



FINAL
Examination Paper

(COVER PAGE)

Session : January 2014

Programme : Diploma In Information And Communication Technology (DICTN)

Course : ICT1107 : INTRODUCTION TO HUMAN COMPUTER INTERACTION

Date of Examination : March 13, 2014

Time : 11:00am – 1:00pm Reading Time: Nil

Duration : 2 Hours

Special Instructions :

This paper consists of SIX (6) questions. Answer any FOUR (4) questions in the answer booklet provided. All questions carry equal marks.

Materials permitted : Nil

Materials provided : Nil

Examiner (s) : Mr. Lim Chai Kim

Moderator : Dr. Ang Tan Fong

This paper consists of 5 printed pages, including the cover page.

INTI INTERNATIONAL COLLEGE SUBANG

DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY PROGRAMME
(DICTN)

DIPLOMA IN INFORMATION TECHNOLOGY PROGRAMME (DIT/I)

ICT1107/CSC2117: HUMAN COMPUTER INTERACTION

FINAL EXAMINATION: JANUARY 2014 SESSION

Instructions: This paper consists of **SIX (6)** questions. Answer any **FOUR (4)** questions in the answer booklet provided. All questions carry equal marks.

Question 1

- a) List and briefly describe **FOUR (4)** effects of systems with poor usability. (4 marks)
- b) Identify and describe **THREE (3)** primary senses used by human in human-computer interaction. (6 marks)
- c) Describe the **THREE (3)** types of memory in human brain. (6 marks)
- d) List **THREE (3)** Keyboard Layout types (3 marks)
- e) Explain **THREE (3)** reasons speech recognition is not successful. (6 marks)

Question 2

- a) List **FIVE (5)** factors in physical environment that directly affect the quality of the interaction and the user's performance. (5 marks)
- b) Explain what the term "affordance" means. Give **THREE (3)** examples. (5 marks)
- c) List Schneiderman's "8 golden rules of interface design". (8 marks)
- d) Norman (1988) offers seven stages of action, arranged in a cyclic pattern, as an explanatory model of human-computer interaction. List the **SEVEN (7)** stages of action. (7 marks)

Question 3

- a) During acceptance tests, rather than the vague and misleading criterion of "user friendly," there are measurable criteria for the user interface that can be established. List **FOUR (4)** of the measurable criteria. (4 marks)
- b) Explain **FOUR (4)** factors that affect evaluation plans. (8 marks)
- c) Explain based on the interface design below **FOUR (4)** things that are not user friendly.

The image shows a screenshot of a graphical user interface window titled "New Customer". At the top, there is a menu bar with the items "Exit", "File", "Edit", and "Help". Below the menu bar is a row of four icons: a floppy disk, a document with a pencil, a trash can, and a tree. The main area of the window contains four text input fields, each with a label to its left: "Name", "Address", "I.C. Number", and "Phone Number". At the bottom of the window, there are two buttons labeled "OK" and "Cancel".

(8 marks)

- d) There is a great temptation to have computers "talk" as though they were people. However, history has proven that anthropomorphic interface has failed many times. Give **FIVE (5)** examples of unsuccessful anthropomorphic designs. (5 marks)

Question 4

- a) Describe **THREE (3)** attributes that well designed error messages should have. For each attribute, give a good and bad example of such error messages. (9 marks)
- b) According to nonanthropomorphic design guidelines, which of the following is the best and worst instruction to a user to begin a lesson by pressing RETURN?
 I will begin the lesson when you press RETURN
 You can begin the lesson by pressing RETURN
 To begin lesson, press RETURN (2 marks)
- c) State the **TWO (2)** nonanthropomorphic guidelines used in question 4b above. (4 marks)
- d) Explain **TWO (2)** reasons for the nonanthropomorphic guidelines mentioned in questions 4b and 4c above. (5 marks)
- e) Describe **FIVE (5)** mistakes in web page design. (5 marks)

Question 5

- a) Explain **TWO (2)** differences between traditional text and hypertext. (4 marks)
- b) Describe **ONE (1)** advantage of using hypertext compared to traditional text and **ONE (1)** possible disadvantage of using hypertext if it is not designed properly. (4 marks)
- c) Define the term Hypermedia. (3 marks)
- d) Describe **THREE (3)** type of domains in which hypermedia systems have proved successful. (9 marks)
- e) Explain **ONE (1)** advantage and **ONE (1)** disadvantage of using scenarios in the design process of interaction. Suggest **ONE (1)** way to overcome the disadvantage. (5 marks)

Question 6

- a) (i) Define font. List **FOUR (4)** popular fonts used in computer systems. (3 marks)
- (ii) Describe the difference between serif and sans-serif font. Illustrate your description and give **ONE (1)** example font for each type. (5 marks)
- (iii) Describe the difference between fixed-pitch and variable-pitch font. Give **ONE (1)** example font for each type. (4 marks)
- b) List and explain **THREE (3)** tools or considerations that should be used when designing screen layouts. (9 marks)
- c) Describe what 'breadcrumbs' in web site design are. List **TWO (2)** reasons for having breadcrumbs on web pages. (4 marks)

--THE END--

(ICT1107/CSC2117/F/LimChaiKim/Jan2014)