



Victorian Certificate of Education 1998

INFORMATION PROCESSING AND MANAGEMENT

Common Assessment Task 3: Written examination

Monday 9 November 1998: 3.00 pm to 5.15 pm

Reading time: 3.00 pm to 3.15 pm

Writing time: 3.15 pm to 5.15 pm

Total writing time: 2 hours

QUESTION BOOK

Structure of book

<i>Number of questions</i>	<i>Number of questions to be answered</i>
10	10

Directions to students

Materials

Question book of 3 pages.

One or more script books.

The task

Please ensure that you write your **student number** in the space provided on the front cover of the script book(s).

Read the case study contained in this question book and then answer Questions 1–10.

Answer **all** questions in the script book(s) provided.

Each question is of equal value. Students should spend approximately the same time answering each of the ten questions.

All written responses should be in English.

At the end of the task

Place all other used script books inside the front cover of one of the used script books.

You may retain this question book.

Case study

Pinnacle Practice is a company that manages doctors' clinics. When a patient visits the doctor the details of their problem are currently written by the doctor on a piece of paper which is kept in a folder with the patient's name on the outside. When a patient visits the doctor again their folder is taken out and new visit details are recorded. This method of inputting and storing information makes it easy for doctors to see what has happened to a patient in previous visits.

The management of Pinnacle Practice would like to record the types of injuries or illnesses of patients visiting all of the doctors' clinics. Analysis of these records would show what medicines and equipment are needed at each clinic so that the appropriate amounts can be stored in each clinic. The present system makes this difficult. Therefore, it is proposed to change the input and storage of patient information.

Doctors will have a computer touch screen and keypad in their rooms. The touch screen accepts input by being touched with a finger. The doctor will enter the patient's number on a keypad and be shown any information from previous visits. On the screen will be a large diagram of a human body. The doctor will press the screen on the part of the body with which the patient has a problem. The screen will then show a list of common problems that could happen with that part of the body. The doctor will examine the patient and press the item on the list which is closest to the problem. A list of treatments will appear and the doctor can choose one by pressing the screen. The part of the body, problem and treatment will then be stored. Choosing from standard lists makes it easy to count numbers of people for each treatment. This information can be used to count the amounts of medicine and equipment used at each clinic.

Question 1

The touch screen entry will change the way in which data is input by the doctors for each patient visit. Describe the impact of this new input method on

- speed of data entry
- accuracy of data entry
- the range and type of data that can be entered.

Question 2

Describe the way in which the new information system will contribute to the following organisational goals of Pinnacle Practice.

- allowing doctors to efficiently record and retrieve all details of a patient's medical history
- ensuring appropriate amounts of medicine and equipment are stored in clinics

Question 3

The new system of inputting, storing and analysing patient visit information will be designed using a top-down strategy. Describe what using a top-down strategy means for this system.

Question 4

Describe three possible implications for patients arising from the introduction of the new system.

Question 5

It is proposed that there be no disk drives in clinics and that all patient information be transmitted to a central computer over high quality communications lines. Give two advantages and two disadvantages of this proposal.

Question 6

Computer software that can be used to connect touch screens to the system is needed. Describe in detail a compatibility issue that needs to be considered when choosing touch screen software.

Question 7

There are many touch screens from which to choose. How would you test the speed and accuracy of each of the touch screens for data input purposes?

Question 8

It is expected that there will be less work for receptionists in the new system. Jo Griczk has been identified as a receptionist who would have the job of changing and adding medical problems and treatments to the lists in the system as changes became necessary. This is done using a menu driven computer program written by the system suppliers.

- i. Who should train Jo Griczk?
- ii. What should be the content of Jo's training?

Question 9

Clinic doctors and Jo Griczk will be supplied with quick reference cards. For each type of user, describe what should be included in the content of these cards. Your answer should clearly show the differences in content between the cards for each user.

Question 10

Assume that the system has been implemented and the computer hardware and software are running properly. You wish to test if the system is meeting the organisational goals as stated in Question 2.

- i. What data would you gather?
- ii. How would you collect this data?