

2014 VCE VET Information and Communications Technology: GA 2: Examination

GENERAL COMMENTS

The 2014 VCE VET Information and Communications Technology examination was the first examination for the revised program. The exam assessed the elements, performance criteria and underpinning knowledge and skills in the following units of competency:

- ICAICT301A Create user documentation
- ICAICT302A Install and optimise operating system software
- BSBSUS301A Implement and monitor environmentally sustainable work practices
- ICASAS305A Provide IT advice to clients
- ICASAS306A Maintain equipment and software.

In general, students performed well in the examination and attempted most questions. The majority of students handled the questions from each unit of competency reasonably well.

SPECIFIC INFORMATION

This report provides sample answers or an indication of what answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding resulting in a total more or less than 100 per cent.

Section A – Multiple-choice questions

The table below indicates the percentage of students who chose each option. The correct answer is indicated by shading.

Question	% A	% B	% C	% D	% No Answer	Comments
1	53	22	22	3	0	
2	2	86	8	4	0	
3	54	1	2	43	0	
4	55	16	9	20	0	
5	31	45	7	17	0	
6	14	22	22	42	1	Giving preference in future purchases to recyclable materials (option C) will have an immediate environmental impact. The other options involved only planning or investigation.
7	11	75	11	3	0	
8	5	2	9	84	0	
9	2	4	14	80	0	
10	24	7	65	4	0	
11	68	27	2	2	0	
12	2	16	14	69	0	
13	5	5	11	79	0	
14	28	29	6	37	0	This question required an evaluation of the settings that would reduce energy use, while avoiding data loss and inconvenience to users. Options A and D would inconvenience users due to them having to log in to resume. Option B provided greater power savings than option C.
15	6	3	24	67	0	

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Question	% A	% B	% C	% D	% No Answer	Comments
16	47	40	7	5	0	The use of a mouse must be a multi-tasking system as it is ongoing and fits between other tasks. Output of a video card must be continuous or real-time (i.e. not just between other tasks). A computer file system for saving or retrieving a file (or file lists) is a batch process. It has a definite start time and a definite stop time. Connecting a web page into a browser also has a definite start time and a definite stop time (i.e. a batch process).
17	12	38	41	10	0	
18	8	14	63	14	0	
19	17	3	49	29	0	
20	55	12	5	28	0	Many students selected option A, but this was incorrect. It is inappropriate to decide when a task should be done before receiving approval to do the task.

Section B – Short-answer questions

Question 1

Marks	0	1	2	Average
%	13	81	6	1

Four of:

- active listening to clients and colleagues
- contacting vendor or maintenance organisations
- on-site examination of hardware/software
- questions and answers
- reviewing technical advice about the organisation.

Question 2a.

Marks	0	1	Average
%	17	83	0.9

Access to the payroll is restricted:

- for prevention of fraud/unauthorised access
- so that access can be monitored.

Question 2b.

Marks	0	1	Average
%	56	44	0.5

IT need access to be able to support the payroll system when there are problems. By having individual access, changes can be tracked.

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Question 3

Marks	0	1	2	Average
%	15	15	70	1.6

The redesigned template needed to address the three issues identified by the evaluation. For example:

	Job description	Request date	Requested by	Assigned to	Date started	Date completed	Response date
1.							
2.							
3.							
4.							
5.							

Question 4a.

Marks	0	1	Average
%	84	16	0.2

Style guide/Style manual/Documentation standards

Question 4b.

Marks	0	1	2	Average
%	26	49	25	1

Two of:

- Rendi knows which fonts and point sizes to use.
- Rendi knows which grammar and spelling options are to be used.
- Rendi does not need to design the page layout.
- Rendi will be able to maintain a consistent format throughout the company's user guides.
- Rendi will be able to ensure compliance with industry and international standards for software user documentation.
- Rendi will be able to produce a user guide that is easier for users to follow.

Question 5a.

Marks	0	1	2	Average
%	14	50	36	1.2

Two of:

- less energy consumption
- it is a cheaper upgrade as cables are cheaper than a computer
- less equipment to dispose of next time
- fewer software licences to buy
- better security
- easier to install/back up/upgrade
- can afford better equipment if buying less.

Question 5b.

Marks	0	1	2	Average
%	46	44	11	0.7

Two of:

- less privacy (secretarial work might briefly be seen from the counter)
- single point of failure (only one computer)
- OH&S considerations due to extra cables on floor.

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Question 5c.

Marks	0	1	Average
%	21	79	0.8

- Preventative maintenance: after three years hard disks are nearing their life's end.
- New computers will be faster and have upgraded operating systems, features and efficiencies compared with older ones.
- After three years the computers will have devalued and are probably not worth much.
- After three years the computers are most likely out of warranty.

Question 6a.

Marks	0	1	2	3	4	5	6	Average
%	24	30	15	11	3	3	14	2.1

	Options	Justification
Less impact	solid state drives (SSDs)	shorter life, but very low energy use to run
Medium impact	2.5 inch 7200 rpm HDDs	long life, but needs more energy than SSDs to run
Most impact	network attached storage (NAS)	long life, but much energy needed to run and costly to build

Question 6b.

Marks	0	1	2	Average
%	56	25	19	0.7

Network attached storage (NAS): replace 20 HDDs with one central unit, as the question indicated that the aim was to have a lower impact on the environment and be mindful of the organisation's budget. One NAS uses less energy than 20 HDDs or 20 SSDs.

Question 7a.

Marks	0	1	2	Average
%	58	28	14	0.6

The IT Help Desk would not tell Bill to hang up and communicate via the form as this would not foster a good relationship between the Help Desk and the client. As they are already talking and the solution is easy, IT would reset the password and give him a temporary password. They would also make sure he knows how to change the password and train him to use the online form for next time. If he has forgotten his password, he will not be able to access the online form.

Question 7b.

Marks	0	1	2	Average
%	16	51	33	1.2

The online form would be used as it (two of):

- is a means to have automation of logging IT requests
- saves time for IT staff as they are not continually interrupted by calls
- forces the client to be specific about the request
- allows IT staff to allocate tasks to the appropriate IT person, to update the form so the client can view progress and the client can provide feedback on same form
- is easier to schedule tasks.

Question 7c.

Marks	0	1	Average
%	31	69	0.7

One of:

- a working computer is needed to report any fault
- clients may view the forms as creating more work for them and less for IT staff
- IT staff having less direct contact is not good for customer relations.

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Question 8a.

Marks	0	1	2	3	Average
%	31	25	31	12	1.3

A graphical user interface (GUI) is provided in an operating system because:

- it is more intuitive (or easier to learn/use)
- it is the expected interface currently
- it often provides visual feedback on the task at hand
- it involves less typing of instructions
- users don't need to know the detailed lexicon and syntax of command line usage
- multitasking is simpler.

Question 8b.

Marks	0	1	Average
%	84	16	0.2

Additional hardware needs include:

- a pointing device (mouse, track ball, etc.)
- human interface device (HID) (touch screen, etc.)
- a better video card as more detail is required on a screen for a GUI.

Question 8c.

Marks	0	1	Average
%	54	46	0.5

One of:

- Commands are usually completed more quickly.
- Processing multiple similar tasks can be automated (batched).
- Some commands are not possible through the GUI.

Question 9

Marks	0	1	2	Average
%	26	45	29	1

The correct sequence was:

1. *Assess the problem.*
2. **C.** Identify the component concerned.
3. *Perform a comparison of the existing technique with a possible replacement.*
4. **D.** Analyse the test result.
5. *Review the specifications of both the existing technique and the potential replacement.*
6. **A.** Plan the component upgrade.
7. **B.** Gain approval for the replacement.
8. *Obtain the components.*
9. *Replace the equipment.*

One mark was awarded to students who completed the sequence in one of the following orders.

- **C., D., B., A.**
- **B., D., A., C.**
- **D., C., A., B.**
- **C., B., A., D.**
- **C., A., D., B.**
- **A., D., C., B.**

Question 10a.

Marks	0	1	2	3	4	Average
%	10	15	25	18	33	2.5

Issues (two of):

- configuration of wireless access points: share a WPA or WEP key, or make it open access. Could have more than one device per person accessing the network and so demand on existing wireless access points could be greater

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- number of devices updating/downloading apps using the internet connection
- security of what comes into the company network. Virus control is unmanaged as some staff may have different or no antivirus software installed
- company data copied to staff computers may not be adequately backed up or kept secure
- compatibility issues with operating systems and/or file formats.

Question 10b.

Marks	0	1	2	Average
%	23	45	32	1.1

The solutions needed to relate to each of the two issues listed in Question 10a. For example:

- Obtain trends/compare usage and availability of bandwidth and adjust accordingly.
- Mandate that all employees must use the company standard antivirus product.
- Mandate that employees back up their systems to the same schedule as the network.
- In-service staff on appropriate file formats and version control.

Question 11a.

Marks	0	1	2	Average
%	56	37	6	0.5

Two of:

- collect electricity/gas (heating)/paper bills (use utility apps)
- measure IT equipment usage, power meters, etc.
- check print server's printing reports, number of pages printed, etc.

Question 11b.

Marks	0	1	2	Average
%	18	58	24	1.1

Two of:

- review/adjust procedures for operating IT equipment (monitors/computers left with power on when not in use)
- analyse usage patterns
- develop targets for energy use
- replace energy-wasteful equipment with more efficient devices, e.g. HDDs with SSDs, laser printers with inkjet printers.

Question 11c.

Marks	0	1	Average
%	26	74	0.8

- the staff in the office
- the company paying the current bills

Question 11d.

Marks	0	1	2	Average
%	16	79	5	0.9

Four of:

- ensure documents are not printed until they are fully proofread on-screen
- ensure only the exact/required number of copies are printed
- review/investigate more electronic printing (more soft copies), e.g. publishing to the internet/websites/tablets for minutes, etc.
- investigate lower-wattage printers
- introduce compulsory double-sided printing
- smaller margins, smaller font size, appropriate line spacing
- encourage external suppliers, contractors and customers to accept communication via electronics methods.

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Question 12a.

Marks	0	1	Average
%	65	35	0.4

- As it has been developed by the company, the members would be best at knowing what to include in the documentation.
- Documenters may need access to the developers to explain the use and actions of the hotkeys.

Question 12b.

Marks	0	1	2	Average
%	24	63	14	0.9

Printed: It should be on a card or template that fits over the keyboard and allows the users to find the hotkeys to complete tasks quickly and efficiently.

Students who selected electronic were able to gain one mark if their justification was appropriate.

Question 12c.

Marks	0	1	2	Average
%	69	17	14	0.5

Hotkey (in alpha sequence)	Description of function
Hotkey 1	Description 1
Hotkey 2	Description 2
etc.	etc.
Function (in alpha sequence)	Hotkey
Description 1	Hotkey 1
Description 2	Hotkey 2
etc.	etc.

One mark was awarded for setting out in a table or a template that addressed the hotkeys and one mark for suitable suggested content showing quick and efficient looking up of the hotkeys with no lengthy paragraphs to read.

Question 13

Marks	0	1	2	3	4	5	Average
%	24	6	12	25	33	1	2.4

- The computer could be set to sleep mode after a short time or turned off when not in use.
- The monitor could be set to sleep mode after a short time or turned off when not in use.
- The laser printer could be turned off when not in use or replaced with an inkjet or other lower energy use printer.
- The scanner could be turned off when not in use.
- The NAS, modem, router or switch could be set to sleep mode after a short time. It is unwise to turn them off when not in use.

Question 14a.

Marks	0	1	2	3	4	Average
%	26	31	29	10	3	1.4

- Log in as administrator and check the permissions for Ronnie.
- Log in as administrator and check if Ronnie is logged on. If not, need to get Ronnie to log on to the network.
- Go to the operating systems printer support module and check if Ronnie is authorised to print. If he is not, add him.
- Check if Ronnie's notebook has the printer installed. If it does not, go to where the OS adds a printer and get the OS to install the drivers and printer.
- Print the file.

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Question 14b.

Marks	0	1	2	3	Average
%	42	35	17	6	0.9

- how to locate, download and install the correct network printer driver
- how to select the correct printer driver in the print dialogue boxes
- how to test that the notebook is connected to the network

Question 15a.

Marks	0	1	2	Average
%	12	40	48	1.4

Difference	Words to be used	SSD	HDD
<i>cost per GB</i>	<i>less costly or more costly</i>	more costly	less costly
<i>capacity</i>	<i>smaller or larger</i>	smaller	larger
<i>power usage</i>	<i>greater or lesser</i>	lesser	greater
<i>file storage speed</i>	<i>slower or faster</i>	faster	slower

Question 15b.

Marks	0	1	Average
%	49	51	0.5

- computers that are faster when booting
- computers that are faster in both loading and swapping (running)
- computers that are more stable

Less power usage was not acceptable.

Question 15c.

Marks	0	1	2	3	Average
%	77	12	9	3	0.4

Disk image via network	Disk image via disk	Direct imaging
<ul style="list-style-type: none"> • create the two disk images • put the images on the network • create a network boot disk • install the SSD into the computer • boot the computer to the network and deploy the images • remove the boot disk and restart the computer • complete the setup (computer name, licencing, etc.) 	<ul style="list-style-type: none"> • create the two disk images • create a bootable DVD containing the imaging software and images • install the SSD into the computer • boot the computer with the DVD and deploy the images • remove the DVD and restart the computer • complete the setup (computer name, licencing, etc.) 	<ul style="list-style-type: none"> • install the original SSD and HDD into the second computer along with the existing drives • boot the second computer with a bootable DVD/CD with the imaging software • use the software to clone the drives (being careful not to do it the wrong way) • remove the original drives and restart the computer • complete the setup (computer name, licencing, etc.)