

## 1994 Paper 8 Question 6

### Designing Interactive Applications

Pedal cyclists are to be allowed once again to ride through Cambridge on a 24-hour basis, using a traffic control system based on Air Traffic Control principles. By dialling a special telephone number and using the telephone keypad for data entry, cyclists will file a journey-plan before departure, and will be allocated a journey schedule that is announced back to them over the telephone.

Your company is bidding for the contract to develop the *journey-plan filing system*, which supports the filing of journey plans by the public and which will be linked to a separate system (not part of the bid) that controls cycle traffic. You have been put in charge of preparing your company's bid.

- (a) Describe how you would conduct a user-needs analysis to support the design of the system. What are the main needs that you think would emerge from this? [6 marks]
- (b) Design the user interface of the system in sufficient detail to explore the likely form of the user's mental model, and describe the form you think this mental model might take, presenting enough details of the user interface to justify your answer. [10 marks]
- (c) How would you go about analysing and/or evaluating the design? [4 marks]