**Victorian Certificate of Education
2005**

**STUDENT NUMBER**

Letter

Figures

Words

# VCE VET INFORMATION TECHNOLOGY (General)

## Written examination

**Friday 28 October 2005**

**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**

| Section | Number of questions | Number of questions to be answered | Number of marks |
|---------|---------------------|------------------------------------|-----------------|
| A | 20 | 20 | 20 |
| B | 20 | 20 | 50 |
| C | 7 | 7 | 20 |
| | | | 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 17 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

### Question 1

Which of the following is **not** an image file format?

**A.** tif

**B.** gif

**C.** mp3

**D.** jpeg

### Question 2

For a user to save time, a quick and easy way to start or run a computer application would be to

**A.** create a shortcut on the desktop.

**B.** create a batch file that runs the application.

**C.** add an entry to the system configuration file.

**D.** copy the executable file into the user's home directory.

### Question 3

Which tool is the **most** appropriate for producing **online** documentation?

A tool that generates

**A.** Help files.

**B.** online tutorials.

**C.** web-based authoring.

**D.** word-processing documents.

### Question 4

'All documentation should use Times New Roman font with 11 point size' is an extract taken from which type of standard?

**A.** a project standard

**B.** a template standard

**C.** an industry standard

**D.** an organisational standard

**Question 5**

While on duty at 8.00 am as the Help Desk operator, you receive the following three calls for support in quick succession.

**Call 1** – The advertising manager is unable to log onto the shared network drive to immediately check page proofs for the advertising brochures to be sent to the print room.

**Call 2** – A graphic display artist cannot access email. He needs to send page proofs for the advertising brochure to the print room for a print run in two hours.

**Call 3** – The despatch clerk needs to print out delivery dockets for orders to be delivered this morning. The printer seems to be out of toner.

The correct order of the three calls, from highest to lowest priority, is

A. call 3, call 2, call 1.
B. call 2, call 3, call 1.
C. call 1, call 3, call 2.
D. call 1, call 2, call 3.

**Question 6**

Jack runs a money-lending advisory business. He is mainly concerned with the changes of lending conditions and interest rates of the major financial institutions. He needs to use a program that would allow him to compare the impact of interest rates on clients' loans, late figures and to predict future returns on investment.

What package would he be best advised to use?

A. database
B. spreadsheet
C. web authoring
D. word processing

**Question 7**

A computer technician needs to repair a faulty power supply out of a main frame computer.

What type of documentation does he require to complete the task?

A. user reference guide
B. quick reference guide
C. technical documentation
D. configuration and installation documentation

**Question 8**

Irene, the business manager, wants the new blank Corporate Letterhead document accessible to all staff for use in correspondence.

How can the original be protected from accidental alteration?

A. store the original on floppy disk
B. convert the document to a template
C. give a copy of the original to each user
D. store the original on the Hard Disk Drive (HDD) of Irene's PC

**Question 9**

What type of information does user documentation describe?

**A.** the operation of a system

**B.** the maintenance of a system

**C.** the organisational rules and guidelines

**D.** the construction of the hardware and software that runs a system

**Question 10**

Habib has received a picture file sent by email that he is unable to open.

Which one of the following could **not** be a reason for this problem?

**A.** The picture file has become corrupted.

**B.** The picture file has a macro virus attached.

**C.** The picture file has been saved without the correct file extension.

**D.** The picture file is missing the required graphic program needed to open it.

**Question 11**

A sales representative has accidentally sent **two** identical emails advertising new products in a text message to the **same address**: one email has been accepted and the other email has been refused by the mail server.

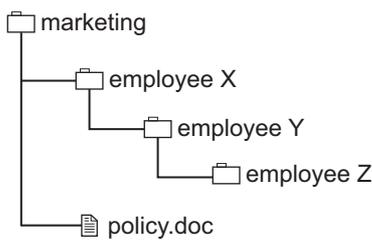From this description, what is the **most likely** problem?

**A.** The destination email account is full.

**B.** The destination email address is incorrect.

**C.** The text of the email breaches company guidelines.

**D.** The Graphical User Interface (GUI) is running a self-test for dialogue box generation.
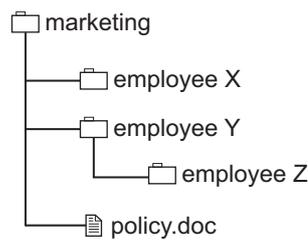
**Question 12**

The marketing manager has requested that a directory for marketing be created with subdirectories for employees X, Y and Z. The marketing policy statement should be stored in the **root** of the marketing directory.

Which one of the following directories shows the correct file structure?
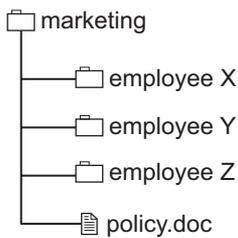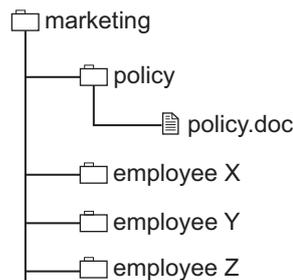
**A.**
```
marketing
   └── employee X
          └── employee Y
                 └── employee Z
   └── policy.doc
```

**B.**
```
marketing
   └── employee X
   └── employee Y
          └── employee Z
   └── policy.doc
```

**C.**
```
marketing
   └── employee X
   └── employee Y
   └── employee Z
   └── policy.doc
```

**D.**
```
marketing
   └── policy
          └── policy.doc
   └── employee X
   └── employee Y
   └── employee Z
```

**Question 13**

Lucy is editing a document that is stored on another computer on the network. The other computer stops working because someone tripped over its power cord but Lucy's computer is fine. Lucy rings you up to find out how she can save her work.

What should you advise her to do?

**A.** reboot her computer then save the work as normal

**B.** wait for the other computer to restart and both computers to reconnect and then save her work as normal

**C.** wait for the other computer to restart and both computers to reconnect then recover the file from the backup tape

**D.** reboot her computer then wait for the other computer to restart and both computers to reconnect then save the work as normal

**Question 14**

A new computer has been connected to a LAN (Local Area Network) for the first time. When the user tries to connect to shared file storage on the network, the computer cannot find it. In fact this computer cannot 'see' any of the other computers on the LAN at all.

What could be the source of this problem?

**A.** spam filtering

**B.** firewall settings

**C.** spyware blocking

**D.** antivirus configuration

**Question 15**

Why is it necessary for Mark to check the hardware compatibility list (HCL) on the Internet before installing an upgraded operating system (OS) on his company's computer?

**A.** to confirm that the existing hardware in the computer is compatible with the new OS

**B.** to confirm that the licensed database software is compatible with the new OS

**C.** to confirm that the licensed antivirus software is compatible with the new OS

**D.** to confirm that the warranty on the computer would not be voided by the change of OS

**Question 16**

Reliability is a selection criterion for new technology.

What is reliability measured against?

**A.** the operational performance

**B.** the stability of performance

**C.** the gains a business may expect

**D.** the future trends of the business

**Question 17**

Which procedure is used as a **physical barrier** to secure data against unauthorised access in an organisation?

**A.** restrict user access to computers

**B.** enforce password logon

**C.** keep the firewall up to date

**D.** keep the antivirus software up to date

**Question 18**

A travelling sales team needs to be up to date with the availability of stock while dealing with clients.

The most suitable device to store and retrieve this data would be

A. a personal digital assistant (PDA) device.

B. a memory stick.

C. a portable zip drive.

D. a portable CD–RW writer.

**Question 19**

As the system administrator, you have determined that fifteen desktops in the purchasing department are capable of being upgraded to the latest operating system. Budgeting approval has also been given and the licences and installation media have been purchased.

What is the next task to be completed?

A. go to each user's machine, delete the old operating system and run scandisk

B. notify each of the users and ask them to bring their computer to the service desk

C. notify the users of the proposed timelines and organise training for the affected users

D. send the operating system CD to each of the users with instructions on how to install it

**Question 20**

Your manager has asked you to **upgrade** the operating systems on **all** of the organisation's desktop PCs. You are not sure when the operating systems were last upgraded.

What is the **first** task that you should carry out before upgrading the operating systems?

A. ask users to provide feedback on any email messages they may have received

B. research and locate all the software licensing documentation for the organisation

C. destroy all copies of previous versions of the operating system and documentation

D. contact the suppliers and ask if they will give a refund for all the previous versions

**END OF SECTION A**

## SECTION B – Short-answer questions

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┌─────────────────────────────────────────────────────────────────────────┐
│                      Instructions for Section B                          │
│   Answer all questions in the spaces provided.                           │
└─────────────────────────────────────────────────────────────────────────┘
```

**Question 1**

Teresa works most of the day in front of a computer and would like to get a new LCD screen monitor. List **two** valid occupational health and safety (OH&S) reasons that Teresa could use to convince her manager that she requires a new LCD screen monitor.

1. _____

2. _____

2 marks

**Question 2**

Give **two** reasons why a modern computer should always be 'shut down' correctly.

1. _____

2. _____

2 marks

**Question 3**

List **two** advantages and **two** disadvantages of using **Internet sites as a reference source**.

Advantages

1. _____

2. _____

Disadvantages

1. _____

2. _____

2 + 2 = 4 marks

**Question 4**

What information is provided by the 'readme' file on installation disks of new software applications?

_____

_____

1 mark

**Question 5**

List **two** reasons for documenting application software.

1. _____

2. _____

2 marks

**Question 6**

When writing user documentation, what are **three** features of good practice that you should consider?

1. _____

2. _____

3. _____

3 marks

**Question 7**

Select **three** of the following acronyms.

XML, HTML, FTP, IRC, SMTP, POP3

State what each of the selected acronyms stands for **and** explain briefly what each does.

1. _____

_____

_____

2. _____

_____

_____

3. _____

_____

_____

2 + 2 + 2 = 6 marks

**Question 8**

A client is experiencing unusual problems installing and configuring a new hardware product.

What **two** hardware-related checks should you make?

1. _____

2. _____

2 marks

**Question 9**

What **two** measures would you use to demonstrate improvements to a Help Desk service?

1. _____

2. _____

2 marks

**Question 10**

Colin phones the computer technician and complains that all his 'auto text' in his word processor was lost when his new computer was upgraded. He had created many auto text shortcuts, like *pz* for please, that made his work faster, and now he wants them back. The computer technician has not yet reformatted his old computer.

What should the computer technician do to fix Colin's problem?

_____

_____

_____

_____

1 mark

**Question 11**

James from payroll has called you at the Help Desk. He has just had a new database software package installed and when he runs the application he receives the error message 'insufficient memory'.

What advice would you give James so he can successfully run the application?

_____

_____

1 mark

**Question 12**

Baby Blue Beds has installed an invoicing software package on their computers. User manuals have been sent to all the users after installation. The Help Desk has received a number of calls from users asking for help because the user manual is very technical and they are having difficulty running the software.

List **two** tasks Baby Blue Beds should now do to assist their users.

1. _____

_____

2. _____

_____

2 marks

**Question 13**

Rosie is the new database administrator in your organisation. Rosie is a highly skilled database administrator who learns quickly, but she has had only limited experience with your organisation's database. When Rosie accepted the position it was agreed that she would be given support to help her administer the database. As part of Rosie's induction into the organisation, she must undergo a skills assessment.

Explain why Rosie needs to undergo the skills assessment.

_____

_____

_____

_____

_____

2 marks

**Question 14**

**a.** What are **two** differences between a command line interface and a graphical user interface?

_____

_____

_____

**b.** What is the function of a virtual machine operating system?

_____

_____

_____

2 + 1 = 3 marks

**Question 15**

A business has recently implemented a new software package that has significantly changed the current work practices.

**a.** List **two** problems that a business could experience with staff as a result of implementing a new software package.

1. _____

2. _____

**b.** List **two** ways that the business could overcome these problems.

1. _____

2. _____

2 + 2 = 4 marks

**Question 16**

The requirements for two new software packages to be installed are

| Software package | RAM | Available hard disk space |
|---|---|---|
| 1. | 256 MB | 300 MB |
| 2. | 256 MB | 500 MB |

Current computer specifications are 384 MB RAM and 400 MB available hard disk space.

Can both packages be successfully installed on the current system? Explain your answer.

_____

_____

_____

2 marks

**Question 17**

A new feature in most modern CPUs is often abbreviated to No Execute (NX). This feature can prevent some virus-like activity occurring in computers.

Some viruses that were stopped by NX were 'Blaster' and 'Sasser'. How does the NX feature stop these viruses?

_____

_____

1 mark

**Question 18**

**a.**    What is encryption when related to computer technology?

_____

_____

**b.**    When is it appropriate for a user to use encryption?

_____

_____

**c.**    Outline **one** problem that could result from the use of encryption on a computer.

_____

_____

1 + 1 + 1 = 3 marks

**Question 19**

Your client, WaxHead Surf Wear, currently uses a **dialup Internet account**. The company wants a **broadband connection** to the Internet but they found that the number of providers, plans and options are too confusing. Their business partners have advised that they should choose from Ardvark IT or Emu Internet and they have provided the following information.

| Provider | Ardvark IT plan A | Ardvark IT plan B | Emu Internet plan A | Emu Internet plan B |
|---|---|---|---|---|
| Speeds | 256/64 | 512/128 | 256/64 | 256/64 |
| New connection setup cost | $88.00 | $88.00 | $149.00 | $109.00 |
| Rapid transfer setup cost | $35.00 | $35.00 | $59.00 | $39.00 |
| Monthly fee | $40.00 | $42.00 | $29.95 | $29.95 |
| Included GB | no limit | 8 GB | 5 GB | 5 GB |
| Charge per excess GB | no limit | $3.00/GB | shaped to 60 kbps | shaped to 60 kbps |
| Spam filtering | free | free | $1.00/month | $1.00/month |

a. Which plan offers the fastest connection?

_____

_____

b. What does 'shaped to 60 kbps' mean?

_____

_____

c. What is spam filtering?

_____

_____

d. Why can WaxHead Surf Wear **not** use the cheaper Rapid transfer setup option?

_____

_____

1 + 1 + 1 + 1 = 4 marks

**Question 20**

Fred is a 3D-graphic designer and tells you his computer is too slow and the image quality on the screen is poor. You check out his computer and agree that it is too slow and the image quality needs improvement.

His current setup is

- 800 MHz CPU
- 512 MB RAM
- 8 GB HDD
- 4 × AGP video card

With the current computer budget, Fred can only afford to upgrade **either** the video card to an 8 × AGP **or** the RAM to 1.5 GB, but not both.

**a.** What advantage would there be in upgrading the RAM?

_____

_____

**b.** What advantage would there be in upgrading the video card?

_____

_____

**c.** Which upgrade would you advise Fred to purchase and why?

_____

_____

1 + 1 + 1 = 3 marks

Total 50 marks

**END OF SECTION B**
**TURN OVER**

## SECTION C – Case study

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### Instructions for Section C

Read the case study below and answer the following questions in the spaces provided.

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Capricorn Technology Solutions is a company that provides IT solutions to its many clients. The solutions range from Help Desk support through to full network design and implementation. They have offices in Melbourne, Sydney, Brisbane, Adelaide, Perth and Hobart.

Each of their offices has a local area network (LAN) and these are all linked via a wide area network (WAN).

You and your colleague, Frank, are employed in the Melbourne office. You are the LAN technical support specialist and Frank is the application support specialist.

A client, B Rich Pty Ltd, has asked Capricorn Technology to provide the services of a network administrator and a software support specialist for a period of twelve months. Their current network administrator and software support specialist will be leaving in two weeks.

You and Frank have been selected to fill these roles for the client.

Your new roles are to start as soon as possible to allow you time to learn the IT operations at B Rich before their staff members leave.

You are to report to your new manager, Sandra, at B Rich the following Monday.

### Question 1

You are about to create a login account for yourself with full administrator privileges to all areas of the network.
Why would you give yourself full administrator privileges to all areas of the network?

_____

_____

1 mark

### Question 2

As the new network administrator, one of the first things you want to access is all the network documentation.
Give **two** reasons why you would need to access the network documentation.

_____

_____

2 marks

**Question 3**

To make sure you conform with the security requirements, you read the B Rich security policy. On reading the policy, you notice that the only information it provides for logins and passwords is that all logins will be allocated administrator privileges and that passwords are to be the same as the login name.

You decide you need to have the security policy revised and updated. You send an email to Sandra with some recommendations and reasons for the recommendations.

Give **two** recommendations and provide a reason for each of the recommendations you proposed to Sandra.

1. _____

   _____

   _____

2. _____

   _____

   _____

                                                                                        2 marks

**Question 4**

You check the system log files and notice the log file for recording all attempts of users to log in to the network is not enabled. If this log file was enabled, how could it be used to assist in maintaining network security?

_____

_____

_____

_____

_____

_____

_____

                                                                                        2 marks

**Question 5**

You find B Rich does not have a disaster recovery plan in place. To assist you in preparing a disaster recovery plan, you carry out a full audit of the IT infrastructure, including network devices (such as routers and switches), file servers, operating systems, network traffic, databases, applications, all other software, backup routines, external IT suppliers, roles and responsibilities of all staff. The audit will provide you with a baseline for future reference.

**a.** As part of the disaster recovery plan, there will be regular scheduled backups of all file servers. The backups will be scheduled in such a way that only the current backups will be stored onsite in a fireproof safe. All other backups will be taken and stored securely offsite by contractors.

Why would you keep only the current backups onsite and stored in a fireproof safe?

<br><br><br><br><br><br>

**b.** Explain why all the other backups are stored securely offsite.

<br><br><br><br><br><br>

**c.** You recommend that at least once a year the disaster recovery plan should be tested and evaluated. Why do you make this recommendation?

<br><br><br><br><br><br>

<div align="right">1 + 1 + 2 = 4 marks</div>

**Question 6**

Frank has gone to see Wanda, who needs some help with word-processing and spreadsheet packages.

Frank finds that Wanda is responsible for B Rich's monthly magazine. Each month Wanda opens the previous month's magazine, deletes all the information, and uses the blank magazine as the format for the new magazine. Wanda also needs to import tables from a spreadsheet into her magazine.

**a.**  Frank suggests to Wanda that she create a template for her magazine. Explain why Frank would make this suggestion to Wanda.

_____

_____

**b.**  Frank shows Wanda how to create a macro to allow her to import the tables into the magazine. Should Frank save the macro as a local or global macro? Explain your answer.

_____

_____

_____

**c.**  Wanda does not want to waste time looking for the macro, selecting the macro, and then running the macro. What can Frank do for Wanda that will save time when the macro needs to be run?

_____

_____

1 + 2 + 1 = 4 marks

**Question 7**

To help you monitor software usage and to ensure B Rich conforms to licensing agreements, you install and run some network monitoring software tools that will allow you to monitor all network traffic. You configure the monitoring to notify you via an email anytime the thresholds you have set are exceeded.

**a.**  You are receiving a number of emails notifying you that an application is being run more than the maximum number of times allowed by B Rich's licensing agreement. List **three** ways you could make sure B Rich's licensing agreement remains valid.

1. _____

2. _____

3. _____

**b.**  The monitoring also shows at least twenty-five users are listening to streaming radio (radio over the Internet) while working on their PCs. Describe what effect this will have on the network and the other users of the network.

_____

_____

_____

3 + 2 = 5 marks

Total 20 marks

**END OF QUESTION AND ANSWER BOOK**