Uva Wellassa University of Sri Lanka
Faculty of Science & Technology
Department of Computer Science & Technology
1st Semester Examination March/April 2013
IIT 311-2 Human Computer Interaction

Uva Wellassa University

Part B

Answer **All (04)** questions

Time Allowed: **One (01) hour**

Total Mark: **60**

01. One researcher who has contributed extensively to the field of human-computer interface design is Donald Norman.
    a) Explain the stages of Norman's model.
    b) Consider "Adobe Photoshop" application and suppose you want to print an edited image using the print command available in it. Identify and list all the actions involved in the printing process. Fit the Norman's Model with the user interaction of the printing process. Explain the gulf of the interaction found in the printing process, if any.

(15 Mark)

02. Designing of any computer system, many decisions are made as the product goes from a set of vague customer requirements to a deliverable entity. Often it is difficult to recreate the reasons, or rationale, behind various design decisions.
    a) What do you mean by Design Rationale (DR) in interface designing?
    b) List benefits of DR in computer interface designing.
    c) Explain two types of DR using examples.
    d) Explain the distinction between two DR mentioned in part (c).

(15 Mark)

03. Designing for maximum usability is the goal of an interactive system design.
    a) Briefly explain three main categories of usability principles and summarize their subcategories (at least three for each).
    b) Select two principales from the subcategories mentioned above and provide a usability specification for an Electronic Meetings Diary (or Calendar). [Hint: You may use Predictability and Task Migratability principles and assume that the electronic system will be replacing the paper-based system]

(15 Mark)

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04. History of interactive system design provides paradigms for usable designs.

a) Explain paradigm shift from Batch Processing to Ubiquitous Computing by providing suitable examples.

b) Briefly describe how to maximize the usability and accessibility of an interface using the properties of sound.

c) Critically evaluate the touch-screen technology used in modern smart phones.

(15 Mark)