FINAL
Examination Paper

(COVER PAGE)

Session : April 2013
Programme : Diploma In Information And Communication Technology (DICTN)
Course : ICT1107 : INTRODUCTION TO HUMAN COMPUTER INTERACTION
Date of Examination : August 1, 2013
Time : 8:00am – 10:00am  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) : Ms. Lim Chai Kim, Mahaletchumy Ramakrishnan.
Moderator : Dr. Ang Tan Fong

This paper consists of 4 printed pages, including the cover page.
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DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY PROGRAMME (DICTN)
DIPLOMA IN INFORMATION TECHNOLOGY PROGRAMME (DIT/I)
ICT1107/CSC2117: INTRODUCTION TO HUMAN COMPUTER INTERACTION
FINAL EXAMINATION: APRIL 2013 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 FOUR (4) aspects of computer system collectively known as usability. (4 marks)

(b) One of the fundamental principles in Human-Computer Interaction is the principle of "Determining the User Skill Level" which states THREE (3) user skill levels. Name and briefly describe the THREE (3) user skill levels. (6 marks)

(c) Give THREE (3) design goals for EACH of the user skill level specified in Question 1(b) above. (9 marks)

(d) List SIX (6) potential legal controversial issues that should be taken into consideration during design processes. (6 marks)

Question 2

(a) Describe any FIVE (5) elements of computer system that affects the human computer interaction. (10 marks)

(b) What is the main function of the touch screen? (2 marks)

(c) Identify any TWO (2) advantages and TWO (2) disadvantages of touch screen. (8 marks)

(d) Define the term "recency effect" in the context of short-term memory. (1 mark)

(e) Draw the diagram to illustrate the short term memory. (4 marks)
Question 3

(a) Define Norman's "Gulf of Execution" and "Gulf of Evaluation" (4 marks)

(b) Explain **FOUR (4)** information a typical usability test's consent statement should contain. (8 marks)

(c) Explain **FOUR (4)** factors that affect evaluation plans. (8 marks)

(d) List **FIVE (5)** "Evaluation During Active Use" methods that can be used to collect feedback from the users for the purpose of improving or refining the system. (5 marks)

Question 4

(a) What is ergonomics and the main importance of it? (4 marks)

(b) List **FOUR (4)** issues addressed in ergonomic design. Provide an example for each issue. (8 marks)

(c) List any **FOUR (4)** common interaction styles in HCI. (4 marks)

(d) List any **FOUR (4)** interaction design basics. (4 marks)

(e) List **FIVE (5)** devices for virtual reality and 3D interaction in positioning in 3D space. (5 marks)

Question 5

(a) List **SIX (6)** colour guidelines for user interface designers. (6 marks)

(b) Define "anthropomorphic". List **THREE (3)** examples of anthropomorphic user interface designs. (5 marks)

(c) Describe **FIVE (5)** mistakes in web page design. (5 marks)

(d) The software that your company developed is not well received by its users. As a medium-sized software startup, your company does not have the proper organizational design to support usability engineering practices. As the lead developer, suggest **SIX (6)** methods for convincing your manager to allocate new resources to carry out proper usability engineering processes? (9 marks)
Question 6

(a) In the context of human computer interaction define the term ‘hyper’.

(b) What is animation?

(c) Describe THREE (3) importance of animation in interactive systems.

(d) Describe FOUR (4) ways for making navigation easier in computer system design.

(e) List any FOUR (4) issues regarding quality of service of network timing.

(f) Outline the FIVE (5) principles affecting learnability

-THE END-

(ICT1107/CSC2117/F/LimChaiKim&MahaletchumyRanakrishnan/Apr2013)