**Victorian Certificate of Education
2008**

STUDENT NUMBER

Letter

Figures

Words

VCE VET INFORMATION TECHNOLOGY

Written examination

Monday 17 November 2008

**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

Section	Number of questions	Number of questions to be answered	Number of marks
A	20	20	20
B	22	22	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** for 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

Jane works in an office and has had some introductory level training in using word processing and spreadsheet software. A new desktop publishing package has just been installed on Jane's computer at work and she will need some training to be able to use it effectively as part of her work.

Jane could be described by her manager as which one of the following types of computer user?

A. novice

B. expert

C. super user

D. intermediate

Question 2

A major reason to implement OH&S standards is to

A. improve workplace productivity.

B. provide a comfortable workplace.

C. protect workers from avoidable injury.

D. prolong the usable life of computer equipment.

Question 3

Monique calls the Help Desk to complain that her system is running slowly. When asked, Monique mentions that she has several applications running in the background.

The best way to provide an immediate solution to Monique's computer problem is to advise her to

A. delete some temporary files.

B. increase the virtual memory.

C. upgrade the computer's hard disk.

D. shut down some unnecessary applications.

Question 4

Comparing actual Help Desk performance to industry-based key performance indicators is an example of

A. user feedback.

B. benchmarking.

C. quality control.

D. management by objective.

Question 5

Virtual memory is used when the computer

A.   is running very quickly.

B.   is running at its optimum.

C.   runs out of hard disk space.

D.   runs out of physical memory.

Question 6

Which of these styles is most likely to create a document that is easy to read and easy to understand?

A.   All A4 pages contain at least two columns.

B.   All headings are in bold script and capitals.

C.   All body text is a 12 point serif font, such as Times.

D.   All paragraph text is formatted in double-line spacing.

Question 7

Mark opens an email attachment. His company's antivirus software displays a message on his screen about a virus being in the attachment.

What is the **best** action Mark could take?

A.   use an antivirus program to scan his computer

B.   close the attachment and report it to the Help Desk

C.   update his computer's antivirus software and reboot

D.   close the attachment, log off and reboot his computer

The following information refers to Questions 8 and 9.

Marcel, a computer technician, recently replaced a faulty power supply unit in a computer box. He decided to carry the box from his workbench to the office where it was to be installed. Unfortunately, he accidently dropped the computer box on his foot on the way.

Question 8

After seeking medical attention for his foot, the next step in the OH&S procedure Marcel should take would be to immediately

A.   pick up the computer box and install it as planned.

B.   fill out an accident report form and submit it to his supervisor.

C.   attend a manual handling course to learn how to move heavy objects safely.

D.   go home and put his injured foot up on a pillow so that it heals more quickly.

Question 9

The most appropriate way to avoid any injury would be to

A.   get the supervisor to move the computer box for him.

B.   use a trolley to move the computer box safely.

C.   ask another technician to help move the computer box.

D.   ask the user to come and collect the computer box from the technician's workshop.

Question 10

Two weeks after installing a new web browser on all office computers, the Help Desk sent all users an email questionnaire about the browser.

The Help Desk did this to

A.   validate the users' email addresses.

B.   check that the users can read and reply to emails.

C.   find out whether the users have any problems with the browser.

D.   obtain details of the users' computer configurations for the Help Desk database.

Question 11

Peripheral devices, such as scanners or printers, require software drivers.

The most likely time a new driver will be required is when

A.   a new device is installed.

B.   a Core 2 CPU is installed.

C.   a new version of the operating system is installed.

D.   a faulty device is replaced with one of the same make and model.

Question 12

A task manager is a diagnostic program used to display which software applications are running on a computer system. Tasks running on a particular computer are shown in a table, such as the one below.

Task / Application	Status
Word processing document	Running
Internet browser	Not responding

Looking at the list of tasks, the problem with the Internet browser is that the

A.   Internet is not connected.

B.   Internet is currently down.

C.   browser needs an upgrade.

D.   browser has hung or is frozen.

Question 13

When you work on a Help Desk, **escalating** a problem means to

A.   make the problem worse than when it was first reported.

B.   record the nature of the problem so that it can be dealt with later.

C.   inform the client that you will get back to them as soon as possible.

D.   hand the problem on to a technician with more experience, such as your supervisor.

Question 14

Smurf's Welding Company is planning to add VOIP to its telephone system.

What does VOIP stand for?

A.   Voice Over Internet Phone

B.   Voice Over Intercom Phone

C.   Voice Over Internet Protocol

D.   Voice Over Intercom Protocol

Question 15

Josh is about to create a series of online help pages for his company intranet.

Which one of the following features will be most helpful in creating a consistent layout and appearance?
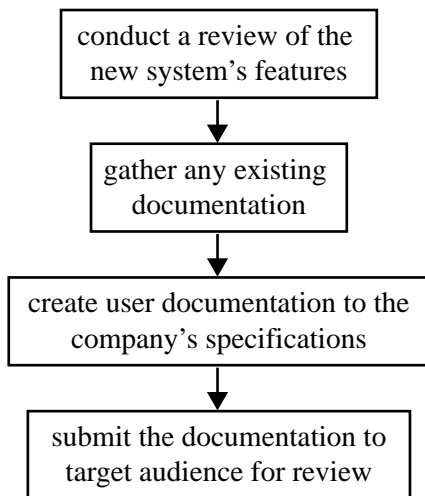
A. Cascading Style Sheets (CSS)

B. a wide range of installed fonts

C. a high-level interactive HTML editor

D. a good reference book on advanced HTML
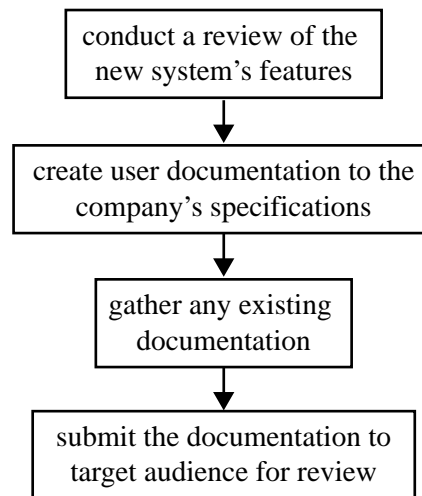
Question 16

A company has just installed a new data entry system for customer orders. In order to efficiently create documentation for its data entry operators, the company should follow four major steps.

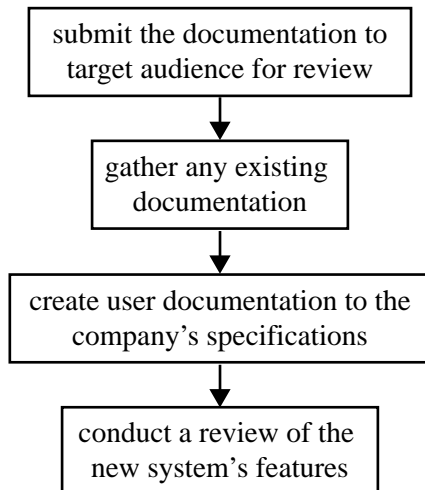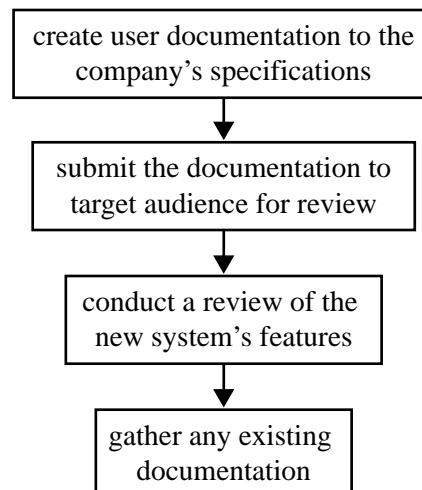The best description of the documentation process is

A.

conduct a review of the
new system's features

↓

gather any existing
documentation

↓

create user documentation to the
company's specifications

↓

submit the documentation to
target audience for review

B.

conduct a review of the
new system's features

↓

create user documentation to the
company's specifications

↓

gather any existing
documentation

↓

submit the documentation to
target audience for review

C.

submit the documentation to
target audience for review

↓

gather any existing
documentation

↓

create user documentation to the
company's specifications

↓

conduct a review of the
new system's features

D.

create user documentation to the
company's specifications

↓

submit the documentation to
target audience for review

↓

conduct a review of the
new system's features

↓

gather any existing
documentation

Question 17

Rosemary's grandparents want to be able to send her emails and receive her replies.

The best level of support for them when they connect to the Internet for the first time is

A. a technician to install quality equipment and instruct them in its use.

B. equipment provided by Rosemary's parents and instructions from Rosemary.

C. pre-configured equipment with point-by-point instructions and instructions from Rosemary.

D. pre-configured equipment with point-by-point instructions and enrolment in a beginners' Internet class.

Question 18

Harry calls the Help Desk complaining about the number of operating system updates he receives each week via the Internet. These cause his computer to operate slowly and sometimes it needs to be rebooted.

The best explanation to give Harry is that the updates

A. are for security and to fix errors.

B. make the computer run a lot faster.

C. help the computer to run more smoothly.

D. help improve the computer's ability to multitask.

Question 19

An IT company provides IT Help Desk service to a number of companies. Staff working on the Help Desk need to have certain types of documentation readily available to help solve clients' problems over the phone.

The list giving the **most** important examples of documentation for the operation of the Help Desk is

A. client request logs, daily running sheet, client database, support contracts.

B. client request logs, backup logs, employee database, training courses available.

C. daily running sheet, training courses available, client database, owner manuals.

D. client request logs, daily running sheet, industry standard contacts, training records.

Question 20

An unusual attachment arrives via email and when Rose opens it nothing appears to happen. However, ten minutes later Rose's computer shuts down the sales proposal she is working on and suddenly the Solitaire game starts up. This makes her suspect a virus.

There is a virus checker on Rose's computer and there is also a virus check that occurs on the email server for all incoming emails.

Which of the following is the **best** action to take?

A. manually test the attachment with the antivirus program and if no virus is found then ignore it

B. put the attachment into a passworded zip file and send it to the antivirus company for checking

C. disconnect the computer from the network and report the unusual event to her supervisor

D. disconnect the computer from the network, quarantine the computer until new testing software is available, and report the problem to her supervisor

END OF SECTION A

SECTION B – Short answer questions

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

Question 1

After user documentation has been created, why is it important to review and obtain sign-off from the target audience?

_____

1 mark

Question 2

During the initial meeting with a client, it is important to determine the requirements of a project, including any constraints or limitations. Apart from the budget available, name one other constraint that should be included in the requirements of most information management projects.

_____

1 mark

Question 3

a. The diagram above represents a person working at a computer workstation. Identify **three** examples of bad ergonomic practice.

_____

_____

_____

3 marks

b. This person uses a mouse as a pointing device on the computer and has a sore elbow. The OH&S representative at the company has asked them to try a track ball or touch pad as an alternative. What is the benefit of this?

_____

_____

1 mark

Question 4

Computer-based processes are categorised as **batch**, **real time** or **multitasking**.

a. Describe **two** differences between a real time system and a batch system.

_____

_____

_____

_____

2 marks

b. Give **two** examples of a real time system.

_____

_____

2 marks

Question 5

A bank is trialling a new feature on its Internet banking website.

a. Give **one** way that the bank could get feedback about the feature from its customers.

_____

1 mark

b. What sort of support could the bank provide if customers were having trouble giving feedback to the bank?

_____

1 mark

c. Why is getting feedback from clients valuable to the bank?

_____

_____

_____

1 mark

Question 6

A memo has been issued by a Help Desk informing users that the operating system will be upgraded next week. List **three** things that will help users have a smooth transition during and after the upgrade.

1. _____

2. _____

3. _____

3 marks

Question 7

The production manager in your company has asked you whether he should be performing full or incremental backups.

a. What is the main feature of an incremental backup?

_____

_____

1 mark

b. Give **one** disadvantage of incremental backups.

_____

_____

1 mark

Question 8

The table below shows some processes that are running in the background on a server.

Process	User	CPU %	Memory	Description
OpenWord	Bruce	3	15 000 KB	Word processing application
Ibrowse	Solomon	2	35 000 KB	Internet browser
System	System	5	10 000 KB	Operating system (kernel)
Optimise	Nick	90	200 000 KB	Unknown process

Some users complain to the Help Desk that it takes too long to log in and that Internet access is slow.

a. What is the cause of this problem?

_____

_____

1 mark

b. How could the Help Desk fix the immediate problem?

_____

_____

1 mark

c. List **two** things that the Help Desk could do to prevent this problem from happening again.

1. _____

2. _____

2 marks

Question 9

Ashley has received a laser pointer to use with his digital presentations to management. He also enjoys playing with it in the office. He often flashes it around the walls, the ceiling and at other people's screens.

a. Explain the problem with this behaviour.

_____

_____

_____

1 mark

The management team has been informed of his use of the pointer in the general office area and has asked the OH&S manager to deal with it.

b. How should the OH&S policy be updated to cover this kind of behaviour?

_____

_____

_____

_____

2 marks

Question 10

An Australia-wide company has a Core 2 Duo server with 4 GB RAM and two 500 GB SATA II hard drives at its main office. All computers in each branch have similar hardware and software installed. The company's branches typically have between five and ten computers that are networked and connect to the main server via the Internet using ADSL2+.

One of the branches had problems communicating with the main office server. The branch manager called in an IT consultant to solve the problem.

a. Tick the box that **best** describes this type of problem.

☐ hardware related ☐ software related ☐ network related

1 mark

b. Give **two** possible reasons for this problem.

1. _____

2. _____

2 marks

c. What sort of support should the IT consultant provide to the branch after fixing the problem?

_____

1 mark

Question 11

Below is a list of some types of computer documentation. Tick the appropriate boxes to indicate **four** items of **user** documentation.

☐ Change logs

☐ Detailed debug procedures

☐ Installation guide

☐ Macro and template pseudocode

☐ Posters

☐ Programmer's reference manual

☐ Quick reference card

☐ Wall chart

3 marks

Question 12

The table below lists some generally accepted guidelines for good web design. Give a reason for using each of the guidelines, in the context of creating a website for a travel agent.

| Design guideline	Reason
Make headings a different font and larger size than the body text.	
Use clear, well-labelled images and maps where appropriate.	
Use 'alt' tags on all images.	

3 marks

Question 13

Steven has installed the utility program called the 'AC/DC PC Configurator'. It has a number of components, including a Disc Defragmenter, a Disc Repairer and a Secure File Eraser that deletes and overwrites files.

a. Briefly explain the function of the Disc Defragmenter component.

_____

_____

_____

1 mark

When Steven runs the Disc Defragmenter it analyses his hard disk and provides the following report.
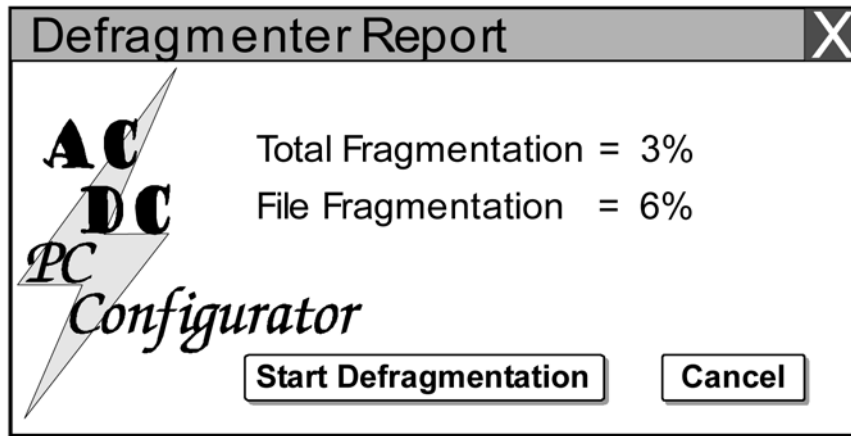
b. Does Steven need to defragment the disk? Explain your answer.

_____

_____

_____

1 mark

c. Briefly explain the function of the Disc Repairer component.

_____

_____

_____

1 mark

d. Suggest a situation when the Secure File Eraser would be used.

_____

_____

_____

1 mark

SECTION B – continued

Question 14

Yash likes to play Doom 3, but he notices that the frame rate in the game falls to only 16 frames per second in some of the heavy action sequences of the game. This makes it very hard to survive when enemies suddenly appear.

a. Why are the latest computer games, such as Doom 3, often used to benchmark 3D graphics cards?

_____

_____

1 mark

b. Suggest one possible cause for the slow frame rates Yash experiences and explain how it could be rectified.

_____

_____

_____

_____

2 marks

Question 15

There are many forms of user documentation that can be designed to help people work with computers. Each of the situations described in the table below requires a different form of user documentation. Suggest the most suitable type of user documentation for each one and justify your choices.

Situation	Type of user documentation	Justification
A new accounting package has been installed on a small network. The users need to know how to use the package and require exercises that demonstrate the features of the software.		
A company requires documentation for new employees to help them to quickly learn about their responsibilities and how things are done by the company in general.		

4 marks

Question 16

Conventional computer systems have used cathode ray tube (CRT) technology for the display. Liquid crystal display (LCD) screens have become an increasingly popular technology.

Some of the advantages of LCDs over CRTs are listed in the table below. Give an ergonomic reason for each advantage in the context of a typical workplace that uses computers.

Advantage of LCDs	Ergonomic reason for the advantage
Freedom from flicker and image distortions at the screen edges	
Less electromagnetic radiation emissions	
Thinner and lighter displays that require less space and are easier to move	
Uniform screen brightness and substantially less glare	

4 marks

Question 17

In December 2006 the Reserve Bank of Australia issued a warning about a 'phishing' email. The warning stated users should delete 'suspicious or unsolicited emails' and not use the link provided in the email.

a.   What type of information does a phishing email try to obtain from the computer user?

_____

_____

1 mark

b.   The Reserve Bank advised users not to follow the hyperlink included in the email. If the users clicked on this hyperlink, what type of website would they end up at?

_____

_____

1 mark

c.   What is the most likely outcome if a user went to the website provided and followed the instructions found there?

_____

_____

1 mark

Question 18

The table below shows the entries in a Help Desk log relating to a user's **continuing problem**.

Complete the table with the most appropriate suggested action in each row.

Date	Time	User	Incident	Suggested action
1/10/2008	10:09	Novak	Novak returned from a meeting to find his computer's screen blank (due to power-saver) but nothing happened when he moved the mouse or pressed a key. The screen's power indicator was on.	
1/10/2008	10:13	Novak	The last action had no effect. Determined there is an identical computer nearby.	
1/10/2008	10:41	Novak	Novak's computer is still not displaying anything.	
1/10/2008	12:55	Novak	Novak's computer now displays correctly. However, the application that was open before the incident displays an error message 'invalid data file structure'.	
1/10/2008	13:33	Novak	Everything is OK.	Incident closed.

4 marks

Question 19

Repetitive Strain Injury (RSI) and Carpal Tunnel Syndrome are both injuries commonly suffered by computer users to a particular part of their bodies.

a. Explain how these injuries could occur when a person uses a computer in a workplace setting.

_____

_____

1 mark

b. Describe **two** preventative measures that a person could take to avoid these types of injury.

_____

_____

2 marks

Preventative measures, such as the ones given in **part b.**, would be documented as part of a set of Occupational Health and Safety (OH&S) standards for a workplace.

c. Identify the title of the person responsible for documenting and informing people about OH&S standards that apply to the workplace.

_____

1 mark

Question 20

Operating systems (and other software) are distributed and licensed in a number of ways.

Complete the following table, indicating the **most common** conditions for each distribution method.

Type	Licence fee	Number of copies or users	Redistribution and modification rights
Commercial	Paid on purchase or subscription	Defined by licence	None
Open Source			
Shareware			
Freeware			

3 marks

Question 21

Justin is having problems downloading his photos from his mobile phone to his computer. The connection is Bluetooth; but every time he connects, the computer crashes with the following error message.

*** Stop: 0x0000008E (0xC0000005, 0x8E8A32AD, 0xA0DC3B78, 0x00000000)

*** bluetooth.drv – address 8E8A32AD base at 8E89F000, datestamp 454A76EA

*** Kernel Panic – Segmentation Fault – Press any key to restart your computer

---

a. What is the **most** likely cause of the problem?

_____

_____

1 mark

b. Suggest **one** way to fix the problem.

_____

_____

1 mark

c. Give another way to retrieve Justin's photos.

_____

_____

1 mark

Question 22

An intermittent fatal crash to a blue screen has been occurring on the principal's computer. The cause is currently unknown. She has provided you with information about the programs that were running when each crash occurred. Your summary of the information is shown in the table below.

Report #	Last thing done before the crash	Other running programs
1.	Recording sick leave for Mr Jones using the payroll system	Word processor Sports Results program Internet browser
2.	Entering event results in the Sports Results program	Solitaire game Payroll system
3.	Checking House point totals in the Sports Results program	Payroll system Internet browser Solitaire game
4.	Record maternity leave for Mrs Anu using the payroll system	Sports Results program Spreadsheet Free Cell game

Other known facts about the intermittent fatal crash are

- only the principal uses the payroll system
- many other staff use all the other programs regularly
- only the principal's computer seems to have these crashes
- the principal says she often uses the payroll system with no problems at all and it just crashes sometimes
- the Sports Results program usually works correctly for the principal.

a. From the information given above, what is common to each crash? Explain your answer.

_____

_____

_____

_____

2 marks

b. Suggest **one** way to prevent the fatal crashes occurring in the future.

_____

_____

_____

1 mark

END OF QUESTION AND ANSWER BOOK