



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2011/2012**

**COURSE NAME** : HUMAN COMPUTER INTERFACE  
**COURSE CODE** : BIT 3163 / BIT 31603  
**PROGRAMME** : BACHELOR OF INFORMATION TECHNOLOGY  
**EXAMINATION DATE** : JANUARY 2012  
**DURATION** : 2 HOURS AND 30 MINUTES  
**INSTRUCTION** : ANSWER ALL QUESTIONS.

THIS QUESTIONS PAPER CONSISTS OF FIVE (5) PAGES

**PART A**

Instruction: Answer **ALL** questions.

- Q1** (a) Describe the most important HCI goals as they apply to each of the following types of applications.
- (i) Flight Simulator for Pilot Training
  - (ii) Air Traffic Control
- (4 marks)
- (b) Differentiate the **TWO(2)** gulfs in Donald Norman's model.
- (8 marks)
- Q2** (a) Define affordance.
- (2 marks)
- (b) Give an example of an affordance in a real world physical object and in a user interface.
- (4 marks)
- (c) Illustrate a screen based on any Design Guidelines that will be used to gather user information for a club membership based on the following criteria:
- (i) Information needed: title, name, email address, home address, office phone, ID and password (users need to confirm password by re-entering it again).
- (4 marks)
- (ii) Indicate mandatory field and default data format.
- (2 marks)
- Q3** (a) Explain **TWO(2)** traditional usability categories which have been adopted in ISO 9241 usability standard
- (4 marks)
- (b) Differentiate between design guidelines and principles.
- (4 marks)
- (c) Compare **TWO(2)** types of prototype.
- (4 marks)

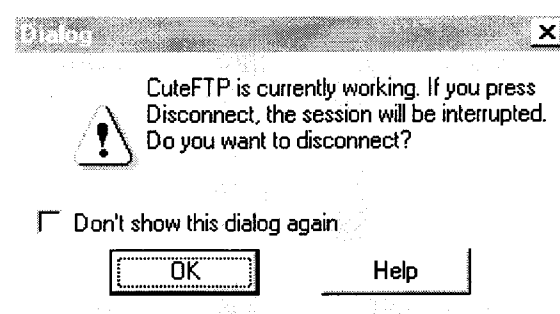
**Q4** (a) Given the following situation:

Azmir comes to the kiosk to find out some medical information. He first is asked to choose his favor of entertainment, such as TV, radio or newspaper. He likes reading so he touches the newspaper button. Then he choose education mode that best fit his purpose. The kiosk provides a list of topic about medical information. One of them catches his eyes. That is how to prevent H1N1 by vaccines. So he touches that topic and the screen show him a passage about vaccines.

Identify the usage of the story above.

(4 marks)

(b) **Figures Q4** show some errors in designing a dialogue:



**Figure Q4**

Analyze the problems of interface in **Figure Q4** using Shneiderman's 8 Golden Rules.

(4 marks)

(c) Draw a new appropriate dialogue based on Shneiderman's 8 Golden Rules.

(4 marks)

**Q5** (a) Give the meaning of Heuristic Evaluation.

(2 marks)

(b) Outline **THREE(3)** activities involved in Heuristic Evaluation.

(6 marks)

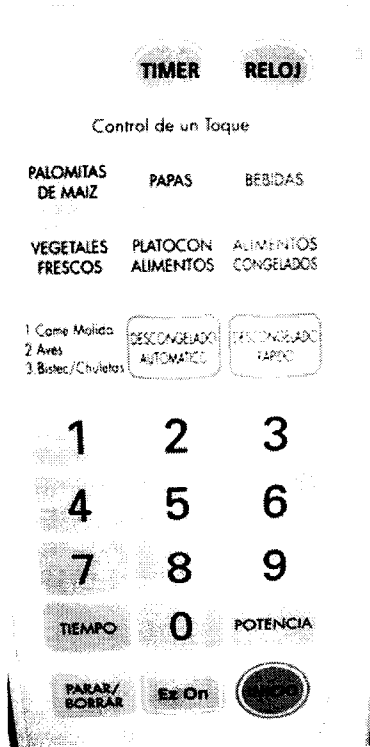
(c) Compare **TWO(2)** techniques of evaluating through user participation.

(4 marks)

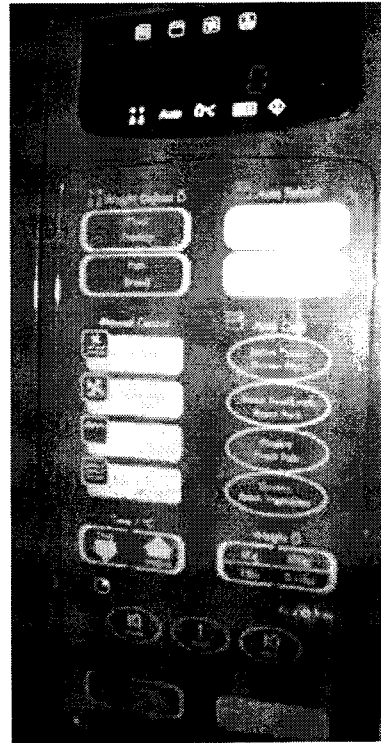
**PART B**

Instruction: Answer **ALL** questions

**Q6** Given following **Figure Q6(a)** and **Figure Q6(b)**:



**Figure Q6(a)**



**Figure Q6(b)**

- (a) List **FOUR(4)** available tools for layout. (4 marks)
  
- (b) Analyze which panel design fulfils the design principles using the available tools for layout (justify your answer). (16 marks)

**Q7** Given the following scenario:

You work as a web developer at Menang Sdn. Bhd. Your IT Manager has given you a task to develop a sports news web site. The web site should be able to report recent local and international sports news.

- (a) List **FOUR(4)** Rules of Thumb for good web sites (4 marks)
  
- (b) Categorize **TWO(2)** types of exact organization schemes which can be used for the web site. (4 marks)
  
- (c) Illustrate wireframe sketches of the main page of the web site which shows exact organization schemes and also global, supplementary, contextual and courtesy navigation technique. (12 marks)