



# Victorian Certificate of Education

## 2007

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

### STUDENT NUMBER

Figures

Words


Letter

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# VCE VET INFORMATION TECHNOLOGY

## Written examination

Friday 2 November 2007

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

Writing time: 3.15 pm to 4.45 pm (1 hour 30 minutes)

## QUESTION AND ANSWER BOOK

### Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	20	20	20
B	21	21	70
			Total 90

- 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 21 pages.
- Answer sheet for multiple-choice questions.

#### Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- All written responses must be in English.

#### At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

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

**SECTION A – Multiple-choice questions****Instructions for Section A**

Answer **all** questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

**Question 1**

Viruses cannot spread to USB memory sticks that are

- A. nearly full.
- B. bootable.
- C. formatted.
- D. write protected.

**Question 2**

The number of complaints per week received at a Help Desk can be used as a benchmark of its performance. Another benchmark could be

- A. the number of survey responses.
- B. the recorded average response time.
- C. the frequency of printer paper jam complaints.
- D. the number of errors in the accounting software reported by users.

**Question 3**

Current law requires that all electrical leads be 'tagged'.

What benefit does this have for users of electrical equipment?

- A. It shows when the next testing is scheduled.
- B. It increases the chance of finding an electrical fault.
- C. It shows who is responsible for purchasing the equipment.
- D. It ensures that the cables are tidy to prevent someone tripping over them.

**Question 4**

In the context of user documentation, a wizard can be defined as a

- A. form of technical reference for a software program.
- B. set of procedural standards that everyone in an organisation must use.
- C. form of online documentation that provides step-by-step assistance when creating documents.
- D. time-saving template for creating documents and worksheets that meet specific organisational standards.

**Question 5**

Virtual memory is usually found on/in the

- A. flash drive.
- B. hard drive.
- C. motherboard.
- D. DDR RAM chips.

**Question 6**

Occupational overuse syndrome (OOS) is also known as repetitive strain injury (RSI).

Which one of the following is **not** a symptom of OOS?

- A. eyestrain
- B. joint pain or swelling
- C. reduced bone density
- D. muscle or joint weakness

**Question 7**

The main purposes for user documentation in a large organisation are to provide

- A. technical specifications, understanding of what the software can do, network installation requirements.
- B. understanding of what the software can do, training for skills development, a quick reference guide.
- C. understanding of what the software can do, training for skills development, network installation requirements.
- D. training for skills development, technical specifications, a quick reference guide, understanding of what the software can do.

**Question 8**

When installing a new operating system on a computer, it is essential to

- A. install all device drivers.
- B. create a folder structure for user work files.
- C. customise the display settings for the user.
- D. load the Internet browser software with the default page.

**Question 9**

Riley has run out of hard disk space on his PC. He has a three-hour deadline for a task that requires 1 MB of free disk space.

What should he do first so that he can complete his task?

- A. restore the last system backup
- B. remove unused icons from the desktop
- C. uninstall infrequently used applications
- D. delete temporary Internet files by emptying the browser's cache

**Question 10**

Billy rings up an online music store to complain about problems playing music that he purchased from them recently. He explains that he has downloaded the music onto his computer and it plays correctly, although when he copies it to his music player, it does not play properly.

The most likely cause of this problem is that the music file

- A. is corrupt.
- B. has a virus.
- C. has copy protection.
- D. requires more memory to play.

**Question 11**

Michael is returning to work after straining his back. His doctor has recommended 'light duties' to begin with. Which of the following tasks would **not** be a suitable light task?

- A. designing a new database for storage of tape information from the nightly backups
- B. testing a new Internet browser for possible replacement of the existing browser
- C. scanning and electronic storage of warranty documents for the new workstations
- D. delivery, unpacking, checking and setup of new workstations and removing old workstations

**Question 12**

An antivirus program works by

- A. alerting you when you visit a secure web page.
- B. detecting and repairing files corrupted by a virus.
- C. either quarantining or removing most viruses that infect computers.
- D. detecting and eliminating viruses before they arrive at a network.

**Question 13**

A Help Desk operator is unsure of how to solve a problem for a client.

Which one of the following is the best way to respond to the client?

- A. 'I am sorry, your problem has a low priority.'
- B. 'I need to do some initial troubleshooting. I will call back within the hour.'
- C. 'I am not sure what to do as we are extremely busy. Can you call back within a few days?'
- D. 'I have absolutely no idea! I need to consult my boss first. Please give me a call tomorrow.'

**Question 14**

The following work practice advice was provided by a manager to the workers in an office environment.

- Vary the work and your body position: alternate screen time with hard copy reading, walking to the printer and walking to talk to people.
- Pause often or take exercise breaks if variety is not part of the job.

The manager provides this advice in order to

- A. prevent body fatigue.
- B. combat boredom in the job.
- C. provide excuses for social interaction in the office.
- D. gain the approval of the workers for his next evaluation.

**Question 15**

You receive a Help Desk call from Ellie. She is trying to scan an image and her PC has been displaying the message 'Waiting for the lamp to warm up' for over five minutes. This also happened yesterday and the problem is now urgent.

Which one of the following actions should you take?

- A. send a technician to check that the mains voltage is not too low
- B. send a technician to check and, if necessary, replace the scanner lamp
- C. advise her to close the application, reboot the system and try again
- D. describe to her how to access the system resources display, so you can find out whether her PC is overloaded

**Question 16**

Which main benefit does encryption of a hard drive provide?

- A. data that takes up less space on the drive
- B. faster data writing but slower data reading
- C. faster data reading but slower data writing
- D. data that is more protected from corporate theft

**Question 17**

A 'checkdisk' diagnostic program is used to scan the hard drive for errors.

Which of the following errors will **not** be picked up by this program?

- A. bad disk sectors
- B. physical disk errors
- C. corrupted file system indexes
- D. corrupted system configuration files

**Question 18**

Charlotte is a technical support officer at an advertising agency. The company purchased and installed new software to design and create web graphics. Charlotte attended a training course for the software, but feels the other staff she works with may find it difficult to follow the course's training materials.

To assist the people she works with, her best option would be to

- A. create a simple tutorial exercise and lead the relevant staff through it in small groups.
- B. research and purchase alternative web graphics software that is less sophisticated and more user friendly.
- C. rewrite the software so that it is easier to use and does not require people to use the training materials provided.
- D. get the software company to conduct the course again, this time as a group training session at the agency's workplace.

**Question 19**

Jacqui designs an Incident Report Form. It is used by her company's Help Desk staff to record and report on Occupational Health and Safety (OH&S) problems.

Which of the following headings should appear in the report?

- (i) nature of problem/incident
  - (ii) time lost as a result of incident
  - (iii) date, time and location of incident
  - (iv) recommendation for future training
  - (v) recommendation for alternative equipment
  - (vi) procedures in place to avoid incident
- A. (i), (ii), (iii) and (vi)
  - B. (i), (ii), (iv) and (vi)
  - C. (ii), (iii), (iv), (v) and (vi)
  - D. (i), (iii), (iv), (v) and (vi)

**Question 20**

Your Help Desk receives the following calls in quick succession.

	<b>Time</b>	<b>Location</b>	<b>Fault</b>	<b>Effect</b>
1	8.12 am	Reception	Screen will not display	Must look up telephone extensions manually
2	8.13 am	CEO's assistant	CEO cannot login	Needs to access a file for a meeting in 20 minutes
3	8.14 am	Warehouse	Laser printer will not print	Cannot print today's delivery dockets
4	8.15 am	Accounts Office	Unusual error message	Cannot print client account statements

There are two equally qualified staff, Jessica and Nathaniel, who can deal with these problems.

How should the work be assigned and in what priority order?

- A.** They should work together on the problems in the order received.
- B.** Nathaniel should work on problem 2. Jessica should work on problem 1, followed by problems 3 and 4.
- C.** It does not matter who does what. They should work independently on problems 2 and 3, followed by problems 4 and 1.
- D.** They should work together to solve problem 3, one of them should work on problem 4 and the other work on problems 1 and 2, in that order.

**SECTION B – Short answer questions****Instructions for Section B**

Answer **all** questions in the spaces provided.

**Question 1**

Give **one** method for gathering feedback from the target audience when testing user documentation designed for a specific purpose.

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1 mark

**Question 2**

Mary regularly runs a disk clean utility. Describe two things that this program is likely to do.

1. 

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2. 

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2 marks

**Question 3**

Describe two measures that could be used to demonstrate the improvement of a Help Desk service.

1. 

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2. 

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2 marks

**Question 4**

For each of the following computer-based processes, identify whether it is a batch, real time or multitasking operation. (Tick only **one** box per process.)

<b>Computer process</b>	<b>Batch</b>	<b>Real time</b>	<b>Multitasking</b>
Processing the weekly payroll	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Servicing page requests to a busy website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring the building's security system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 marks

**Question 5**

‘Rotating backup’ is a common backup strategy. Briefly describe two major features of this strategy.

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

2 marks

**Question 6**

Identify two likely OH&S risks shown in the figure below and give an explanation for each of the risks identified.



<b>Risk 1</b>	
<b>Reason for risk 1</b>	
<b>Risk 2</b>	
<b>Reason for risk 2</b>	

4 marks

**Question 7**

The following text was approved for publication in your organisation's internal staff policy documentation.

'The Internet can be accessed from all company computers. If you need help using the Internet, contact the Help Desk. Your manager can authorise individual after-hours training on request.'

The first draft was returned from the desktop publishing division looking like this.

The Internet can be accessed from all company computers. If you need help using the Internet, contact the Help Desk. Your manager can authorise individual after-hours training on request.

- a. Why should the first draft be rejected?

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1 mark

The second draft is shown below.

The Internet can be accessed from all company computers. If you need help using the Internet, contact the Help Desk. Your manager can authorise individual after-hours training on request.

- b. Why should the second draft also be rejected?

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1 mark

**Question 8**

A supermarket is trialling a self-service barcode scanner where the customers can scan in and pay for their goods. The supermarket has asked customers for feedback on the system. This feedback includes the performance of staff who give customer support.

- a. Give **one** reason why the supermarket would ask customers for feedback.

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1 mark

- b. List **two** ways in which the supermarket could ask customers for feedback.

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

2 marks

- c. The supermarket has decided to publish customer feedback statistics on its website. Give **one** reason for this action.

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1 mark

**Question 9**

Below are some types of user documentation that are commonly used in an organisation's computer system.

- Instructional material or user guide
- Training material
- Policy and procedures documents
- Quick Keys and main functions card
- Troubleshooting guide
- Online help
- Hypertext

- a. Choose three types of user documentation from the list and for each one **explain** its main purpose or application in a workplace setting.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

3 marks

- b. Why should the person designing and creating the user documentation investigate documentation standards and industry standards?

\_\_\_\_\_

\_\_\_\_\_

1 mark

**Question 10**

A new version of the Operating System (OS) your organisation uses will be released soon.

- a. Before authorising the upgrade, list two things you would need to consider.

1. \_\_\_\_\_

2. \_\_\_\_\_

2 marks

- b. You discover that the new OS backup system is incompatible with the current backup system. Suggest two different strategies you could use to overcome this problem.

1. \_\_\_\_\_

2. \_\_\_\_\_

2 marks

**Question 11**

All of the salespeople at Daisy’s Dolls use the same password to login and record sales. Management wants to reward the staff members who sell the most but cannot do this unless each member has their own login and password. Two password systems are under consideration.

**System 1**

Passwords must be at least eight characters, must contain at least three letters, at least three numbers and at least one special character. Users must change their password once a week; the new password must have every character different to the old one. The password cannot be the same as one the user has used previously.

**System 2**

The user must select a password from a randomly created online list. Once selected the password disappears from the list. Users must change their password at the start of every month.

Give **one** advantage **and one** disadvantage for each system.

<b>System 1 Advantage</b>	
<b>Disadvantage</b>	
<b>System 2 Advantage</b>	
<b>Disadvantage</b>	

4 marks

**Question 12**

Three computer setup options are given in the following table.

<b>Option A</b>	Computer dual booting into either a Windows or Linux operating system
<b>Option B</b>	Computer booting into Linux, with a Windows operating system running as a virtual computer within Linux
<b>Option C</b>	Computer booting into a Windows operating system, with Linux running as a virtual computer within the Windows operating system

Consider each of the statements in the table and then select option A, B or C as the best computer setup to use in each situation given below.

- a. A computer for a user who needs a secure environment for Internet banking and occasionally uses Windows programs

Best option \_\_\_\_\_

Reason \_\_\_\_\_

\_\_\_\_\_

2 marks

- b. A computer used for testing new workstation installations for a medium-sized business

Best option \_\_\_\_\_

Reason \_\_\_\_\_

\_\_\_\_\_

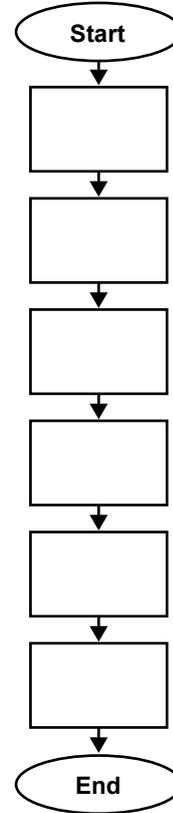
2 marks

**Question 13**

Alex is responsible for producing user documentation for software used by a large organisation. He usually uses a standard documentation procedure involving a number of steps. A set of steps for this process is given below, but they are in the wrong order.

a. Enter the **step numbers** in the correct order in the **flowchart** diagram provided.

Step number	Step
1	Create appropriate user documentation.
2	Gather user feedback, make adjustments as necessary and seek final approval from the supervisor.
3	Submit user documentation to the target audience for review.
4	Investigate documentation and industry standards and apply appropriately for user documentation required by the organisation.
5	Determine organisation documentation requirements.
6	Design documentation templates and seek approval from the supervisor.



3 marks

b. Why is it important for Alex to follow a standard procedure when creating user documentation?

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1 mark

**Question 14**

There are different types of OH&S hazards present in a typical computerised office setting that employees should look out for. Most hazards fit into the following categories.

- mechanical
- ergonomic
- chemical
- psychological

Match each type of hazard to one of the examples given in the table below.

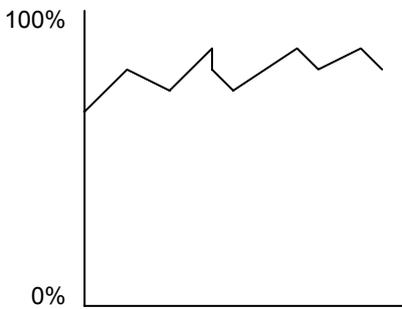
Type of hazard	Examples
	Dust or vapours in the air – for example, photocopier toner, paint, solvents, varnish, cleaning fluids such as ammonia
	Work performance pressure, lack of job satisfaction, boredom from lack of variety and repetitive work, workplace harassment, fatigue from long shifts
	Heavy and/or overflowing shelves, equipment not stacked properly, poorly stored filing cabinet drawers that could tip if pulled out too far, tripping hazards from poorly placed cables, burning hazard from the hot components of photocopiers and laser printers, poor placement of ventilation outlets
	Poorly designed chairs that do not provide adequate back support, glare or excessive reflection from monitors, poor work practice procedures that involve prolonged standing or work in a fixed posture or a repetitive set of actions that could cause injury

3 marks

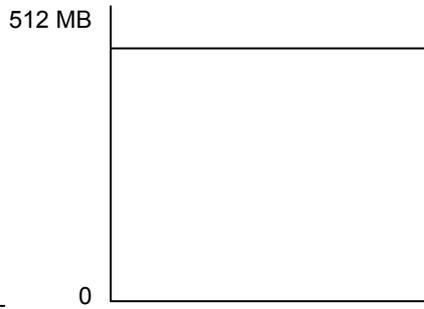
**Question 15**

You use a systems diagnostic tool that monitors your computer resources in real time. Your computer hardware includes a Pentium 4 3.0 GHz, 512 MB RAM and 120 GB SATA hard disk running at 10 000 rpm with 16 MB cache.

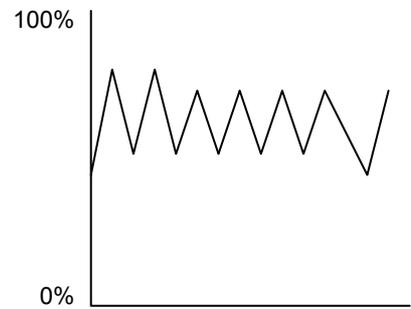
Some graphs of your computer resources are shown below.



**CPU**  
Percentage usage vs time



**Physical memory**  
MB usage vs time



**Hard disk**  
Percentage activity vs time

a. From the graphs above, identify two problems that the computer has.

1. \_\_\_\_\_

2. \_\_\_\_\_

2 marks

b. Suggest **one** solution you could apply to fix one of the problems given in **part a**.

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

1 mark

**Question 16**

The table below shows part of a typical Help Desk log. Fill in the blanks with the most appropriate description of either the **problem** or the **solution**.

<b>Date</b>	<b>Time</b>	<b>Name</b>	<b>Problem</b>	<b>Solution</b>
1/11/2007	9.05	Susan	She is trying to scan a photo using a scanner but is not sure how to do it.	
1/11/2007	11.15	Steve		Reset Steve's network password on the domain 'Work'.
1/11/2007	12.30	Agatha	She has complained about a lot of messages popping up on her screen saying 'Abracadabra'.	
1/11/2007	13.30	Trinh	She finds her computer slow. She can see and hear that her hard disk seems to be working all the time, especially when she has a few programs open at once.	
1/11/2007	14.10	Ramesh		Replaced a faulty patch cable connected to the network interface card on his computer.
1/11/2007	14.30	George	He has complained about an error on his laser printer. It is saying 'Please load A4'.	

6 marks

**Question 17**

Employers have a duty of care to provide a healthy and safe working environment under occupational health and safety legislation and common law.

The *Occupational Health and Safety (Commonwealth Employment) Act 1991* (the Act) states that an ‘employer must take all reasonable practicable steps to protect the health and safety at work of the employer’s employees’ (section 16 of the Act).

The employer’s general duties are broad and continuing. They require employers to do all that is reasonably practicable to set up a working environment that is safe and without risks to the health of employees, contractors and other persons in or near the workplace. Managers and supervisors need to be aware they are not only responsible but also accountable for this duty of care. Employees also have obligations under legislation.

Source: *Officewise Office Safety: A Guide to Health and Safety in the Office*, Comcare, 2002

- a. Give **one** obligation that an employee has regarding Occupational Health and Safety in a computerised office environment under this legislation.

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1 mark

- b. Employers are required to provide information, training and supervision so that employees can perform their work in a safe manner. Suggest three things that should be included in Occupational Health and Safety training.

1. \_\_\_\_\_

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2. \_\_\_\_\_

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3. \_\_\_\_\_

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3 marks

- c. Why is it important for employers to keep information and records relating to the health and safety of employees?

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1 mark

**Question 18**

When a draft of user documentation is produced, there are a number of aspects of the document that need to be checked before it goes into production. Two of these aspects are **purpose** and **content**.

- a. Name one other important aspect of the draft.

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1 mark

- b. Explain why the aspect named in **part a.** is important.

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1 mark

**Question 19**

You wish to purchase a new operating system. The supplier has provided the following system information.

Requirement	Minimum	Recommended
CPU	1.0 GHz	3.2 GHz
HDD space used during setup	32 GB	45 GB
HDD space in use after setup	11.2 GB	20 GB
RAM	512 MB	1 GB
Optical drive	48 × CD drive	2 × DVD drive
Audio hardware	Stereo sound capable	7.1 sound capable
Video hardware	Capable of OpenGL	Capable of OpenGL
Internet connection	Dialup	Broadband

- a. If a basic user purchases a computer with the **minimum** system requirements, describe what tasks they will typically use it for.

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1 mark

- b. If an intermediate user purchases a computer with the **recommended** system requirements, describe what tasks they will typically use it for.

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1 mark

**Question 20**

William copies a friend's commercial DVD movie onto a blank DVD-RW. When he tries to play it on the DVD player attached to his television, it does not work. The original DVD movie plays correctly on both his computer and his television/DVD player.

- a. What is the most likely problem with the copied DVD?

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1 mark

- b. What is the most appropriate way for William to solve this problem? Give a reason for your answer.

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2 marks

**Question 21**

Adswerk Limited is a small graphics business specialising in short movie and video advertisement creation. Its graphics designers have PCs containing three hard disk volumes.

These contain

Volume 1 – the operating system and applications software

Volume 2 – data files used to create the videos, which are output to DVDs

Volume 3 – temporary files created by the applications during production.

Describe and justify a backup strategy for each volume of the Adswerk PCs by completing the table below.

Volume	Backup strategy	Reason for backup strategy
1		
2		
3		

6 marks