name:

Date: **

Prescription Refill Service

Doctors Name: Dr.

Medicine Name:

- Prozac
- Claritan
- Allegra D
- Singulair
- Propecia
- Viagra
- Paxil

** Use MM/DD/YYYY

Submit!

a) Describe five things wrong with the interface on the left. **(10 points)**

b) Name two of the Eight Golden Rules that have been violated by this interface. Give a brief explanation of those rules. **(6 points)**

3. a) Describe the four principles of direct manipulation. **(4 points)**

b) Name two ways you could update the interface in Question 2 to support these principles. Draw a sketch of your redesign in your answer book. **(10 points)**

4. A new start-up, DTUI Inc., is designing a system for hospitals that will allow receptionists to check in people at the hospital faster. They wish to develop an interface that meets both the receptionist and patient's needs. Describe in detail a design methodology of 4-8 stages to facilitate proper design of such a system. Be sure to include early stage data gathering, design processes, user testing, and final stage issues.

Write your answer in the form of a management plan for this project. For each stage, indicate the number of weeks that should be allocated. **(30 points)**

5. Name three expert review methods. For each of them, offer a brief description and how it could be applied to the interface described in Question 4. **(12 points)**

6. a) Describe the notion of *user-interface independence* in two sentences or less. **(5 points)**

b) Briefly describe how the designers, user manual writers, and software engineers have benefits that stem from this notion. Be sure you have an explicit description for each of these three populations. **(5 points)**