

STUDENT NUMBER Letter

VCE VET INFORMATION AND COMMUNICATIONS TECHNOLOGY

Written examination

Thursday 5 November 2015

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

Writing time: 9.15 am to 10.45 am (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	20	20	20
B	18	18	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 correction fluid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 21 pages.
- Answer sheet for multiple-choice questions.

Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- All written responses must be in English.

At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

SECTION A – Multiple-choice questions**Instructions for Section A**

Answer **all** questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Question 1

Which one of the following would provide the most up-to-date and reliable documentation for a software product?

- A. a telephone Help Desk operator
- B. a complete manual found on a CD
- C. a user manual on the software developer's website
- D. a forum for posting questions and answers hosted by users of the software

Question 2

Which group of data sources should be used to analyse a business' environmental impact?

- A. performance targets, expert opinion, industry averages
- B. performance targets, industry averages, a friend's opinion
- C. an internet search, performance targets, industry averages
- D. industry averages, expert opinion, a business partner's opinion

Question 3

Annette has received new printer drivers to install on her company's computers.

The correct procedure for Annette to follow is to

- A. immediately remove the old printer drivers.
- B. plan to update the printer drivers after business hours.
- C. immediately replace the printer drivers on all computers.
- D. plan to remove the old printer drivers after business hours.

Question 4

Cilla needs to improve energy use in her ICT department.

To achieve energy efficiency targets, Cilla should

- A. check relevant stakeholder lists.
- B. examine the bills from suppliers.
- C. follow the Global Reporting Initiative.
- D. eliminate the use of hazardous and toxic materials.

Question 5

A Help Desk operator tells a client that their problem requires second-level support.

This means that the operator

- A. needs to search the internet for a possible solution.
- B. needs to consult the logs for any similar problem and solutions.
- C. is not sure of what the client has requested and needs to think about it.
- D. needs to escalate the request to a supervisor as it is beyond the operator's expertise.

Question 6

The principal at a local secondary school asks the ICT technician to show him how to use the mail merge feature on his word processor.

This is an example of

- A. one-to-one training.
- B. vendor-provided training.
- C. identification of training needs.
- D. provision of client documentation.

Use the following information to answer Questions 7 and 8.

A Help Desk operator receives a call from a client. The client says, 'I had to reboot because of an operating system update, but now I'm getting an "Operating system not found" error. How long will this take to fix? I've got deadlines to meet!'

Question 7

What immediate advice does the Help Desk operator need to provide?

- A. Reboot the computer.
- B. Power down the computer and wait for a technician to arrive.
- C. Turn the computer off at the wall, wait two minutes and then turn it on again.
- D. Remove all USB devices, and any CDs or DVDs in the computer, and then reboot the computer.

Question 8

What is the long-term fix for this client's problem?

- A. Set the hard disk drive with the operating system (OS) as a bootable drive.
- B. Reinstall the OS on the computer. Record the work in the logs.
- C. Change the OS boot parameters to auto mount the drive. Record the work in the logs.
- D. Put the hard disk as the first item in the CMOS boot order sequence. Record the work in the logs.

Question 9

All four of the following hardware items are required for a graphical user interface (GUI) OS, but only three of them are required for a command line OS.

Which item is **only** used in a GUI OS?

- A. mouse
- B. keyboard
- C. video card
- D. arithmetic logic unit

Question 10

Three examples of computer operations are:

- the printing of water bills every three months by the supply company
- the web browser warning the user that there are security issues with the site the user wishes to visit
- working on a presentation package and adding text, tables and graphics from other programs, which are also open

Which of the following options lists the process types for these three operations in the correct order?

- | | |
|--|--|
| <p>A. real-time
batch
multi-tasking</p> | <p>B. real-time
multi-tasking
batch</p> |
| <p>C. batch
real-time
multi-tasking</p> | <p>D. batch
multi-tasking
real-time</p> |

Question 11

In Victoria, who administers the environmental protection legislation that regulates the environmental impact of the ICT industry?

- A.** United Nations (UN)
- B.** Australian governments
- C.** Australian Computer Society (ACS)
- D.** Internet Corporation for Assigned Names and Numbers (ICANN)

Question 12

A school's computing facilities include printers, computers and network equipment.

Which option shows the preferred order of actions when making waste-management decisions about this equipment?

- | | |
|--|--|
| <p>A. prevention
minimisation
re-use
recycling
energy recovery
disposal</p> | <p>B. re-use
prevention
recycling
minimisation
disposal
energy recovery</p> |
| <p>C. prevention
re-use
recycling
minimisation
energy recovery
disposal</p> | <p>D. disposal
re-use
recycling
energy recovery
minimisation
prevention</p> |

Question 13

Caitlin has been asked to organise the creation of the user manual for a new software program that her company has created.

What is the best reason for asking an external consultant to help write the user manual instead of relying on the people who created the software?

- A. Programmers usually do not like writing documentation.
- B. The company does not have time to write the user manual.
- C. The company does not have anyone who can create a user guide.
- D. The people who created the software are very technical and may not write clearly for a target audience.

Question 14

Which of the following is the correct sequence for the creation of documentation?

- | | |
|---|---|
| <ul style="list-style-type: none"> A. plan draft review/edit test produce distribute maintain/revise | <ul style="list-style-type: none"> B. plan draft review/edit test distribute produce maintain/revise |
| <ul style="list-style-type: none"> C. plan test draft produce distribute review/edit maintain/revise | <ul style="list-style-type: none"> D. plan draft maintain/revise test produce distribute review/edit |

Question 15

Which group of four statements about a computer OS is correct?

- | | |
|--|---|
| <ul style="list-style-type: none"> A. It allocates and controls usage of hardware resources. It remains in memory at all times. It manages all other applications and utility software. It is loaded last. | <ul style="list-style-type: none"> B. It allocates and controls usage of hardware resources. It remains in memory at all times. It manages all other applications and utility software. It is loaded first. |
| <ul style="list-style-type: none"> C. It allocates and controls usage of hardware resources. It remains in memory at all times. It manages some other applications and utility software. It is loaded first. | <ul style="list-style-type: none"> D. It allocates and controls usage of hardware resources. It remains in memory at boot up and shut down. It manages all other applications and utility software. It is loaded first. |

Question 16

Before client approval is obtained, which of the following measures needs to be completed?

- A. The problem is assessed, a solution is investigated and documented, and technical support is provided.
- B. The software, hardware and network requirements are confirmed, a solution is investigated and documented, and technical support is provided.
- C. The problem is assessed, the software, hardware and network requirements are confirmed, and a solution is investigated and documented.
- D. The problem is assessed, a solution is investigated and documented, and any new components are obtained.

Question 17

The Chief Executive Officer (CEO) of a company contacts the Help Desk. She cannot access her email and needs to print an attachment for a meeting that starts in 10 minutes.

Which of the following sequences would be the best way to respond?

- A. Check the Help Desk logs for the solution.
Assign an urgent job to the technician who manages the email system.
Record the solution.
Close the job.
- B. Access the email archive to find the report and send it to the CEO's printer.
Check the Help Desk logs for the solution.
Record the solution.
Close the job.
- C. Assign an urgent job to the technician who manages the email system.
Access the email archive to find the report and send it to the CEO's printer.
Check the Help Desk logs for the solution.
Close the job.
- D. Check the Help Desk logs for the solution.
Access the email archive to find the report and send it to the CEO's printer.
Record the solution.
Close the job.

Question 18

A recently appointed senior manager has complained to the Help Desk that his mobile phone is no longer receiving work emails and new calendar appointments. The senior manager assures the Help Desk that there was no problem last week.

The Help Desk has completed the following tests with the senior manager's assistance.

Test	Description	Result
1	called the mobile phone from the Help Desk phone	mobile phone rang and the call was answered
2	used the mobile phone to call the main business phone number	successfully got through to the receptionist
3	used the internet browser on the mobile phone to find the Australian Parliament House website	website loaded and had this month's calendar of events on display
4	accessed the mobile phone settings to check that the security certificate for the mail server was installed	security certificate was there

After each of these tests, the email inbox was checked for the missing emails, but the emails did not appear. Which one of the following options will fix the problem, and get the manager's email and calendar working again?

- A. Reinstall the mail server security certificate on the mobile phone.
- B. Update the password for the manager's email account on the mobile phone.
- C. Completely shut down the mobile phone. Restart the phone and enter the SIM pin.
- D. Check for required software upgrades on the mobile phone. Install all waiting upgrades.

Question 19

Which list contains four measures that reduce the impact of ICT equipment on the environment?

- A. install automatic cut-out switch for lighting
require users to log in to printers before use
recycle toner and waste paper
use inkjet printers instead of laser printers
- B. raise the set temperature of the air conditioner in summer
require users to log in to printers before use
recycle toner and waste paper
program monitors to 'sleep' when inactive
- C. program monitors to 'sleep' when inactive
recycle toner and waste paper
program printers to 'sleep' when inactive
use inkjet printers instead of laser printers
- D. print only in black and white
scan documents rather than photocopying
install automatic cut-out switch for lighting
raise the set temperature of the air conditioner in summer

Question 20

Which one of the following options explains why a solid state drive (SSD) is not defragmented?

- A. The data is positioned on SSD sectors contiguously.
- B. The data is positioned on SSD sectors non-contiguously.
- C. All data on an SSD is located on one spiral track, which causes the data to be arranged contiguously.
- D. Positioning the data contiguously on an SSD would require many read/writes, reducing the life of the SSD.

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

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

Question 1 (1 mark)

Why should ICT support staff avoid using jargon with clients?

Question 2 (2 marks)

Sandra has been asked by senior management to gather suggestions from all stakeholders before implementing new performance improvement strategies.

List **two** methods of communicating with stakeholders that Sandra might use.

Question 3 (3 marks)

A company has many computers on its network. The company has decided to upgrade its operating system (OS). The IT department has recommended the purchase of a site license.

- a.** Outline **two** advantages of purchasing a site license for the OS. 2 marks

- b.** Suggest a situation in which a single-user license for an OS would be the best option. 1 mark

Question 4 (3 marks)

John is the Race Committee Chairperson of the Lake Eyre Rowing Club. He has been provided with a tablet computer so he can quickly look up the rules if the results of a race are challenged. However, he has not been able to connect to the website where the rules are found. Instead, he is getting a message saying that ‘The server cannot be found’.

- a.** List **two** possible causes for this type of problem. 2 marks

- b.** Choose one cause from **part a**. Explain how to remove this cause so that John will gain access to the rules. 1 mark

Question 5 (4 marks)

Define the following commonly used computer terms.

Term	Definition
app	
corrupt profile	
social engineering	
encryption protocol	

Question 6 (3 marks)

Karen's organisation has a mission-critical application. This application must operate continuously. MCA Assist is the company that provides support for this application if anything goes wrong.

Explain the following terms in the service-level agreement between MCA Assist and the organisation.

- Response time _____

- Resolution time _____

- Sign-off _____

Question 7 (4 marks)

Pedro is a new employee at a workplace. He has trouble using his hands for fine motor control due to uncontrolled muscle spasms, but he can accurately control his home computer with his feet. His home computer uses a different OS from the one used in the work environment.

- a.** Suggest **one** change that could be made to Pedro's computer work area to cater to his particular needs. 1 mark

- b.** Suggest a change that could be made to the OS and the installed software on Pedro's work computer in order to cater to his particular needs. 1 mark

- c.** What are **two** things that would need to be done before implementing the changes suggested in **part a.** and **part b.**? 2 marks

Question 8 (2 marks)

A newly purchased computer game recommends 2 GB RAM, 8+ GB free on hard disk drive (HDD) and a 2 GB video card.

Explain why three different memory recommendations are suggested.

Question 9 (4 marks)

Ethan works in the Notebook Support Centre at a local school and has been asked to create an online feedback system for the school.

List and explain **two** factors that need to be considered when preparing this system.

Question 10 (4 marks)

When he arrived at work, Bill plugged his computer into the network via his usual blue cable. When he turned on his computer, he did not have internet access. Bill rang Jeannie at the Help Desk for assistance.

Jeannie said she would check the network switch.

- a.** Why did Jeannie check the network switch? 1 mark

- b.** What test did Jeannie run? 1 mark

- c.** Jeannie rang Bill back to say that the switch was working.

What tests will Jeannie now ask Bill to run? 2 marks

Question 11 (6 marks)

At a presentation on copyright and piracy, the speaker said that it would not be necessary to take notes as the presentation would be made available to attendees. At the end of the presentation, a show of hands established that 30 people would like a copy of the presentation. The speaker asked her assistant to print 40 copies.

- a. What is **one** advantage of sharing the presentation electronically? 1 mark

- b. Provide **one** reason why the speaker may not find it acceptable for the presentation to be shared electronically. 1 mark

- c. Other than printing, list **two** methods of sharing the presentation. 2 marks

- d. Forty copies of the presentation have been requested. The presentation will be printed one slide per page.

Suggest what is wrong with this practice.

2 marks

Question 12 (7 marks)

Self-paced tutorials are a type of user documentation.

- a. Explain the purpose of self-paced tutorials. 1 mark

- b. Identify **two** features of a self-paced tutorial and explain why each of these features is beneficial to the end user. 4 marks

- c. Name **one** design aspect that needs to be considered when creating a self-paced tutorial and describe how this aspect can affect the design of the self-paced tutorial. 2 marks

Question 13 (3 marks)

Jill is creating user documentation for her new ebook readers, but is unable to decide which form of documentation is suitable.

Complete the table below by providing two advantages and one disadvantage for each form of documentation given.

	Paper-based documentation	Electronic documentation
Advantage	1.	1.
	2.	2.
Disadvantage	1.	1.

Question 14 (7 marks)

Yanni is a teacher at a local secondary college. He leases a notebook computer through the Education Department from XYZ Investment Bank. Yanni calls the school's local ICT technician to state that the cable on his power adaptor for the notebook has been damaged. The technician refers Yanni to the company that supplied the notebook.

- a.** Why does the technician not ask Yanni for more information or to see his notebook? 1 mark

- b.** The following week, Yanni rings the technician to say that he cannot access the internet at school.

- i.** What assistance should the technician provide to Yanni? 2 marks

- ii.** Why does the technician provide more assistance to Yanni this time? 1 mark

- c.** A teacher rings the technician to report that two mice in one of the school's computer labs have been damaged and need replacement.

What is the technician required to do about this and why? 2 marks

- d.** At the completion of each of the above problems, what should the technician do? 1 mark

Question 15 (8 marks)

The ICT department of a rural council has decided to set targets to reduce its use of electricity. The ICT department's peak use is in summer.

- a.** Describe **two** techniques the ICT department could use to gather information on its electricity use. 2 marks

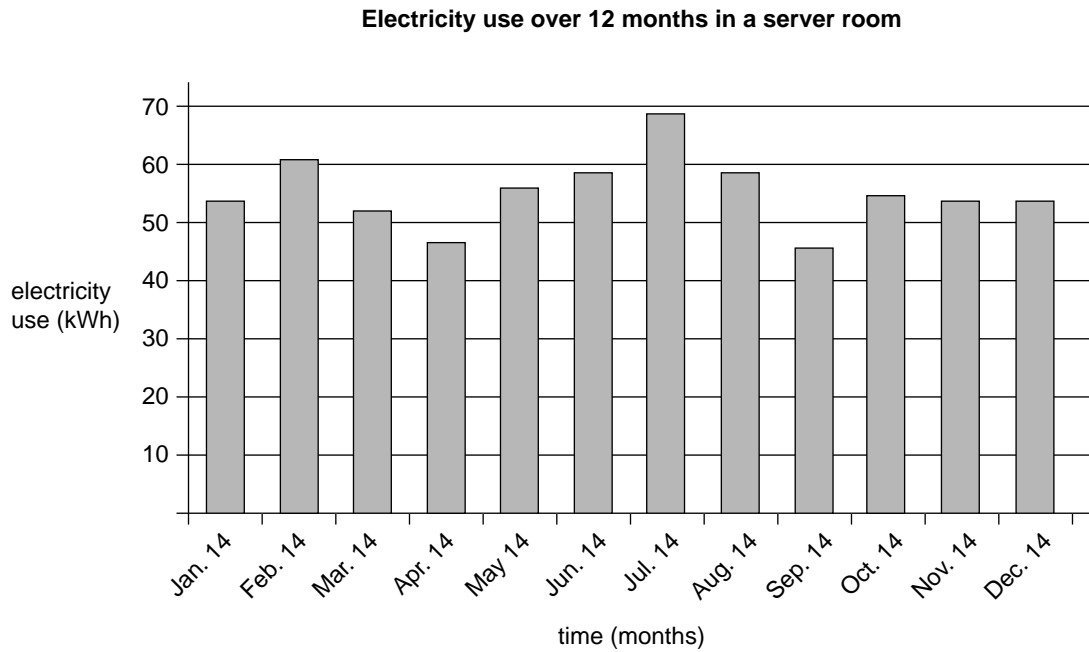
- b.** Suggest **two** strategies involving hardware that could reduce electricity use. 2 marks

- c.** Suggest **two** strategies involving software that could reduce electricity use. 2 marks

- d.** An external consultant has suggested that the ICT department should add some solar panels. Suggest **two** advantages of the solar panels for the ICT department. 2 marks

Question 16 (2 marks)

Below is a graph showing electricity use for a server room located in a tropical holiday resort in northern Queensland. The resort is busiest during the southern winter months, when domestic tourists visit for the warmer weather.



Explain the electricity use in the server room for July 2014.

Question 17 (3 marks)

Maria is installing an OS on her computer.

Show the correct order of steps that she will need to follow by numbering the steps from 1 to 6 in the table below.

Step	Number
accept license agreement	
check hardware requirements prior to attempting the installation	
continue with installation wizard until asked to reboot	
select install	
select installation option (typical or custom)	
insert CD/DVD/USB	

Question 18 (4 marks)

An ICT meeting was held to discuss environmentally sustainable work practices. Jack suggested that all individual desktop printers be removed from staff members' offices and replaced with a limited number of centralised photocopiers.

- a.** Discuss how this would improve practices and resource efficiency in the workplace. 2 marks

- b.** Explain how you would evaluate whether the improvements discussed in **part a.** had been achieved. 2 marks
