

## ANSWER 3 QUESTIONS

### *Task Analysis*

Use Hierarchical Task Analysis to represent the process of organising photographs within a photo-album.

[18 marks]

Using part of this Hierarchical Task Analysis, demonstrate how at least one user functional requirement can be gathered.

[7 marks]

What are the strengths and weakness of Hierarchical Task Analysis?

[8 marks]

[Total 33 Marks]

### *Evaluation*

An interactive television application has been developed to support betting on sports fixtures. Given three weeks to evaluate this application, alone, construct a plan for how you would conduct such an evaluation. You have access to

a working prototype and money to pay for subjects and equipment.

[20 marks]

When writing the report for this evaluation, outline the structure and high-level content that would need to be included.

[13 marks]

[Total 33 Marks]

### ***3. User Studies***

A manufacturer of Personal Digital Assistants (PDAs) plans to integrate a foreign language dictionary function in a forthcoming new model. You are asked to plan and conduct a user study to identify requirements and constraints as input for the design of the new model.

(a) Outline a plan for the user study. Clearly state the goal and scope of the user study (including number and types of users to be studied), and the type and amount of data you want to collect.

[18 marks]

Describe how you would employ the following methods in this user study, and what type of data you can collect with them:

- (i) system logs;
- (ii) user reports;
- (iii) focus groups.

[15 marks]

[Total 33 Marks]

#### **4. Conceptual Design and Metaphors**

(a) Explain what a *problem isomorph* is, and how this applies to user interface design.

[6 marks]

(b) You are designing a user interface for an Internet Session Directory, which allows users to find out what multimedia events are transmitted on the Internet. One of your colleagues suggests that “*a whole rack full of VCRs*” would be a good metaphor to base the design model on. Evaluate the metaphor using the framework by *Anderson et al.*, and state whether this metaphor is suitable.

[17 marks]

(c) One of the problems with applying Conceptual Design in practice is lack of concrete tool support for designers. Name 5 techniques that should be part of the “*Conceptual Designer’s Toolbox*”, and which particular aspect of the CD process these tools would support.

[10 marks]

[Total 33 Marks]

#### **5. Computer-Supported Collaborative Work (CSCW) and Multimedia Systems**

(a) Apply *Buxton’s* notion of *seamless transition* between different types of interaction to the design of a local-area based communication service (which, for instance, allows local businesses to send messages to mobile phones and Personal Digital Assistants (PDAs) of people moving through the area). Discuss implications for users’ (a) *freedom of choice* (in terms

of the information they receive) and (b) *privacy*. What can designer of the service and its applications do to counteract negative implications?

[18 marks]

(b) You are designing a multilingual multimedia system. The purpose of the system is to instruct patients in the pharmacy of a London hospital (most of whom do not speak English) on how to take their prescribed medication correctly. The idea is that the pharmacist would place the patient in front of system, and select the medication and native language. Describe the different types of information to be communicated to the patients, and discuss which media would be appropriate for conveying them.

[15 marks]

[Total 33 Marks]

[END OF PAPER]