



**Victorian Certificate of Education  
2002**

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

**STUDENT NUMBER**

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**INFORMATION PROCESSING  
AND MANAGEMENT**

**Written examination**

**Monday 11 November 2002**

**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>
15	15	60

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

**Materials supplied**

- Question and answer book of 18 pages.

**Instructions**

- Write your **student number** in the space provided above on this page.
- All written responses must be in English.

**Students are NOT permitted to bring mobile phones and/or any other electronic communication devices into the examination room.**

**Instructions**

Answer **all** questions in the spaces provided.  
Answer **either** Part A **or** Part B for Question 7.

**Question 1**

Indicate the correct answer by ticking the appropriate box below.

What would best measure an improvement in the effectiveness of producing an advertising flyer?

The output

- was produced in twenty minutes instead of half an hour.
- cost an extra dollar per page for printing photographs.
- was produced using different hardware.
- was produced in colour instead of black and white.

1 mark

**Question 2**

List a software tool you have used this year and describe how a function of the software, other than copy and paste, allowed you to produce information efficiently.

Software tool \_\_\_\_\_

Description \_\_\_\_\_

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1 mark

**Question 3**

Give two reasons why the size of file attachments sent by email should be limited.

Reason 1 \_\_\_\_\_

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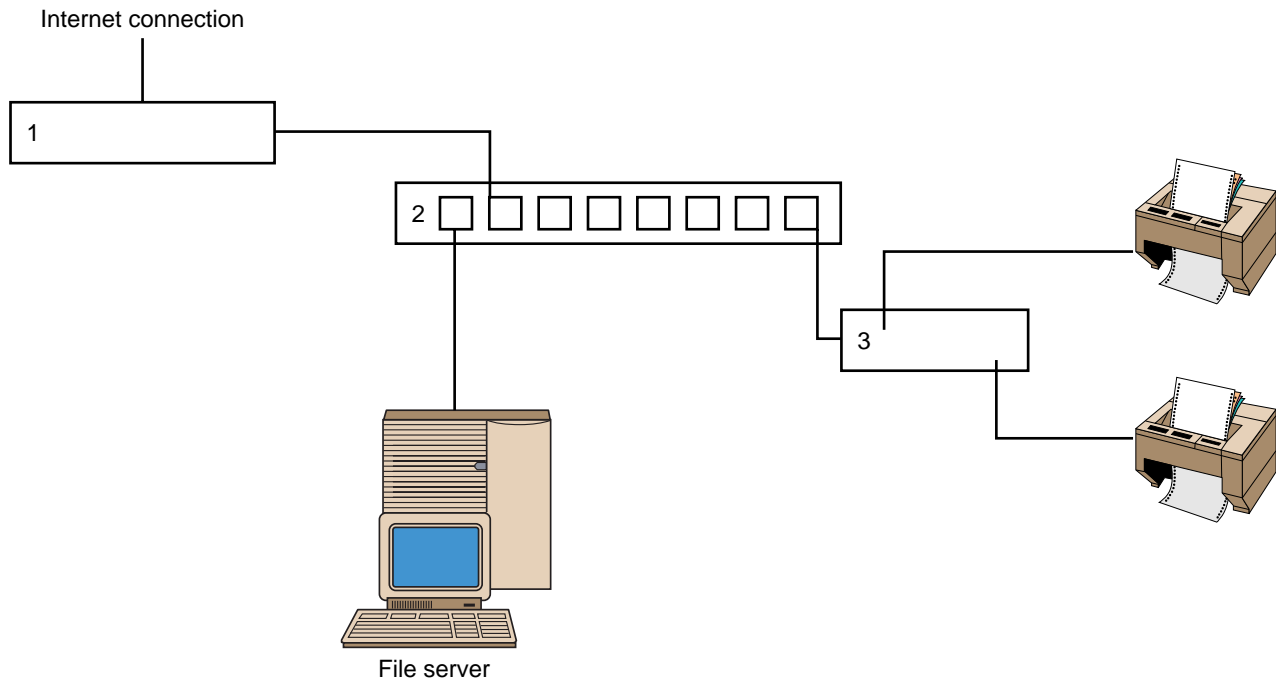
Reason 2 \_\_\_\_\_

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2 marks

**Question 4**

- a. Indicate the correct answer by ticking the appropriate box below.  
In the network diagram shown above, the numbered components (1, 2 and 3) are

- modem, hub and printer.  
 firewall, hub and print server.  
 firewall, network and print server.  
 modem, network and printer.

1 mark

- b. Describe the purpose of the empty connections on component 2.

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1 mark

**TURN OVER**

**Question 5**

The first phase of the System Development Life Cycle is analysis. City Graphics is planning to install an internal email system. They have gathered data on what the system needs to be able to do by interviewing current staff.

- a. Explain one strength and one weakness of this method of gathering data.

Strength \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Weakness \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2 marks

- b. Several steps need to be completed before introducing the modified information system. Select the steps which occur in the analysis and design phases.

Step 1 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Train staff</div>	Step 2 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Draw up the necessary input/output screens</div>	Step 3 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Purchase new equipment</div>
Step 4 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Document the procedures of the current system</div>	Step 5 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Write user documentation</div>	Step 6 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Survey users of the new system</div>

Analysis phase \_\_\_\_\_

Design phase \_\_\_\_\_

2 marks

**Question 6**

Before creating a web site, Plans Plus, an architectural firm, has asked you to develop a design of the site. What design technique would you use and why?

Design technique \_\_\_\_\_

Reason \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2 marks

**Question 7**

Answer **either** Part A **or** Part B.

**Part A**

Explain what test data is and why it is essential to create test data to enter into a database or spreadsheet solution.

**OR**

**Part B**

Explain why it is essential for written documents to have their message tested, and how this can be achieved.

Indicate which part you have chosen by ticking the appropriate box.

**Part A**

**Part B**

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2 marks

**TURN OVER**

**Question 8**

Funky Mobile Phones is developing its own web site. Shown below is their homepage which is being tested with staff. The developer has received several negative comments from staff about the appropriateness of the conventions used.

Products Suppliers Troubleshooting Contact Passwords Pre-paids

**Funky Mobile Phones**  
Belltown Vic  
Ph 0413 423 433

**Our phones work with Telstra  
or Optus connections.**

**An All Australian Company!**  
Handsets made in Taiwan

Products  
Suppliers  
Troubleshooting  
Ring Tones  
Passwords  
Contact

**Colours:** All text will be blue and the background of each page will be red.

Recommend how a web designer could correct any four generally accepted web conventions not followed by Funky Mobile Phones.

Recommendation 1 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommendation 2 \_\_\_\_\_  
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Recommendation 3 \_\_\_\_\_  
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Recommendation 4 \_\_\_\_\_  
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\_\_\_\_\_

4 marks

**Question 9**

Fuel ‘n’ Shop is a national chain of petrol stations offering a range of supermarket products. When a customer purchases an item such as a newspaper or can of drink, the attendant scans the barcode on the product giving the customer a receipt. The data from the register is sent to a server at the company’s headquarters where the data is processed. A daily sales report is given to the local Store Manager, Tyson, and a monthly summarised report is given to the Victorian Manager, Tina.

- a. The reports were produced by a management information system. Identify the type of information system used by the attendant.

\_\_\_\_\_ 1 mark

- b. What types of decisions (operational, strategic, tactical) will Tyson and Tina make based on the information provided to them?

Tyson \_\_\_\_\_

Tina \_\_\_\_\_

2 marks

- c. State another type of information system that could be used by Fuel ‘n’ Shop’s headquarters and give an example of how it might be used.

Information system \_\_\_\_\_

Example \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2 marks

- d. The CEO (Chief Executive Officer) would like to compare the sales of each outlet. What is the best method of presenting the information and how often should it be produced?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2 marks

- e. Fuel ‘n’ Shop investigated two options for sending the data to headquarters – using a dial-up modem or using a Wide Area Network. Explain why a Wide Area Network was chosen.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

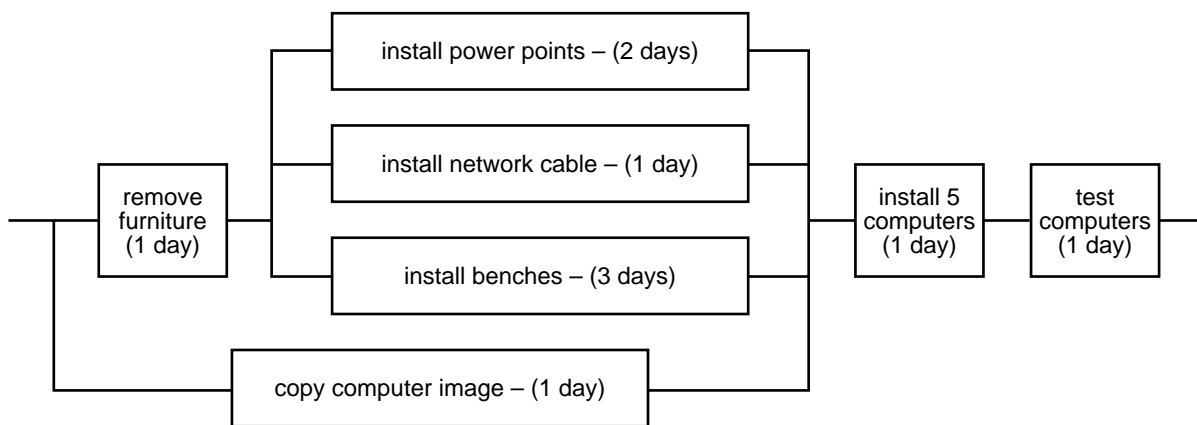
2 marks



**Question 10**

The diagrams below identify the tasks to be completed when installing a computer pod at White Hills Secondary College.

Task number	Task name	Duration (days)	Predecessors
1	notify staff of room closure	1	
2	remove furniture	1	
3	install power points	2	2
4	install network cable	1	2
5	install benches	3	2
6	copy computer image	1	
7	install 5 computers	1	3, 4, 5, 6
8	test computers	1	7



- a. Define the term predecessor.

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1 mark

- b. Identify one task that can be done at the same time as Task 3.

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1 mark

- c. Using the information above, calculate the number of days in the critical path.

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1 mark

- d. Explain whether the project will be completed on time if 'install power points' is delayed by two days.

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1 mark

**Question 11**

Chips and Bytes currently uses a login name and password strategy to secure its information. The company wants to improve its level of security and so is proposing a change to its strategy of authorising users. Recommend a different strategy of identifying users and explain two advantages and one disadvantage of the strategy chosen.

Strategy \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Advantage 1 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Advantage 2 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Disadvantage 1 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4 marks

**Question 12**

Valley View Secondary College has recently upgraded their information system. The new system has the potential to allow students, parents and staff to access the school network from home.

- a. The President of the School Council has suggested that student progress reports be made available online only and be produced twice a term instead of once a term. Discuss the implications of this proposal for staff at the college.

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3 marks

- b. The Student Representative Council has requested that the new system allow students and parents to access school files, assignments and homework outside school hours. Discuss this proposal for each user group identified.

Students \_\_\_\_\_

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2 + 2 marks

**Question 13**

Teleticket sells tickets by telephone for various theatres around Melbourne. Currently, all ticket sales are made by telephone sales assistants and are recorded manually on an order form. The order form is then passed to the postal clerk who mails the tickets out to customers. As calls are received, the telephone sales assistants walk to a diagram of the particular theatre to check which seats are available. They then colour in the seats sold. Management is keen to provide a faster service. They have employed a consultant who has recommended the installation of a local area network.

a. Describe one problem that the telephone sales assistants may experience with the current procedures.

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1 mark

b. The consultant has recommended that user documentation be provided only in electronic format. Explain one advantage and one disadvantage of this recommendation.

Advantage \_\_\_\_\_

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Disadvantage \_\_\_\_\_

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2 marks

c. Indicate the correct answer by ticking the appropriate box below.

What is the best method of evaluating the speed of the new system?

- record the number of customer complaints
- record equipment breakdowns per day
- complete a staff satisfaction survey
- record server start-up times per day
- record the number of sales made per day

1 mark

- d. Management has proposed a two-hour evening training session entitled 'Introduction to Computers' to be run at the local TAFE. This is the only formal training being offered to staff. Discuss two weaknesses of this training strategy.

Weakness 1 \_\_\_\_\_

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Weakness 2 \_\_\_\_\_

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2 marks

- e. Recommend a more suitable training strategy. Justify your choice.

Strategy \_\_\_\_\_

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Justification \_\_\_\_\_

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2 marks

**Question 14**

E-Chemist is a new Australian company that offers customers discount price medicines online, without the need for a prescription. The web site allows the user to enter symptoms and then it suggests medications which might be suitable. The customer can place different items in a shopping basket and pay for their order by providing credit card details and a membership number.

Identify and discuss two different social issues arising from the use of this web site.

Issue 1 \_\_\_\_\_

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Issue 2 \_\_\_\_\_

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4 marks

**TURN OVER**

**Question 15**

Triple Tax Time is a small accounting firm that specialises in completing taxation returns for small businesses. The files are therefore confidential and critical to meeting the demands of the Goods and Services Tax (GST). Once a month the office manager creates a tape backup of the network drive. The tape is stored on the owner’s desk.

Triple Tax Time has decided to develop a disaster recovery plan. Explain three potential threats that will need to be addressed. Recommend an appropriate strategy for each threat identified.

Threat 1 \_\_\_\_\_

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Strategy 1 \_\_\_\_\_

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Threat 2 \_\_\_\_\_

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Strategy 2

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Threat 3

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Strategy 3

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6 marks

**TURN OVER**

