



# Victorian Certificate of Education 2013

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

## STUDENT NUMBER

Letter

Figures

Words


# VCE VET INFORMATION TECHNOLOGY

## Written examination

Thursday 7 November 2013

Reading time: 9.00 am to 9.15 am (15 minutes)

Writing time: 9.15 am to 10.45 am (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	19	19	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 19 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**

Which one of the following is an early symptom of Occupational Overuse Syndrome (OOS)?

- A. hernia
- B. whiplash
- C. skin irritation
- D. muscle discomfort

**Question 2**

Which one of the following operating systems is both open-source and free?

- A. DOS
- B. Android
- C. Mac OS X
- D. Windows 8

**Question 3**

A mouse wrist rest, an ergonomic keyboard and an ergonomic adjustable chair are used to

- A. improve the poor morale of many computer users.
- B. reduce the cost when employing support staff for a Help Desk.
- C. reduce user error, fatigue and discomfort when using computers.
- D. provide economic and competitive standards for many computer users.

**Question 4**

When contacted with a new problem, the Help Desk operator should

- A. obtain client feedback.
- B. issue the client with an evaluation form.
- C. contact the software application supplier.
- D. check logs for similar problems or client requests.

**Question 5**

Which one of the following is a day-to-day guide to completing tasks?

- A. a brochure
- B. a wall chart
- C. a training manual
- D. a technical manual

**Question 6**

A company that Ashna's Help Desk supports has reported that its employees are receiving many emails that request the employees' bank account login details.

What should Ashna advise the company to do?

- A. activate the junk mail filter
- B. upgrade the company's firewall software
- C. activate the real-time email virus checker
- D. activate the browser's anti-spam facilities

**Question 7**

Rajeev was working alone one evening, upgrading hardware in a room containing 12 computer workstations. The room's entrance has an emergency room power-off switch, a break-the-glass fire alarm, and two fire extinguishers, one for electrical fires and one for other fires.

While Rajeev was working, he suddenly smelt smoke and saw it rising from another computer in the room.

What is the most appropriate sequence of actions for Rajeev to take before he evacuates the building?

- A. Activate the fire alarm.  
Turn the power off with the emergency power-off switch.  
Contact building security on the after-hours number.  
Attempt to put out the fire safely, using the electrical-fire extinguisher.
- B. Activate the fire alarm.  
Attempt to put out the fire safely, using the electrical-fire extinguisher.  
Turn the power off with the emergency power-off switch.  
Contact building security on the after-hours number.
- C. Attempt to put out the fire safely, using the electrical-fire extinguisher.  
Turn the power off with the emergency power-off switch.  
Contact building security on the after-hours number.  
Activate the fire alarm.
- D. Activate the fire alarm.  
Contact building security on the after-hours number.  
Attempt to put out the fire safely, using the electrical-fire extinguisher.  
Turn the power off with the emergency power-off switch.

**Question 8**

An example of preventative maintenance would be to run a defragmentation program when

- A. files are slow to open.
- B. the computer starts up.
- C. the user has trouble logging in.
- D. when the user complains that the computer runs slowly.

**Question 9**

Which one of the following processes can be completed without specific safety procedures?

- A. replacing a laser printer's waste toner bottle
- B. replacing a CRT monitor with an LCD monitor
- C. installing an antivirus program on 20 computers
- D. replacing the RAM on the motherboard of a computer

**Question 10**

Annette is responsible for her company's backups.

The best way for Annette to protect the data is to complete

- A. a full backup daily, stored off site.
- B. a full backup monthly, stored off site.
- C. an incremental backup daily, stored on site, and a full backup monthly, stored off site.
- D. an incremental backup daily and a full backup weekly, with the weekly backup stored on site.

**Question 11**

Which one of the following hard drive problems is hardware related?

- A. burnt-out drive motor
- B. hard disk that is badly fragmented
- C. hard disk that is formatted with the wrong file system
- D. hard drive that is in conflict with another hardware component

**Question 12**

Bill is upgrading his desktop computer to run a new 64-bit computer-aided design package. The software manual recommends a minimum of 6 GB RAM and preferably 8 GB RAM.

Bill wants to spend as little money as possible.

The details of Bill's current computer are as follows.

- 32-bit CPU
- 32-bit motherboard
- 4 GB RAM
- 17-inch CRT monitor
- 500 GB, 5400 rpm hard drive

Which one of the following upgrades best meets Bill's requirements?

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>A. additional 512 GB solid-state drive<br/>additional 4 GB RAM<br/>new 64-bit CPU and motherboard</li><li>C. new 20-inch flat screen monitor<br/>additional 4 GB RAM<br/>new 64-bit CPU and motherboard</li></ul> | <ul style="list-style-type: none"><li>B. new 20-inch flat screen monitor<br/>additional 1 TB, 7200 rpm hard drive<br/>additional 2 GB RAM</li><li>D. new 20-inch flat screen monitor<br/>additional 2 GB RAM<br/>new 64-bit CPU and motherboard</li></ul> |
|---|---|

**Question 13**

In a large organisation, user documentation provides

- |   |  |
|---|--|
| <b>A.</b> a quick reference guide<br>training for skills development<br>a description of what the software can do.    | <b>B.</b> a quick reference guide<br>technical specifications<br>training for skills development.                            |
| <b>C.</b> network installation requirements<br>technical specifications<br>a description of what the software can do. | <b>D.</b> network installation requirements<br>training for skills development<br>a description of what the software can do. |

**Question 14**

An organisation has deployed new laptops, with a new pre-installed operating system, to its 47 employees. Most of them are having problems using the new operating system.

The best way to provide answers to these problems is to

- A.** visit each employee.
- B.** send each employee a user manual.
- C.** run group training sessions for all employees.
- D.** log all emails and answer them in order of receipt.

**Question 15**

Jayden replaced a failed hard disk in Rani's computer and reinstalled the operating system by ghosting the hard disk from a machine that was nearby.

Rani used the computer that was repaired and found that she could neither print to her printer nor access the network. Everything else worked.

The best course of action for Jayden to take is to

- A.** give Rani an evaluation form and ask her to complete it.
- B.** provide Rani with one-on-one training on how to use the computer.
- C.** review the hardware and driver documentation for the computer, and customise the operating system.
- D.** reinstall the operating system from original disks because there was a fault with the copied operating system.

**Question 16**

Joanna was creating printed user documents for a new company. The company had no documentation standards, but suggested that its documents should use either 11-point Times (a serif font) or 11-point Arial (a sans serif font).

What is the main reason why Joanna would decide to use the 11-point Times font?

- A.** Style guides are designed with serif fonts.
- B.** Documents in serif fonts have improved readability.
- C.** Times is narrower than Arial, so printing the document will use less ink.
- D.** The Times font has more style options, such as bold, italic and varying weights.

**Question 17**

Denise is the chief designer at an advertising agency that has installed new software to design and create web graphics. She attended a training course for the software, but felt her staff would find it difficult to follow the training materials that were provided.

To assist her staff with completing their design tasks efficiently, her best option is to

- A. develop a set of macros for common tasks and for frequently used complex tasks.
- B. purchase different web graphics software with simpler features that is easier to use.
- C. create simple tutorial exercises and lead the relevant staff through them in small groups.
- D. get the software company to conduct the course again as a group training session at the agency.

**Question 18**

Many functions are useful to protect home computers that are used for email and general internet use.

Which one of the following lists the functions from most important to least important?

- A. antivirus, anti-spam, anti-spyware, firewall, anti-adware, cookie blockers
- B. antivirus, firewall, anti-spam, anti-adware, anti-spyware, cookie blockers
- C. firewall, antivirus, anti-adware, anti-spam, cookie blockers, anti-spyware
- D. firewall, antivirus, anti-spyware, anti-spam, anti-adware, cookie blockers

**Question 19**

Stephen asked his classmate, Violet, to upgrade the DVD drive on his laptop to a Blu-ray drive. Stephen later discovered that the Blu-ray drive that was installed was not compatible with the laptop and its motherboard was damaged.

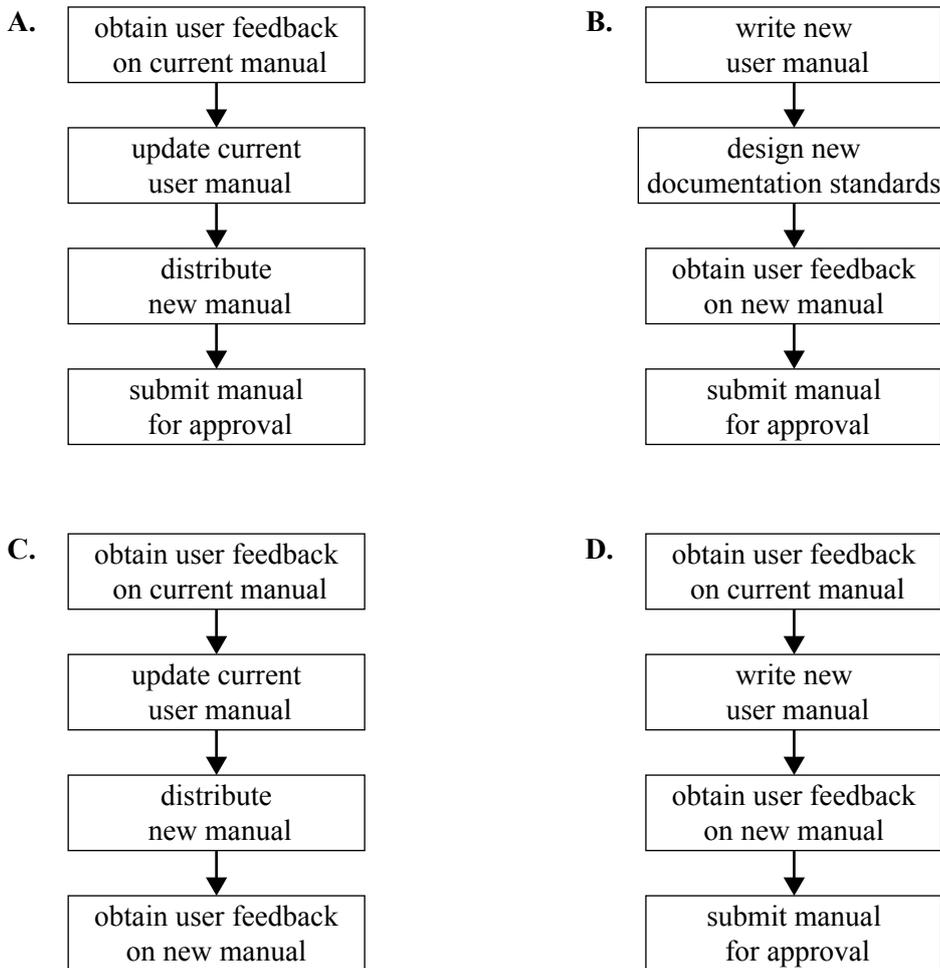
Considering standard warranty conditions, what advice would you give Stephen about his laptop?

- A. Violet would have to pay for all repairs as the warranty would be void.
- B. Stephen would have to pay for all repairs as the warranty would be void.
- C. A complete repair would be carried out under warranty at no cost to Stephen.
- D. The warranty would cover the cost of parts and Stephen would have to pay for labour.

**Question 20**

Joel's organisation has an old database that is undergoing major modifications and upgrades. Joel's task is to replace the database's user manual.

Which of the following is the most appropriate sequence of tasks for Joel to undertake?



**SECTION B – Short-answer questions**

**Instructions for Section B**  
Answer **all** questions in the spaces provided.

**Question 1** (3 marks)

Explain the main workplace purpose or application of each of the following.

- hypertext

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- instructional material or user guide

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- policy and procedure documents

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**Question 2** (3 marks)

The image below shows a user at a workstation.



List three good Occupational Health and Safety (OH&S) features that are displayed in the image.

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

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

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

**Question 3** (3 marks)

Victor was asked to create documentation for a new game. His task was to create documentation that

- instructs users how to install the game
- shows at a glance all the controls that are used in the game
- contains basic contact information for problem resolution.

a. What is the name of the type of documentation that Victor was asked to produce? 1 mark

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b. What type of user is the documentation written for? 1 mark

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c. Choose the best medium to use for this documentation. Justify your choice. 1 mark

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**Question 4** (2 marks)

Many offices have replaced older CRT monitors with LCD or LED monitors. This change means that the depth, from front to back, of the work surface can be smaller.

Give one advantage and one disadvantage of reducing the depth of the work surface.

advantage \_\_\_\_\_

disadvantage \_\_\_\_\_

**Question 5** (2 marks)

Some design specifications for user documentation are

- conventions
- format
- graphics
- topics.

Select two of the design specifications from the list above and explain what each means.

design specification 1 \_\_\_\_\_

explanation \_\_\_\_\_

\_\_\_\_\_

design specification 2 \_\_\_\_\_

explanation \_\_\_\_\_

\_\_\_\_\_

**Question 6** (4 marks)

A workplace is about to employ a disabled person who is confined to a wheelchair.

List four things that need to be checked from an OH&S perspective to ensure that the workplace is suitable for this new employee. At least two of the answers must relate specifically to the IT workplace environment.

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

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

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

4. \_\_\_\_\_

**Question 7** (4 marks)

At 9.00 am the Help Desk received three calls in quick succession.

- The Human Resource Manager cannot access her emails to extract information for several job interviews that she is conducting, which start at 2.00 pm today.
- The Payroll Manager's database is corrupt and he cannot produce the payroll file that he must send to the bank at 4.00 pm.
- The General Manager's printer will not power on and he needs to print some documents for a board meeting at 3.00 pm.

- a. Identify the caller whose problem should be of highest priority to the Help Desk by ticking (✓) the relevant box below.

2 marks

Human Resource Manager

Payroll Manager

General Manager

Briefly describe the most likely solution to this caller's problem.

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- b. Identify the caller whose problem should be of second-highest priority to the Help Desk by ticking (✓) the relevant box below.

2 marks

Human Resource Manager

Payroll Manager

General Manager

Briefly describe the most likely solution to this caller's problem.

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**Question 8 (6 marks)**

The following sequence of steps outlines a workable fault-finding system.

- 1.
- 2. Check power is on
- 3.
- 4.
- 5. Stress test hard disk, CPU, cards, RAM and motherboard
- 6.
- 7. Back up system files
- 8. Investigate hard disk drive with disk-checking tool
- 9. Run disk cleanup utility
- 10.
- 11.
- 12. Document solution

**a.** The following steps are missing from the sequence above.  
Write the letter of each step in the boxes above to complete the sequence in the correct order.

4 marks

- A. Run antivirus software
- B. Check antivirus software
- C. Check components and peripheral devices are connected
- D. Make sure all components are there
- E. Check all software is running properly
- F. Investigate logs for previous occurrence of problem

**b.** Explain why step 7 is undertaken before step 8.

1 mark

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**c.** What is the purpose of step 9?

1 mark

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**Question 9 (2 marks)**

Explain the difference between a multi-tasking system and a batch system.

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**Question 10** (4 marks)

Tick (✓) **four** boxes below.

What are **four** reasons for obtaining feedback from clients about their experience with using a new operating system?

- Feedback can easily be gathered through surveys, interviews and meetings.
- Feedback helps IT staff evaluate their ability to meet clients' needs.
- Feedback helps protect clients' files from unlicensed software broadcasting their work over the internet.
- Feedback might identify clients' poor work processes. This would allow IT staff to provide remedial one-on-one training.
- Feedback allows IT staff to prevent their clients from suffering identity theft due to operating system faults or bugs.
- IT staff should obtain feedback as a professional responsibility.
- A feedback survey may encourage clients to try out relevant features of the new operating system.

**Question 11** (3 marks)

Identify the process in creating user documentation that is being undertaken in each of the following activities.

- Your client has put together a software package. You review the package to determine what you need to include in the user documentation.

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- You have finalised all the documentation requirements and give them to the Chief Executive Officer for approval and publication.

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- You use a web-authoring package to create the documentation and it is now available for review.

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**Question 12** (5 marks)

The following list describes some software functions.

<b>Letter</b>	<b>Description</b>
A	organises the sections of the files on a hard drive in such a way as to maximise the speed at which the drive can read the file
B	writes backed-up copies of essential files over the existing copies of those files
C	looks for damaged files on a hard drive, attempts to recover the damaged file onto a different section of the hard drive and then marks the damaged section of the hard drive as unusable
D	checks on the internet for the latest version of a file and installs it if necessary
E	reads the data in a file and then rewrites it over the top of the existing data to strengthen the fading magnetic pattern
F	moves all files to the start of the hard drive
G	finds the parts of files that have been deleted and recovers the files
H	removes all entries from the disk catalogue and marks all used disk sectors as available
I	checks files for content that might damage the computer

Five software functions are named below. Using the list above, write the letter representing the best description of each function in the table, next to its name.

<b>Name</b>	<b>Letter</b>
Virus Detector	
System Restore	
Application Updater	
File Recovery	
Disk Format	

**Question 13** (4 marks)

Simone is concerned that her home computer is not backed up as the computers at work are.

- a. Explain an appropriate backup frequency for Simone's computer. 1 mark

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- b. Simone has spoken to her friends, who suggested the use of either external drives or cloud services to back up her computer.

Explain the advice that you would give Simone about where to store her backups. 1 mark

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- c. List and justify the types of files and/or folders on Simone's computer that should be backed up. 2 marks

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**Question 14** (2 marks)

List two items of OH&S equipment that are required at a workstation where the repair and maintenance of computers and printers are conducted.

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

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

**Question 15** (4 marks)

The following are some commonly used computer phrases.

Rewrite them in everyday English so that a novice user can understand what is meant by each phrase.

Phrase	Everyday English
google it	
the URL for the website	
power cycle the printer	
check the metadata for the version	

**Question 16** (4 marks)

Many Help Desks have a service level agreement.

a. With whom is a service level agreement usually made? 1 mark

\_\_\_\_\_

b. Why is such an agreement needed? 1 mark

\_\_\_\_\_

\_\_\_\_\_

c. Give two examples of items that are typically found in a service level agreement. 2 marks

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

\_\_\_\_\_

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

\_\_\_\_\_

**Question 17** (7 marks)

A new operating system is to be installed on 78 client computers in a graphic design business.

The hardware and software are the same for all client workstations.

- a.** List and explain the file system requirements and the process of customisation of memory management. 2 marks

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- b.** Suggest installation methods that will minimise disruption to users during installation. 2 marks

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- c.** Outline a plan for training users in how to use the new operating system. 1 mark

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- d.** When and how should users be contacted to see how the new system is performing? 2 marks

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**Question 18** (5 marks)

Jennifer is seeking to replace the Maceyphone 2 smart phone that is used by the sales department’s staff. She has the budget to buy either the Caleyphone or Maceyphone 3 smart phones, but is unsure how to proceed. Caleyphones use a different operating system from Maceyphones.

She asked Heng, Head of Information Services, to give her advice about which product to buy.

- a. List four questions that Heng should ask the sales staff to help him determine what their hardware and software requirements are when using a smart phone. The answers to these questions will help Heng determine the advice that he gives to Jennifer. 2 marks

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_

- b. Jennifer has decided to replace the sales staff’s phones with the Caleyphone. List **one** technical concern that Heng might have about the rollout of the Caleyphone. 1 mark

\_\_\_\_\_

\_\_\_\_\_

- c. Give **two** examples of the support that Heng needs to provide to the sales staff in order to facilitate the upgrade. 2 marks

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Question 19** (3 marks)

George's company is planning to install computers at its production line. They will be used to record the progress of products in the manufacturing process. The company has existing OH&S policies relating to conducting office work on computers; however, these are inadequate for the stand-up, non-workstation, production line environment.

- a. Briefly outline the processes that George needs to undertake in order to determine the new OH&S policies for the use of computers in the manufacturing process. 2 marks

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- b. Which is the better way for George to create the new OH&S policies?  
Tick (✓) a box below to select one action and give a reason for your answer. 1 mark

- update the existing office OH&S policies
- create OH&S policies for the manufacturing process

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