

# ICA05 VCE VET Information Technology

## Written examination – November

This information relates to the examination of the revised VCE VET Information Technology program based on the ICA05 Information and Communications Technology Training Package.

For 2007 only, there will be different examinations set for both the ICA99 and ICA05 versions of the VCE VET IT program. Teachers and students need to be aware that there are differences between the examinations which will be set for each of these programs in 2007.

From 2008, the following advice applies to all students sitting the VCE VET IT examination.

### Examination specifications

#### Overall conditions

The examination will be sat at a time and date to be set annually by the Victorian Curriculum and Assessment Authority.

There will be 15 minutes reading time and 90 minutes writing time.

VCAA examination rules will apply. Details of these rules are published annually in the *VCE and VCAL Administrative Handbook*.

The examination will be marked by a panel appointed by the VCAA.

The examination will contribute 34 per cent to the Study Score.

#### Content

The examination will be based on the common core compulsory units of competence from the Unit 3–4 sequence of the **ICA05** version of the VCE VET Information Technology program as follows.

- ICAD3218A Create user documentation
- ICAI3020A Install and optimise operating system software
- ICAT3025A Run standard diagnostic tests
- ICAU3004A Apply occupational health and safety procedures
- ICAS3031A Provide advice to clients

Units from the specialist core streams (Applications, Network Administration and Support) in the scored Unit 3–4 sequence will **not** be examined.

The examination items will focus on the underpinning knowledge and skills identified in the units of competence listed above.

#### Format

The examination will consist of **two** sections. All questions on the examination will be compulsory.

**Section A** twenty multiple-choice questions worth 20 marks.

**Section B** short answer questions. These may include a variety of item types including short answer questions, short scenarios and questions with multiple parts. Students may also be required to respond in the form of diagrams, completion of flow charts and tables. This section will be worth 70–80 marks.

The total marks allocated to the examination will be 90–100 marks.

Examination questions will be presented in a question and answer book. Answers to Section A will be recorded on a multiple-choice answer sheet. Section B is to be answered in the spaces provided in the question and answer book.

#### Approved materials and equipment

Pens, pencils, highlighters, erasers, sharpeners and rulers.

## **Advice**

Until the next review of VCE VET Information Technology the examination will be prepared according to the Examination specifications above. Each examination will be an interpretation of these specifications and will test a representative sample of the underpinning knowledge and skills in the specified units of competence.

The following sample examination has been prepared in order to illustrate how VCE VET Information Technology might be examined.



# Victorian Certificate of Education

## 2007

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

### STUDENT NUMBER

Figures

Words


Letter

# VCE VET INFORMATION TECHNOLOGY

## Written examination

Day Date 2007

Reading time: \*.\*.\* to \*.\*.\* (15 minutes)

Writing time: \*.\*.\* to \*.\*.\* (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	24	24	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.

#### 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 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**

Go-fast Auto Accessories recently purchased a package of new macros for its spreadsheet-based sales system.

Before installing them, what should you do?

- A. create online FAQ (Frequently Asked Questions) files
- B. give every employee the new manual
- C. provide group training to the sales people
- D. provide one-on-one training to the sales manager

**Question 2**

A student is downloading music files from the Internet. She notices that popup boxes with the words 'Happy Birthday' appear suddenly all over the screen. She reports it to her teacher.

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

- A. It is actually her birthday.
- B. The keyboard is defective.
- C. There is an infection by a virus.
- D. The student's email account is full.

**Question 3**

The best people to test user documentation for software newly introduced to an organisation are the

- A. users of the software.
- B. technicians installing the software.
- C. accountants signing the cheque to pay for the software.
- D. software developers at the company selling the software.

**Question 4**

Kim carries an extra USB keyboard with her portable laptop.

The **most** likely reason for this is

- A. it makes her look good.
- B. she thinks the laptop keyboard is too small.
- C. she likes the bonus of having a numeric keypad.
- D. she is used to the standard QWERTY keyboard layout.

**Question 5**

You are preparing a set of help documentation for an accounting system.

Which one of the following would be **least** useful to the system's users?

- A. online FAQs
- B. an index of hardware fault codes and their meanings
- C. a list of standard error messages, with user actions required
- D. a print of each input screen, with descriptions of what each field contains

**Question 6**

While on duty at 9.00 am as the Help Desk operator for a large department store, you receive the following three calls for support in quick succession.

**Call 1:** The training manager needs to urgently download photos from a digital camera to include in a slide show presentation due next week, but does not know how to download them.

**Call 2:** The advertising department has accidentally deleted the Christmas catalogue, which is due in two months time. They want you to retrieve yesterday's copy from backup.

**Call 3:** The sales assistant needs to print out invoices for customers that are currently being served. The printer seems to be jammed with paper.

These calls should be prioritised (highest to lowest) in the order

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

**Question 7**

A multicore CPU (more than one CPU on one chip) is most useful for

- A. running office software.
- B. playing the latest DVD movies.
- C. playing the latest computer games.
- D. browsing web pages on the Internet.

**Question 8**

The primary purpose of a 'quick reference card' is to

- A. maintain a log of Help Desk calls.
- B. provide full specifications for hardware or software.
- C. list contact details for hardware or software manufacturers.
- D. list key steps for common functions of hardware or software.

**Question 9**

At what stage should both the users and the technical specialists evaluate a software system 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 the old system to the new system

**Question 10**

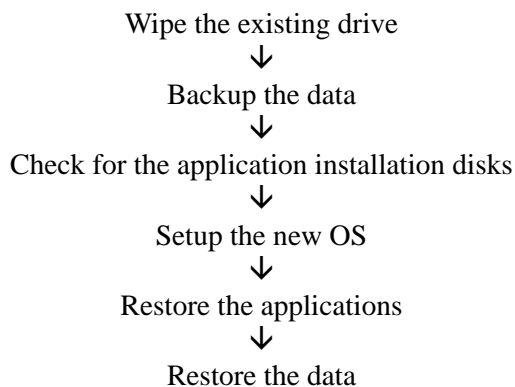
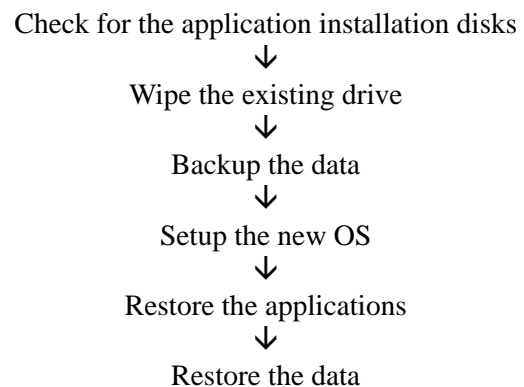
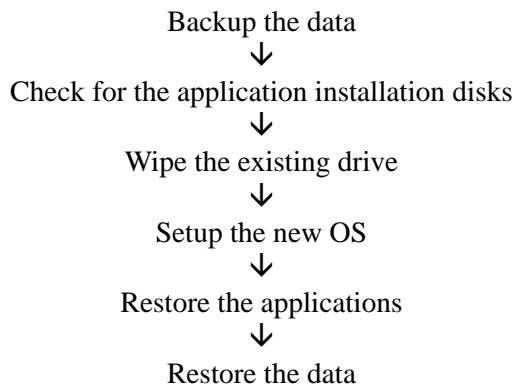
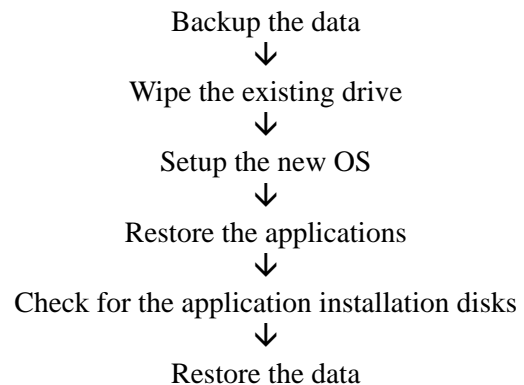
Which diagnostic tool is **not** used to **optimise** the performance of a computer system?

- A. disk defrag
- B. disk cleanup
- C. converting a file system
- D. system performance monitor

**Question 11**

Your father is the doctor in a small country town and he has decided to have the operating system (OS) of his work computer upgraded. As the local computer expert, you are asked to do the installation.

In what order will you perform the steps for this job?

**A.****B.****C.****D.****Question 12**

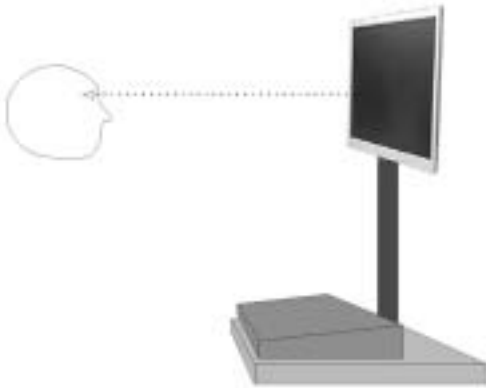
Defragmenting a hard disk will

- A. compress all the files stored on it.
- B. combine multi-part files into one part.
- C. create more free space on the hard disk.
- D. move all the data to the disk's centre, enabling it to spin faster.

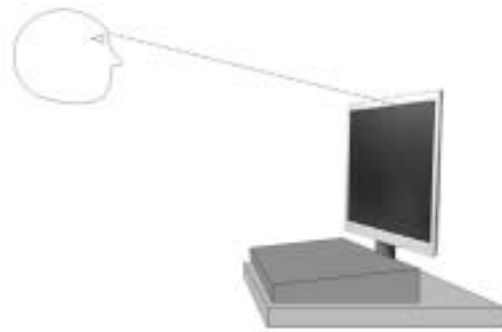
**Question 13**

Which one of the following diagrams shows the best position of a user's eyes in relation to the PC screen?

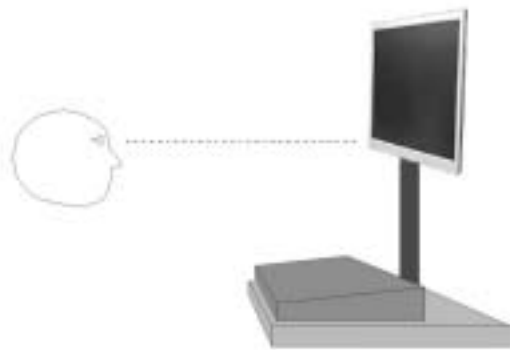
A.



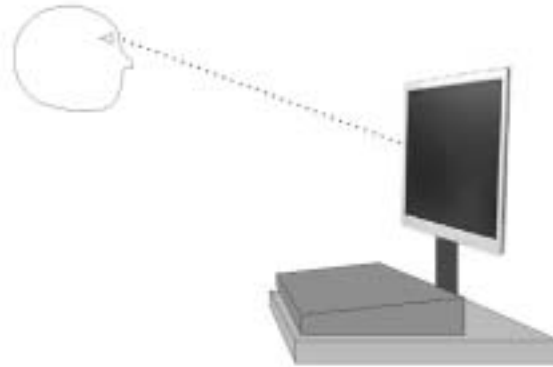
B.



C.



D.

**Question 14**

Karen had her workstation assessed according to her organisation's own OH&S requirements. The workstation passed. Karen still complains that her back gets cold in summer and hot in winter, but she says her feet are always comfortable.

This suggests that the organisation's OH&S standards do not adequately address

- A. lighting.
- B. ventilation.
- C. ergonomics.
- D. chemical exposure.

**Question 15**

After installing a piece of software, what is the purpose of an 'activation key' that is activated over the Internet?

- A. to unlock encrypted files
- B. to secure the software against hackers
- C. to ensure authorised use of the software
- D. to identify the name and brand of the software

**Question 16**

Michael prints photos at work on a colour inkjet printer. When Michael purchased the printer he also bought enough ink cartridges to last more than two years.

He runs out of ink and installs one of the two-year-old magenta cartridges, but is not able to print after installing it. When Michael checks his computer, the printer reports that it is connected properly, there is enough paper and it is ready to print.

The **most** likely cause of this problem is that

- A. his printer connection is faulty.
- B. his photo files are too big to print.
- C. the magenta cartridge has expired.
- D. the magenta cartridge's ink has dried up.

**Question 17**

*Guidelines for design, manufacture and testing of Lithium-Ion battery cells and packs in laptops* is most likely to be described in which type of standard?

- A. a project standard
- B. a template standard
- C. an industry standard
- D. an organisational standard

**Question 18**

Most computer operating systems have a boot mode known as 'safe mode'.

Safe mode boots the operating system with a minimum configuration and can be used to

- A. provide access to the network if the network card drivers have not been installed.
- B. allow software and hardware to be tested before the operating system is upgraded.
- C. solve problems when new hardware or a software installation is causing problems.
- D. install new hardware or software when it is not recognised during the boot process.

**Question 19**

Georgia automatically updates her PC every day with the latest antivirus updates. Once a month she does a full hard disk virus scan. One of these scans discovered a virus infection in a two-week-old file.

Which one of the following is the most likely cause?

- A. The antivirus system updates too often.
- B. Georgia has browsed to a website that can bypass her virus protection.
- C. A compressed file held the virus, which activated when the file was decompressed.
- D. The virus arrived in Georgia's PC before the antivirus system update that would detect it.



**Question 20**

Blake is responsible for setting up a multi-workstation, 24-hour-per-day Help Desk. Each workstation will contain identical fixed-height desks, with identical PCs. To ensure all Help Desk staff can comfortably use any keyboard, Blake's suppliers have recommended

- i.** foot rests
- ii.** wireless mouse/keyboards
- iii.** adjustable height gas-lift chairs

Which combination of these items should Blake recommend?

- A.** only **i.** and **ii.**
- B.** only **i.** and **iii.**
- C.** only **ii.** and **iii.**
- D.** **i., ii.** and **iii.**

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

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

**Question 1**

You discover a virus on your computer while at work and find that it has corrupted some of your document files. You contact the Help Desk and they send a technician to fix the problem.

Suggest two different things that the technician should do to assist you.

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

\_\_\_\_\_

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

\_\_\_\_\_

2 marks

**Question 2**

Ari's Florist has installed an invoicing software package on its computers. User manuals were sent to all the users after the software was installed. 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 Ari's Florist should now do to assist its users.

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

\_\_\_\_\_

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

\_\_\_\_\_

2 marks

**Question 3**

Suggest two preventative maintenance tasks that should be applied regularly to a laser printer.

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

\_\_\_\_\_

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

\_\_\_\_\_

2 marks

**Question 4**

Why is it important that people who frequently work with computers have good keyboarding skills?

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2 marks

**Question 5**

There are two commonly used operating system environments, GUI and CLI.

a. What do the abbreviations GUI and CLI stand for?

GUI	
CLI	

b. Give two reasons why most users tend to prefer the GUI environment.

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

2 + 2 = 4 marks

**Question 6**

a. List three items to include in an ergonomics checklist for a computer workstation.

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

b. Why should the ergonomics of a workstation be assessed?

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3 + 1 = 4 marks

**Question 7**

Jet Incorporated deployed twenty-five copies of a software application over a Client Server network for the use of twenty-five clients using the software at different times during the day. The Managing Director of the company asked the Network Administrator if the software was legal. The Network Administrator stated that the software was legal as the company had paid for a concurrent licence for fifteen users.

Has the company met its legal copyright obligation? Justify your answer.

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2 marks

**Question 8**

The table below shows part of a typical Help Desk log for a company that creates fashion magazines.

Date	Time	Name	Problem	What was done
12/11/2007	10:05	Claudia	She is trying to scan a photo but is not sure how to do it	Showed her how to scan using the imaging software and pointed out a list of instructions found on scanner
12/11/2007	11:15	Minh	He is trying to save his desktop publishing document onto a USB drive	Showed him how to plug his USB drive into his computer and how to save his document onto it

The company's Help Desk log is a database where users can submit requests via its Intranet system. Each time a user submits a request on the database, it gets emailed automatically to the Help Desk staff. You receive an email from the Help Desk system from Sarah. Unfortunately it is blank.

a. How could you find out what Sarah's Help Desk request was about?

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You establish that Sarah is having difficulty with her digital camera that she used to take pictures during a photo shoot. She mentions that she has plugged the camera into her computer, but is unsure of how to save her photos to her computer from the digital camera.

b. How would you solve Sarah's problem?

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c. Based on the Help Desk logs (including the one for Sarah's problem), what is the common support issue for the company?

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d. Recommend two different ways this support issue can be addressed for the company.

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

1 + 1 + 1 + 2 = 5 marks

### Question 9

Why are laser printers and photocopiers usually put into a separate ventilated room away from people's normal work spaces?

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1 mark

### Question 10

Fly By Night is a small business that supplies skilled labourers to companies. It employs twenty people from many cultural backgrounds. All employees have access to their own PC and the PCs have been recently networked into a small LAN. The receptionist is the only employee confident with her computer skills. You have set up email accounts for all the employees and have been asked to create user documentation to assist the users with the email technology.

List two employee differences that need to be considered when creating user documentation for Fly By Night.

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

2 marks

### Question 11

Carlo is installing an operating system onto a computer. When he gets to the step that asks for the network settings, he chooses '**obtain an IP address automatically**', and then keeps going with the next step.

a. From where does the computer automatically obtain the IP address?

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b. Why does the computer need an IP address?

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1 + 1 = 2 marks

**Question 12**

When surfing the Internet you receive the following web server error message.

**'404 File Not Found'**

The web server obviously cannot find the file you requested.

- a. Suggest two possible reasons for the situation where a requested file is not found and the error message above is generated.

Reason 1 \_\_\_\_\_

\_\_\_\_\_

Reason 2 \_\_\_\_\_

\_\_\_\_\_

- b. What course of action could you take to solve the problem?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 + 1 = 3 marks

**Question 13**

Identify from the following list all those people who should be included on a **workplace** OH&S contacts list. Place a tick next to the ones that should be included.

IT Manager

OH&S Manager

First Aid Officers

Social Club representative

Victorian OH&S help line

Main Office Contact Number

Equal Opportunity representatives

1 mark

**Question 14**

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

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_

4 marks

**Question 15**

Yambie Bank Ltd is a large bank that prides itself on customer service. Due to increased competition, the bank has decided to install Internet Banking as part of its service. One of the bank's customers, Fred, telephoned the customer service officer to report that someone had taken money from his account. When asked to explain why he thought his money had been stolen, Fred mentioned that his Internet Banking password would not work on the same day that the money was taken out. He had also checked his account balance via an ATM (Automated Teller Machine) to find that his balance was less than it should be. The customer service officer verified Fred's account balance and his changed password, and then suggested that his computer was probably infected by a Trojan virus.

a. What is a Trojan virus?

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b. Explain how the money could have been stolen electronically from Fred's account.

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c. Recommend two things Fred should do to protect his computer from viruses and hackers.

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

1 + 1 + 2 = 4 marks

**Question 16**

Jo purchased a new unbranded computer system from a local 'swap meet'. (A swap meet is a market for used computer equipment.) It included all of the hardware and the disks for the Original Equipment Manufacturer Operating System (OEM OS) and the appropriate drivers, although these were not installed.

- a. Is it legal to sell an OEM OS with an unbranded computer system? Explain your answer.

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Jo installs the OS but does not install the drivers. She then finds she cannot get full use of the hardware that makes up her system.

- b. Why is this so?

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- c. Suggest two potential problems with purchasing an unbranded computer system from a swap meet.

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

\_\_\_\_\_

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

\_\_\_\_\_

1 + 2 + 2 = 5 marks



**Question 17**

Rina is the most experienced spreadsheet user in the organisation. She is responsible for a new project, which requires skills she currently lacks. Her manager decides she should receive one-on-one training to bring her skills up to the level needed.

- a. What are three advantages of giving Rina one-on-one training, rather than sending her to a scheduled training course?

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

- b. Suggest two questions the instructor should include on a training feedback form.

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

3 + 2 = 5 marks

**Question 18**

Ace Motors is a company that specialises in selling sports cars. Harry, the sales manager, creates sales reports regularly. The company's database contains a report generator, which he could use to create new reports. The database runs on a networked computer. The report generator is complex to run and Harry is not too familiar with the database. He calls the Help Desk for support.

- a. The type of problem Harry is experiencing is (tick the correct box)

hardware related.

software related.

network related.

As the Help Desk officer on duty, you decide to create a user menu for the database that will simplify the report generation for Harry.

- b. What should you do before creating the menu?

\_\_\_\_\_

\_\_\_\_\_

- c. Suggest two types of user documentation that you could provide to help Harry in his use of the database software.

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

You show your tax invoice design to Harry before you create the report using the report generator.

- d. Why would this be important?

\_\_\_\_\_

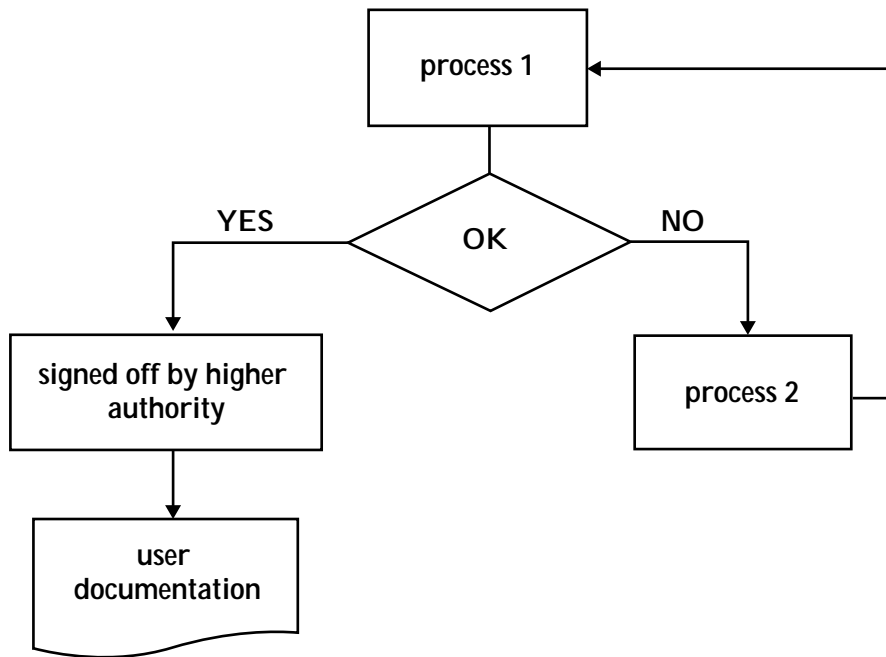
\_\_\_\_\_

1 + 1 + 2 + 1 = 5 marks

**SECTION B – continued**  
**TURN OVER**

**Question 19**

Below is a flowchart that represents the processes involved in User Documentation Sign-off.



Name the processes labelled process 1 and process 2 in the flow chart.

Process 1 \_\_\_\_\_

Process 2 \_\_\_\_\_

2 marks

**Question 20**

Sandra was in a hurry when she installed her new integrated office software package on her computer. The package was produced by an American company and contains word processing, spreadsheet, presentation and mail applications. Sandra did not experience any problems during the installation and she did not bother to change any of the default settings.

Sandra has since experienced difficulty when printing word processed documents. A document can be previewed, but when sent to the printer it will not print.

Suggest a reason for the problem and how you could fix it.

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2 marks

**Question 21**

Ryan has wireless Internet at home (a flat in a 5-storey apartment block) that he uses to check emails, browse websites and occasionally download the latest music as MP3 files. He has a wireless router and uses his notebook's wireless connection to access it. Lately he has noticed that after a few days in the month have passed, his Internet connection slows down a lot. He telephones the ISP to complain and is informed that he had used up his allowed download limit. Ryan is puzzled, as he knows that he hardly ever uses up the allowed download limit.

Suggest two possible reasons for Ryan's unexpected higher than normal usage.

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

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

2 marks

**Question 22**

Mai asks you for advice on how to email a large number of files to many clients. You recommend she should use a compression program.

Give three advantages for using a compression program in this situation.

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

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

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

3 marks

**Question 23**

A diagnostic program is used to monitor the CPU fan for a server running 24 hours a day on an ongoing basis. The program will send a text message to the system administrator's mobile phone if there are any problems.

a. Why is this diagnostic program being used?

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

The same diagnostic program also enables the overclocking of the CPU. Overclocking means to increase the clock speed of the CPU to beyond the manufacturer's specifications.

b. Suggest one advantage and one disadvantage of overclocking.

Advantage \_\_\_\_\_

\_\_\_\_\_

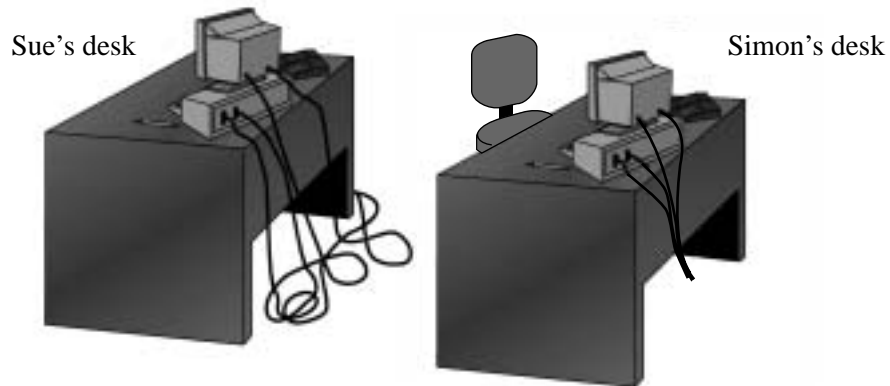
Disadvantage \_\_\_\_\_

\_\_\_\_\_

1 + 2 = 3 marks

**Question 24**

Sue and Simon work in the same office. The cords from Sue's computer are rather long and trail over the back of her desk to the floor. Simon works at the next computer and has to be careful not to roll his chair too far back.



- a. Why is this situation an OH&S issue?

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- b. How should the situation be fixed with minimum impact on the current seating arrangements?

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- c. What else should the OH&S manager do as a result of this issue?

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1 + 1 + 1 = 3 marks