

## 1996 Paper 7 Question 13

### Designing Interactive Applications

When a new patient applies to join a doctor's practice, personal and medical-history details must be obtained. Usually the patient (or the patient's parent in the case of young children) must fill in a form of two pages or more for inclusion in the patient's records. With the computerization of one particular doctor's practice, P1, a means is needed for entering the new patient's details. Two approaches are considered:

- (A) the doctor interviews the patient at the start of the initial consultation, and enters the details as they are elicited;
- (B) upon application, the patient or parent sits down at a computer and enters the details.

Write one-sentence problem statements for each design problem. Then, drawing on your knowledge of the work of the doctor, discuss the pros and cons of the two approaches. [12 marks]

Suppose two practices, P1 and P2, adopt approaches A and B respectively. Each is dissatisfied with the results. Practice P1 therefore decides to switch to approach B, installing a computer in a booth adjoining its waiting room, running the system designed for the doctor (modified only to prevent access to existing records), so that patients and parents can enter their details. Meanwhile practice P2 decides to change to approach A, loading the patient data entry program, unchanged, onto the doctor's PC so that he or she can enter the details during consultations.

If you were asked to advise practices P1 and P2 on these moves, what outcomes would you predict? What analytical method would you use, in each case, to back up your predictions, and why? [8 marks]