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NEWCASTLE UNIVERSITY

SEMESTER 1 2009/10

INTERACTION DESIGN

Time allowed – 1¾ Hours

Instructions to candidates:

Read the scenario carefully.

Then answer Question One and ONE other question.

Marks shown for subsections are indicative only

[Turn over

[CSC3003]

Scenario

A theatre wants to install a purpose-built, electronic system that will allow customers to browse through, and book tickets for, the various performances that will be taking place. These special terminals will be located in the booking office and in the foyer of the theatre. When browsing, customers should be able to see descriptions of the performances and the performers, as well as seating availability and prices. The system should be designed for use by all the theatre's potential customers and take into account any special requirements of its environment. There are many customers who are regular theatre goers.

The staff of the theatre must also have an interface to the system, not only for maintenance (such as adding/removing performances, setting prices and changing availability information), but also so that they can work with customers who ask for help.

The theatre also wishes to provide similar services to Internet users. They would expect their website and in-house systems to be well integrated, but both should suit the expectations and skill levels of their targetusers.

Question 1. (Compulsory Question)

a) Describe the human factors and accessibility *issues* that should be considered when designing the interfaces to

    i)   the customer units.   [8 marks]

    ii) the staff systems.   [6 marks]

b) Including a description of any relevant hardware, outline a possible design for the interface to

    i)   the customer units.   [7 marks]

    ii) the staff systems.   [4 marks]

Remember to describe the hardware that would be required. Use pictures and diagrams where appropriate.

Question 2.

a) Several sets of principles have been proposed for describing various aspects of usability. Use illustrations drawn from the interface you propose for the ticketing system to show how some of these principles can be applied in a design. [15 marks]

b) Discuss how you would tackle the issues raised by the need for accessibility for your system. [5 marks]

c) What methods might you employ to evaluate the usability of the system after you have implemented it? Describe the strengths and weaknesses of these methods, and recommend the most suitable for this case.

[5 marks]

Question 3.

a) Describe how you would approach the construction of the company's website so that it has a similar interface with the same kind of usability and accessibility characteristics as the purpose-built browsing points, while taking into account the difference in the way the customer is accessing the information. [8 marks]

b) What web browser/HTML facilities might you wish to avoid (or use sparingly) when creating the website and why? [6 marks]

c) How would you test and evaluate your website? [5 marks]

d) Discuss the advantages and disadvantages of using a single, web-based interface everywhere rather than having different interfaces. [6 marks]