VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY

# Victorian Certificate of Education 2003

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

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# VCE VET INFORMATION TECHNOLOGY (General)

# Written examination

Friday 31 October 2003

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
В	17	17	46
C	7	7	20
			Total 86

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

#### Materials supplied

- Question and answer book of 18 pages.
- 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 electronic communication 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.

#### **Ouestion 1**

Application software needed to access Internet sites is known as a

- **A.** database compiler.
- **B.** word processor.
- C. search engine.
- **D.** web browser.

#### **Question 2**

A company has purchased a new laser printer to be installed on a stand-alone desktop computer.

The system software that must be installed on the computer for the printer to function is the

- **A.** operating system software.
- **B.** application software.
- **C.** driver software.
- **D.** fonts software.

#### **Ouestion 3**

You are a Help Desk operator and have logged a number of jobs.

- **Job 1** The despatch clerk is unable to schedule urgent customer deliveries due to a fault with his computer.
- **Job 2** The accountant is unable to print end-of-year results that are due in three weeks time.
- **Job 3** The receptionist cannot access email. She wants to change the phone message system from delivering hard copy messages to sending electronic messages.
- Job 4 The payroll clerk cannot access a macro to run the wages calculations that are due in five days time.

The four jobs would be best prioritised in the order

- **A.** job 1, job 3, job 4, job 2
- **B.** job 3, job 1, job 4, job 2
- C. job 4, job 1, job 2, job 3
- **D.** job 1, job 4, job 2, job 3

#### **Question 4**

Harley, the Help Desk operator, has received a call from the clerk in the Accounts Department. The clerk cannot access the shared accounts database files.

Which is the most appropriate response that Harley could give?

- **A.** Switch your computer off and then on again.
- **B.** Can you identify yourself and clarify the problem?
- C. Can you ring me back in half an hour if there is still a problem?
- **D.** I will send a network technician to check the cabling on your PC.

Which one of the following people would be **least likely** to use technical documentation?

- A. a programmer
- **B.** a system designer
- **C.** a database entry operator
- **D.** a computer systems engineer

#### **Ouestion 6**

You have created a macro for a shared spreadsheet file to be used by the Accounts staff at your place of work. How could you provide efficient and timely user access to the macro?

- **A.** provide on-line help
- **B.** create a shortcut on the desktop
- C. add a button to the standard tool bar
- **D.** run two applications at the same time

#### **Question 7**

An organisation requires a computer system that will accommodate ten or more clients running programs from a Client Server at the same time.

The type of operating system that satisfies this requirement is a

- A. multi-user.
- **B.** multitasking.
- C. multithreading.
- **D.** multiprocessing.

#### **Question 8**

Outlined are four logged Help Desk calls with their problems and solutions.

Help Desk call	Problem	Solution
Α.	Desktop computer slow and unreliable	Defrag hard disk drive
В.	Network user cannot logon	Regenerate password
C.	Programs terminate without warning	Replace memory module
D.	User cannot access a shared database	Desktop shortcut redirected

Which problem is hardware related?

- A. Help Desk call A
- B. Help Desk call B
- C. Help Desk call C
- D. Help Desk call D

#### **Question 9**

A large organisation uses email to send weekly updates to specific groups within various departments. Current practice involves sending the email to each member of the group individually.

What feature of an email software package could be employed to make this process more efficient?

- **A.** the global address book
- **B.** the distribution list
- C. the address book
- **D.** the contacts list

In a SWOT analysis, a threat is best defined as

- **A.** user resistance within the business.
- **B.** external factors affecting the business.
- **C.** forces that can adversely affect the business.
- **D.** business practices that an organisation can improve on.

#### **Question 11**

An organisation has developed and implemented Key Performance Indicators (KPIs) to ensure the efficient and effective operation of the organisation's Help Desk.

This process is usually formalised in a

- A. Business Plan document.
- **B.** Service Level Agreement.
- **C.** job description document.
- **D.** Employee Bargaining Agreement.

#### **Question 12**

You have been asked to design an implementation plan for the installation of new equipment into an organisation.

Which one of the following would **not** be included in an implementation plan?

- **A.** an audit of equipment records
- **B.** an estimate of time taken to carry out each task
- **C.** the timing of the introduction of the new technologies
- **D.** the resource requirements and individual responsibilities for tasks

#### **Question 13**

At what stage should a software system be evaluated, by both users and technical specialists, to determine how well it has met its original objectives?

- **A.** during systems design
- **B.** during implementation
- C. during day-to-day operations
- **D.** during conversion from an old system to the new system

#### **Question 14**

To assist with the upgrade of a network's operating environment, it is important to know the current configuration of the network being upgraded.

Which type of documentation would be used to support this process?

- A. user
- B. system
- C. policy
- **D.** standards

A new default document in a word processing application is an example of

- **A.** a macro.
- **B.** a version.
- C. a template.
- **D.** an application.

#### **Question 16**

When importing a spreadsheet file to a database file, the columns in the spreadsheet are used by the database to identify the

- A. fields.
- **B.** data type.
- C. primary key.
- **D.** number of records.

#### **Question 17**

The **initial** objective in forming documentation for an IT solution is to identify

- **A.** budgetary issues.
- **B.** intended users' characteristics, needs and diversity.
- **C.** quality and consistency within a business environment.
- **D.** the technical problem being addressed to meet organisational standards.

#### **Ouestion 18**

A system flow chart provides

- **A.** details of processing within a system.
- **B.** an overview of a program within a system.
- **C.** a description of data requirements within a system.
- **D.** details of decision-making and logic loops within a system.

#### **Question 19**

The read/write performance of an operating system is best optimised by

- **A.** checking the hard disk for errors.
- **B.** monitoring system resources with a performance meter.
- **C.** automatically opening all regularly used applications on start-up.
- **D.** regularly running a program to defragment files and remove gaps on the hard disk drive space.

#### **Question 20**

You receive a call from Mary, the Human Resources Manager, complaining that she is unable to save a file that she is currently updating on a shared directory. When Mary attempts to save the file the following error message is displayed: 'This file is locked for editing by another user'.

This type of issue is categorised as

- **A.** a bug in the program.
- **B.** access rights.
- C. connectivity.
- **D.** security.

# **SECTION B – Short-answer questions**

# **Instructions for Section B**

Answer all questions in the spaces provided.

Question 1	
List <b>two</b> resources an organisation can use to keep informed about specialised features of	technology.
1	
2	
Z	2 marks
Question 2	
Why do organisations have standards for producing documentation?	
	1 mark
Question 3	
How does the purpose of user documentation differ from technical documentation?	
	2 marks

Organisations often develop a policy to encourage a continuous improvement culture. As a result of the policy implementation, a Help Desk operates according to the 'Plan, Do, Measure, Improve' model. As part of this change in culture, feedback is seen as a positive experience. All relevant data is collected for analysis.

List **two** appropriate methods used to collect client feedback to monitor Help Desk performance.

	1 1
1	
2	
How would this information be used?	
	2 + 2 = 4  m

**CONTINUED OVER PAGE** 

Corporate Travel categorises their Help Desk support as belonging in two main areas.

Area 1 – Problems

Area 2 – Services

Each call is logged into a Help Desk database and is prioritised according to the following criteria.

- Level 1 Urgent more than five persons affected, response time within fifteen minutes
- Level 2 Standard general software and hardware type problems, response time within one working day
- Level 3 Minor something that can be scheduled to occur at a later date

	two types of services that a Help Desk could provide for Corporate Travel.
2	
	porate Travel's Help Desk must resolve 90% of calls logged within the specified times. How does to fithe Help Desk database enable the organisation to monitor this?

2 + 2 + 1 = 5 marks

Flora and Fauna (F & F) is an organisation funded by the Federal Government. It monitors the environment in each state and advises the Minister for the Environment on related issues.

A recent financial report indicated that F & F spent \$2.2 million in the last financial year to support their information and communication systems.

Help Desk support is provided for hardware platforms, operating systems and software applications. Products and versions of software vary within each state office and also between states.

To reduce financial costs on F & F, the Chief Executive Officer has requested that the organisation investigate a standard computer operating environment and all necessary processes to maintain this infrastructure.

•	What is mea	nnt by a standa	rd computer o	operating en	vironment?			
•	List <b>two</b> ber	_	anisation as a	result of mo	oving to a sta	ndard compu	ter operat	ing environmen
	2							
								2 + 2 = 4  mar
	stion 7 two differen	t functions of a	n operating s	ystem.				

2 marks

Qu	estion 8
a.	What is the purpose of Virtual Memory in a computer system?
b.	What overall gain does an organisation achieve through the use of Virtual Memory?
	1 + 2 = 3  marks
	estion 9 effly describe the function of a boot-up disk, sometimes referred to as a start-up disk.
	2 marks
Dur	estion 10  ing the installation of an operating system, the Network Administrator is given the option of creating aber of partitions on a hard disk drive.
a.	What happens when a hard disk drive is partitioned?
b.	How could this benefit an organisation?
	1.1.2.1

1 + 1 = 2 marks

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ope	ar client is upgrading their operating system and has three critical peripheral devices that they need for the ration of their business. Two of the peripheral devices are manufactured overseas. How could you quickly ate information and check that the three peripheral devices are compatible with the new operating system?
	1 mark
Qu	estion 12
twe was	Incorporated deployed twenty-five copies of a software application over a Client Server network to nty-five clients. The Managing Director of the company asked the Network Administrator if the software slegal. The Network Administrator stated that the software was legal as the company paid for a concurrent use for fifteen users.
Has	the company met its legal copyright obligation? Justify your answer.
	2 marks
A s	ervice that the Help Desk at Data Communications provides for its clientele is to minimise and remove urity breaches and virus attacks on the company's computer network.  Clients also have a responsibility to use the network in line with the organisation's guidelines. Briefly
	outline <b>two</b> policies that may be developed for network users to support the integrity of the system.  1
	2
b.	The company has asked you to review its virus eradication policy. A virus has been detected. List <b>three</b> steps that you would recommend to minimise any adverse effects on a company's computer network.
	1
	2
	3
	2 + 3 = 5  marks

As manager of Chateau, a real estate office, you have implemented changes to the current computer system and are responsible for organising a training program for the office staff. A day has been set aside for the company to provide staff training. The office staff consist of three clerical and four sales people. They need to be properly trained to use the system efficiently and effectively.

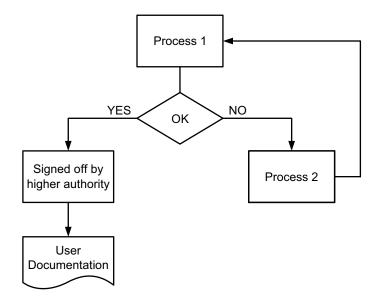
Changes to the system have meant all office staff will have to

- learn the new login and back-up procedures
- save their data to the file server, instead of saving to their individual PC hard disk
- become familiar with the upgraded operating system
- become familiar with the upgraded application software.

What type of training program would be suitable for the office staff at Chateau? Justify your answer.  Apart from training, how could Chateau ensure that the implementation of the changes causes mining.	How could	Chateau overcome user resistance to the computer system	m changes?
Apart from training how could Chateau ensure that the implementation of the changes causes mining	What type o	of training program would be suitable for the office staff	at Chateau? Justify your answer.
Apart from training how could Chateau ensure that the implementation of the changes causes minin			
Apart from training how could Chateau ensure that the implementation of the changes causes minin			
	Apart from	training how could Chateau ensure that the implements	ation of the changes causes minin

1 + 2 + 2 = 5 marks

#### Flow chart of user documentation sign-off



Identify and name Process 1 and Process 2 in the flow chart for 'User documentation sign-off'.

Process 1	-
Process 2	2 marks
Question 16 A client has requested that you develop a macro. The error. What is a syntax error?	macro you have developed will not run due to a syntax

1 mark

Having gained explicit permission from the owner, you can copy data from the World Wie	le Web to current
database and spreadsheet applications. The data being copied must be in a tabular form.	

Vhat languag	e must the ap	oplication pac	ckages be ab	ole to interpre	et?	

2 + 1 = 3 marks

Total 46 marks

#### SECTION C – Case study

#### **Instructions for Section C**

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

Food 4 Thought is an e-commerce business that offers twenty-four hour access on-line supermarket shopping to people who live in the metropolitan suburbs of their local city. The company has only been offering this service for four years. The number of hits received by the company's web site has increased dramatically due to the quality service offered. This has resulted in more clients utilising their service. The company operates a twenty PC network.

To shop at Food 4 Thought, a client must have an on-line account. To obtain this account, the client must register with personal details such as

- name
- email address
- address for delivery of groceries
- particular time and day to receive delivery of groceries
- · credit card details for payment

Once a client is registered, they are given a username and password that allows them full access to the web site.

A client has two different ways in which they can shop for groceries. They can either use their permanent shopping list or modify their shopping list by browsing through the different food departments and adding an item to their trolley cart. Their permanent shopping list was initially set up when they first logged on.

**Mark** works in the **Information Technology Department**. He is in charge of monitoring the network by making sure that all information received is secure and processed correctly. He also offers IT support.

**Shirley** works in the **Inventory Department**. Using a database package, she is in charge of keeping the stock levels up to date for each grocery item and also processing incoming client orders. **Michael**, who also works in this department, is involved in updating the web site weekly to make sure that the information provided to clients is both accurate and up to date. He dispatches all orders.

**Thanh** works in the **Marketing Department**. His role is to design the web page for Food 4 Thought. He needs to make sure that the web site is user-friendly. He also offers web-based on-line help for customers. Through on-line feedback, Thanh follows up on compliments, complaints, suggestions and other customer feedback that can assist with the development of the site.

In the **Graphics Department**, **Vera** uses a publishing package to produce an electronic brochure. The brochure advertises weekly specials. All clients are on an email distribution list. The brochure is sent to all clients as an attachment in a weekly email. Clients also receive emails advising of late midweek specials.

In the **Accounts Department**, through the use of a database and word processing package, **Elaine** keeps track of all client accounts, making sure that payment is processed through credit and sending out monthly electronic invoice accounts to each client's email address.

Question 1	
What template could be developed to assist Vera?	
	1 mark

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	<b>two</b> security measures that Mark could use to ensure that the company's database is secure on the work.
1	
2	2 marks
•	
a.	What type of support is currently available to clients using the Food 4 Thought web site?
b.	What other type of client support could be implemented?
	1 + 1 = 2  marks
	estion 4 v can a Disaster Recovery Plan benefit Food 4 Thought?

 $2 \ marks \\$ 

Qu	estion	5
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a.	Describe <b>two</b> different types of macros that could be developed to assist Shirley and Michael in the Inventory Department.
	1
	2
mac	rogramming script is used to transfer information between the web page and the company's database. A tro is used to import data from Food 4 Thought's database to a shopping list template for permanent and diffied orders.
b.	Should the macro be saved as a local or global macro? Justify your response.
	2 + 2 = 4  marks
_	estion 6 of the Food 4 Thought web site provides customer web-based on-line feedback linked to a database. How could the development of a customer feedback template assist Thanh?
b.	Draw a client registration form template that includes required information used on the Food 4 Thought web site.

1 + 3 = 4 marks

Question 7	7
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Complete the ris	k assessment table to outline the pos	ssible damage that can b	e caused by a	macro vi
Risk	Possible damage	Severity	Recovery	Possibi
Macro virus		High	4 days	Low
1				
Mark has detecte	ed a macro virus. List <b>three</b> nossih	ale procedures that could	d be included	as part o
Mark has detecte organisational gu	ed a macro virus. List <b>three</b> possibuidelines.	ole procedures that could	d be included	as part o

1 + 1 + 3 = 5 marks

Total 20 marks