



Key: 11/060

Seat No.

**King Mongkut's University of Technology Thonburi
Midterm Exam of First Semester, Academic Year 2017**

COURSE CPE 379 Human-computer Interaction
Wednesday 27th September 2017

Computer Engineering Department 3rd, 4th Yr.
9.00-12.00 h.

Instructions

1. This examination contains 7 questions, 3 pages (including this cover page).
2. The answers must be written in **the answer book**.
3. Each student is allowed to bring **an A4 handwritten note** into the examination room. No books or other documents are allowed.
4. Use your consideration and explain it if you have certain doubts about the exam questions.

Name-Lastname _____ Student ID # _____

**Students must raise their hand to inform to the proctor upon their completion of the examination, to ask for permission to leave the examination room.
Students must not take the examination and the answers out of the examination room.**

Students will be punished if they violate any examination rules. The highest punishment is dismissal.

Exam created by

.....*Nuttanart Facundes*.....
(Asst. Prof. Dr. Nuttanart Facundes)

This examination has been approved by the committee of Computer Engineering Department

Natashe D.
.....*Assoc. Prof. Dr. Natashe Dejduvong*.....

Date.....

Total 25 points (25% of total grades)

1. Explain the difference between recognition and recall and how we can use them in designing an interface. (3 points)

2. Human Characteristics (2 points)

I want to e-mail a file to a friend. I start a new message, type in the text, write my name at the end, and then press SEND – forgetting to attach the file. This shows one of the human characteristics, what is it? Be specific in your answer.

3. Pick an answer (A, B, C or D) and write down in the answer book. (2 points)

3.1 What is affordance?

1. Possibility for using an object or interface
2. The cost of buying a user interface component
3. The completion times for a typical task
4. User preferences

3.2 You drag a folder to make a copy of its contents. An animation appears on the screen, showing files moving from one folder to another. This is an example of which of the following:

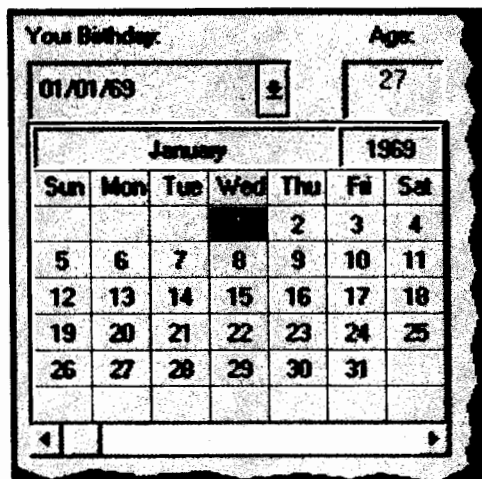
1. visibility
2. mapping
3. affordance
4. feedback

4. (5 points)

The following interface is taken from *Classified*, a shareware diary program. In this interface, the user cannot directly type the date of birth, but must use the calendar object, which appears after clicking on the drop-down arrow. The only way to change the year is to use the **scroll arrows at the bottom**: one click for each month, 12 clicks to the year

4.1 Describe what is the problem with this interface?

4.2 Design your new interface with a better method of inputting the date of birth. Explain your design concept.



5. (3 points)

Discuss the design of child tricycle as in the following figure, regarding the 3 principles of good design: *affordance*, *constraint* and *mapping*.



6. (3 points)

From homework assignment 3:

Identify and write down 3 rules of Schneiderman's 8 Golden Rules applied to the website www.proton-edar.com.my. Explain how those rules are applied.

7. (7 points)

An elevator panel will require buttons for **four floors** (parking, main floor, second floor and third floor), **door open**, **door close**, **stop**, and **emergency intercom**.

Propose a design for these buttons. Use organizing principles of *similarity* and *proximity*. Draw them in your answer book and explain your design.
