

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures

Words

VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY



**Victorian Certificate of Education
2001**

**INFORMATION PROCESSING
AND MANAGEMENT**

Written examination

Monday 12 November 2001

Reading time: 3.00 pm to 3.15 pm (15 minutes)

Writing time: 3.15 pm to 5.15 pm (2 hours)

QUESTION AND ANSWER BOOK

Structure of book

<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
18	18	60

Materials

- Question and answer book of 12 pages.

Instructions

- Write your **student number** in the space provided on the front cover of this book.
- All written responses must be in English.

Instructions

Answer **all** questions in the spaces provided in this book. If you need to change an answer there is extra space available at the back of this book.

You should answer **either** Alternative A **or** Alternative B in Question 2.

Question 1

Management has decided to introduce an email system to improve communication within a company. Below is a list of factors that may cause change within an organisation. Indicate, with a tick (✓), the most probable factor that will have caused this change.

- desire for increased competitiveness ☐
- government policy ☐
- community attitudes and values ☐
- a new industrial agreement ☐

1 mark

Question 2

Answer either Alternative A or Alternative B for Question 2.

Alternative A☐

In reference to a particular web authoring program that you have used, describe in detail how an image is placed on the page.

OR

Alternative B☐

List a software tool (product) you have used and describe two methods of electronic data validation.

Please tick (✓) alternative chosen and write answer below.

2 marks

Question 3

Explain two factors that affect the suitability of information for a particular purpose.

1. _____

2. _____

2 marks

Question 4

Explain why the use of inappropriate desks and chairs can cause health problems for computer users.

1 mark

Question 5

A store requires customers to register personal details over the Internet before being able to purchase goods. Identify one possible social issue that may arise from this requirement.

1 mark

Question 6

Teach-Me is a tutoring business. School students are able to employ someone to help them, either in their home or at another location. Help is available for any subject at \$28 per hour. Tutors employed are sent a weekly email with an attached file giving them their appointments with students for the coming week.

- a. Two lists of the possible input data items for the information system associated with the business are set out below. From each list tick (✓) the item that would be the **least** essential.

name of student	
address of student	
gender of student	
subject required	
time and duration of appointment	

name of tutor	
subject tutored	
other employer(s)	
pay rate	
email address	
postal address	

2 marks

- b. What other output, apart from the email, would tutors expect to receive on a regular basis?

1 mark

TURN OVER

Question 7

Tinsleys metal fabrication business has developed a software solution to calculate the time worked by employees. Two types of documentation have been specified for the solution; one for the person managing the system and the other for the employees who will individually enter their work times.

Explain the difference between the two types of documentation.

1 mark

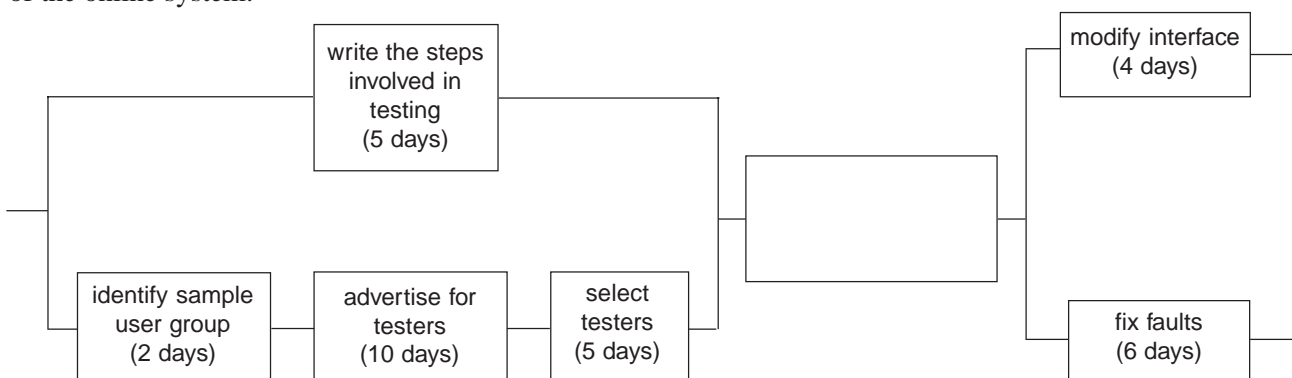
Question 8

Explain the term Project Management.

1 mark

Question 9

Cool College has a committee that organises the VCE social. For 2001 they are changing to an online booking and recording system. The diagram below shows some tasks and the timeline associated with the development of the online system.



Note: only weekdays included

- a. If the design team cannot agree on the steps involved in testing and the task takes two extra days, what impact will this have on the critical path of the project?

1 mark

- b. What task would be shown in the empty box?

1 mark

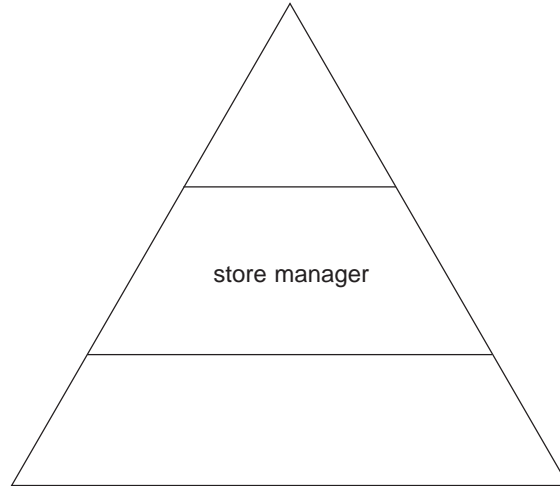
- c. What is the maximum number of days the task 'select testers' could take if the critical path can not be changed?

1 mark

Question 10

The list of positions for a large multinational company in Australia include department heads, store managers, sales assistants, a state manager and a national manager.

- a. Complete the organisational chart below to show the management structure, for **Victoria** only, by placing one management position listed above in each blank level of the diagram.



2 marks

- b. The company produces a report for each store providing the total sales by department for the current week, the previous week and the year so far. A copy of the report for the relevant store is given to the store manager and each department head. Explain how each of these people would use the report.

2 marks

Question 11

Give one form (type) of information that may be provided over the Internet and describe the technical aspects to be considered in providing the information.

- i. Form _____

1 mark

- ii. Description of technical aspects to be considered _____

2 marks

TURN OVER

Question 12

Eastly Primary School has 50 computers that are loaned to students. The school is concerned that some are requiring excessive repairs and has asked you to develop an information system to monitor the loans and maintenance. Describe what you would do in the design phase.

2 marks

Question 13

The table below shows some records maintained by a company and the people who have access to them.

financial records	accountant and finance department staff
personnel contact details and employment history	personnel manager and staff
stock lists	all staff

Choose one type of record and describe strategies to ensure the security of the data and integrity of the information.

3 marks

Question 14

Semton Enterprises sells art and craft supplies. The business is divided into departments. One person in each department has been given the responsibility of overseeing the development of web pages which will display products, prices and staff contact information. The system administrator has suggested students from local schools be engaged to develop the pages. Each department has been assigned students from a different school. It is expected that the students will work at times that suit them and that the pages will be developed independently.

a. Explain three weaknesses in this approach.

1. _____

2. _____

3. _____

3 marks

b. Who would you suggest tests the solution and why would you choose this person?

2 marks

Question 15

The town of Woomagarabuck has two hospitals. Only one of the hospitals has an x-ray unit and the hospitals are considering sharing some other facilities such as their pharmacies and kitchens. Some doctors work at both hospitals and some patients attend both hospitals. A communications link has been proposed to connect the computer systems in both hospitals.

- a. What would be one of the organisational goals of a hospital in Woomagarabuck?

1 mark

The hospitals have decided to establish a common patient admissions and medical history database.

- b. State what data item(s) would allow the hospitals to uniquely identify each patient.

1 mark

- c. Give two examples of data, other than patient details, that the two hospitals may wish to share.

1.

2.

2 marks

- d. Name and describe the functions of one active hardware component that would be essential in the network to enable applications and information to be accessed from workstations in the other hospital.

3 marks

The hospital administrators have suggested that the database should be read-only for all users and only the data entry clerks in each hospital can change or add records.

- e. State one reason why doctors should not be allowed to change or add data.

1 mark

Question 16

Future Features is a small but rapidly growing company. In the past, staff have been given an allowance to purchase their own computer equipment. This worked well initially as all staff could select the type of computer they liked best. However, management has become concerned that as the company expands there is no consistency in the technology being purchased by employees. Management and staff have agreed that as from next year the company would purchase computers for all staff members.

- a. List two methods that could be used to gather the data needed to enable Future Features to determine the specifications for the computers to be purchased.

1. _____

2. _____

2 marks

- b. Explain why it is necessary for the company to evaluate a range of solutions before selecting an option.

1 mark

- c. Classy Computers has offered to provide a networked solution. Suggest two changeover procedures that could be considered and justify **one** of the two alternatives.

1. _____

2. _____

Justification _____

3 marks

TURN OVER

Question 17

The Chief Executive Officer (CEO) of International Books has stated the company must at all times aim to meet the organisation's goal of 'providing customers with a fast, reliable, personalised service'. The South Melbourne store manager believes that an in-store computer facility, where customers can search the company's stocks, will improve customer satisfaction and provide a faster service. The staff at the store have objected to this as not providing personalised service. Previously the store's staff would search the company database when a customer made a request for a book.

- a. If the CEO approves a trial of the computer facility, explain one data security **or** training requirement that will need to be addressed.

1 mark

- b. Explain why using a computer terminal may not meet the company's goal.

1 mark

- c. The customer response has been positive and the CEO wants to install an in-store facility across all stores. Identify and explain in detail one requirement, **apart from cost and the requirement answered in part a. above**, that would need to be considered before implementing the change.

Requirement _____

Explanation _____

4 marks

- d. Recommend an evaluation strategy for determining the success of the change.

2 marks

More and more organisations are providing access to the Internet from their Local Area Network (LAN) so that employees may use email and the Internet. Discuss the risks this creates for the organisation and some of the strategies that might be adopted to minimise these risks.

[illegible]

TURN OVER

[illegible]

END OF QUESTION AND ANSWER BOOK

