University Examinations 2012/2013

YEAR THREE, SEMESTER ONE EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BUSINESS INFORMATION TECHNOLOGY

BBT 2212: HUMAN COMPUTER APPLICATION

DATE: APRIL 2013   **TIME: 2 HOURS**

INSTRUCTIONS: *Answer question **one** and any other **two** questions*

QUESTION ONE (30 MARKS)

a) Explain any four disadvantages of participatory design method [4 marks]

b) Metaphors convey an abstract concept in a more familiar and accessible form. State any four of these metaphors   [4 marks]

c) Explain the goals evaluation.   [4 marks]

d) A user needs to use Windows Explorer to copy a number of specific files from one workstation to a shared folder on another workstation on a network. Create a hierarchical task analysis for this scenario.   [4 marks]

di) Describe the goals of HCI   [4 marks]

dii) A database entry screen is being designed. The screen will display a form consisting of a large number of text boxes. The information to be entered will be in several categories, including personal details, account details and transaction information. Discuss ways in which the Gestalt Laws of Perceptual Organisation could be applied to enhance the usability of this screen. [4 marks]

diii)   List and discuss interaction styles in HCI   [6 marks]

QUESTION TWO (20 MARKS)

a) List and discuss techniques which can be used to guide focusing users attention at the interface   [3 marks]

b) enumerate any three characteristics of a usable system   [3 marks]

c) Discuss Shneiderman's golden rules of interface design   [8 marks]

d) Differentiate between the followings: [6 marks]
>   i. Constructivist theories and ecological theories of perception
>   ii. User-centred design and usage centred design
>   iii. Computational and connectionist approaches of cognitive theories

QUESTION THREE (20 MARKS)

a) Explain any five advantages of GroupWare over single-user systems [4 marks]
b) Distinguish the terms Computer Supported Cooperative Work(CSCW) and GroupWare [4 marks]
c) Describe the steps in the Usability Engineering Lifecycle [7 marks]

QUESTION FOUR (20 MARKS)

a) Using your own example scenario discuss how to implement concept of Cognitive Walkthrough [8 marks]
b) List and explain User support approaches that can be included in an interface [4 marks]
c) Discuss groups of techniques used in knowledge representation for adaptive help system. [8 marks]

QUESTION FIVE (20 MARKS)

a) Write short notes on the following:
  i) Norman's model of Interaction [5 marks]
  ii) Concept of GOMS in relation to task analysis [5 marks]
  iii) principles of visibility and affordance [5 marks]
  iv) Keystroke Level Modelling   [5 marks]