



2009 **VCE VET Information Technology GA 2: Written examination**

GENERAL COMMENTS

In 2009, 453 students sat the VCE VET Information Technology examination. In general, students coped well with the examination format and attempted most questions.

As in previous years, a significant number of students merely reworded or rewrote questions without adding any new information. Students could have better spent their time elaborating on the answers they did know. Many students commenced their answers by copying or rephrasing the question stem. This technique wastes valuable examination time and fills up the answer space.

Too frequently, students failed to read the question stem carefully. Instead, they recognised a key word or two and presented a factual answer related to those words that was out of context and did not address the question. This was most evident in Section B but also occurred in Section A.

Students should ensure that their writing is legible. If the assessor cannot decipher what is written, no marks can be awarded. Many students did not display sufficient care with their terminology; for example, where the correct response was 'drive' (i.e. hardware), the response 'driver' (i.e. software) gained no marks. Many responses treated the terms 'backup' and 'restore' as synonyms. Similarly, 'ink' and 'toner' are not interchangeable terms.

Students continue to display above average knowledge and understanding of topics of everyday interest, for example, games, video and safety issues.

Questions that required analysis proved challenging for students, and a number of responses lacked sufficient detail or were only vaguely related to the situation presented in the stem. In contrast, a few students produced unexpected, but well-thought-out, valid answers. In questions that asked for more than one response, students who repeated answers, or provided similar answers, failed to gain full marks.

The majority of students handled the questions from each unit of competence reasonably well. In general, questions based on 'Apply occupational health and safety procedures' and 'Install and optimise operating system software' were well answered. However, some students appeared to have difficulties suggesting solutions to client problems in the competencies 'Provide advice to clients' and 'Create user documentation.'

It is recommended that:

- students practise handwriting as part of their examination preparation
- students use a pen, rather than a pencil, for their responses to Section B
- students who decide to change a response should cross it out and start again. Marks cannot be awarded if assessors cannot determine the intended answer
- teachers remind students to read the information given in the stem of the question carefully and refer appropriately to this context in their answer.



SPECIFIC INFORMATION

Section A – Multiple-choice questions

The table below indicates the rounded percentage of students who chose each option. The correct answer is shaded.

Question	% A	% B	% C	% D	Comments
1	5	74	8	13	
2	3	48	48	1	Option C was incorrect as it is unlikely that a user will need to back up their programs, as opposed to data, which was not an option.
3	1	88	10	1	
4	57	28	13	3	
5	1	3	5	91	
6	3	2	73	22	
7	21	13	60	6	
8	46	8	19	27	Option A was incorrect as flowcharts are regarded as technical documentation. All of the document types in option D were user documents.
9	33	21	17	29	Option A was too infrequent – employees would be at risk for up to 12 weeks.
10	17	15	59	8	
11	4	3	36	57	
12	18	42	21	19	Option C was the best answer, as organisational standards will take priority over industry standards when both are available. Option B, training standards, does not apply to document production.
13	24	6	5	65	Option D was incorrect as the server is 'hot-swappable' and does not need shutting down.
14	45	3	48	4	
15	12	32	18	38	Benchmarking is carried out in a standard environment (for example, the user's workstation) under normal conditions, eliminating option A. Option D was abnormal (out-of-hours). Students who chose option B might have confused the terms 'benchmarking' and 'testing,' which are not interchangeable.
16	26	3	12	58	
17	3	94	1	2	
18	68	20	4	9	
19	9	40	47	4	Option C implied that the Help Desk was in a position to recommend ad-hoc hardware changes and this is usually the prerogative of higher management.
20	52	29	13	6	



Section B – Short answer questions

For each question, outline answer(s) are provided. In some cases, other answers also gained marks. Specific comments on student performance are provided where relevant.

Question 1

Marks	0	1	2	Average
%	39	32	29	0.9

Two of:

- provide training (one-to-one or group)
- provide user documentation (user manual, training video, etc.)
- ask Todd to access the help function on the spreadsheet software and point out where it is
- ask him to look up a specific website on the Internet.

A surprising number of students did not respond to this question. Students need to be aware that doing someone's work for them is not helping them to be able to do it themselves.

Question 2

Marks	0	1	2	3	4	Average
%	2	4	14	38	43	3.2

All of:

- the monitor is too high (but not 'the monitor is tilted')
- knees are not bent when lifting/using their back instead of their legs
- cool air is blowing directly onto the user
- poor posture when sitting at the computer/the chair is too low/the keyboard is too high.

Most students demonstrated a good understanding of the Occupational Health and Safety (OH&S) issues; however, responses to the third picture were the weakest.

Question 3

Marks	0	1	2	3	Average
%	13	12	36	39	2

Three of:

- written for the skill/knowledge level of the audience
- format/layout is user friendly (clear and consistent)
- worded at the right level/appropriate language
- appropriate diagrams or screen dumps
- no computer jargon
- correct grammar and spelling
- no detailed modification/installation instructions.

Other relevant comments on format and content were also accepted. No marks were awarded where students merely listed types of user documentation. Some students gave the response 'accessibility of a document'; however, this is not a property of the document, but a property of the organisation that uses the document.

Overall, this question generated a large number of good answers, demonstrating students' understanding of documentation design.

Question 4

Marks	0	1	2	3	Average
%	1	3	23	73	2.7

All of:

- set up a time for the training that will cause minimal disruption to the manager
- demonstrate how to access the software that the manager will need to use
- ensure that the manager has a working login account/password and can access their email.

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Students showed a good understanding of the priorities of help processes.

Question 5a–b.

Marks	0	1	2	Average
%	26	57	17	0.9

Question 5a.

Phishing directs the user to a fake website in order to retrieve their personal details for fraudulent activity.

Most students understood the concept of obtaining personal information; however, relatively few linked this concept to the idea of a fake website or fraudulent activity. Students' knowledge of phishing has improved.

Question 5b.

Either of:

- the computer has a virus and needs to be scanned by an antivirus
- warn the friend of the dangers of phishing and/or the 'MyFace' website.

Question 6a.

Marks	0	1	Average
%	81	19	0.2

Accounts input operator

The other options given in the question were not **primary** targets, although some might use the documentation in their work.

Question 6b.

Marks	0	1	Average
%	36	64	0.6

Link on corporate intranet

The other ways listed were less available or less easily updated.

Question 7

Marks	0	1	2	Average
%	39	44	18	0.8

Two of:

- reverses driver updates to previous settings
- reverses operating system updates to previous settings
- undoes software installations
- undoes configuration changes.

Despite the clear definition in the question stem, many students referred to a standard data restore in their answers, for which they gained no marks. Others provided irrelevant information on operating system repair, system backup or data backup procedures.

Question 8a.

Marks	0	1	Average
%	18	82	0.8

Hardware related

A large majority of students understood that the type of problem is not network related, as the printer is USB-connected. It is not software related, as printing stopped during the print job.

Question 8b.

Marks	0	1	2	Average
%	33	49	18	0.8

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Two of:

- paper jam
- printer out of toner or paper
- power or data cable disconnected/printer not turned on/printer offline
- letter instead of A4 paper
- driver issues.

Many students incorrectly referred to ink in their answers. Students are expected to know the differences between toner and ink, and laser and ink-based printers. The question stem referred to common problems; some students who showed little or no understanding of laser printer usage, or suggested unusual or uncommon problems, failed to gain marks.

Question 9

Marks	0	1	Average
%	56	44	0.4

Run four in-house courses, spread over six weeks.

Justification: All staff will be trained, with minimal disruption.

The other three options were incorrect or inappropriate because:

- issue the users with the new user manuals, quick reference cards and an intranet list of frequently asked questions: there is no guarantee of competence
- send all the users to the next off-site training course run by the system supplier: all staff will be absent at the same time
- provide one-to-one training to those staff having difficulty with the new system: this will be a matter of too little, too late.

Question 10a.

Marks	0	1	2	3	4	Average
%	4	8	28	37	22	2.6

All of:

- quick start guide
- frequently asked questions (FAQ)
- company policy and procedures guide
- context sensitive help.

Question 10b.

Marks	0	1	Average
%	28	72	0.7

Any of:

- index
- content page
- glossary
- hyperlinks
- search feature.

Question 11a–c.

Marks	0	1	2	3	Average
%	10	28	39	23	1.8

11a.

Any of:

- lighter for handling
- less **harmful** radiation from the screen (but not 'no radiation')
- less flicker in the screen
- cathode ray tubes (CRT) can implode from severe stress; liquid crystal displays (LCD) will only crack
- cathode ray tubes can hold residual high voltage
- CRT screens contain hazardous chemicals.

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No marks were awarded for answers about less (unqualified) electromagnetic radiation (EMR). The device emits light, which is a form of EMR.

11b.

Any of:

- ozone/toxic gas production
- hazardous toner spills/leaks
- too noisy/hearing hazard
- glare/radiation from the scanner in photocopiers could be dangerous/harmful to eyes.

No marks were awarded for answers that only implied less distraction, or users getting exercise while collecting printouts.

11c.

It is more stable; there is less chance of it tipping over.

Some students thought that the fifth wheel was a spare; others thought it was there for heavier people.

Question 12a–c.

Marks	0	1	2	3	4	Average
%	4	14	31	36	15	2.4

12a.

Either of:

- to reduce storage load on the email server
- to get corporate information moved/stored in a more centralised location rather than in many different email accounts.

Many students understood the impact on the organisational servers; however, answers about removing viruses were not rewarded.

12b.

Some of the essential start-up files are missing from the Windows/OS folder or the hard drive.

The impact on the operating system and/or the start-up process was required.

12c.

Ensure Kevin's files are on the computer, restored from the network (or some other) backup as well as any of:

- re-image the computer with the company's standard installation
- repair/reinstall Windows/OS **and** other applications
- replace his computer with another preconfigured computer.

Many students did not approach this question from a large business perspective and failed to consider re-ghosting or swapping in an alternate preconfigured PC from corporate stores. However, while repairing or reinstalling the OS was acceptable, to gain full marks this needed to be followed by restoring the data files from network storage or other backups.

Question 13a.

Marks	0	1	Average
%	21	79	0.8

Firewall

Question 13b.

Marks	0	1	Average
%	67	33	0.3

Any of:

- Internet access software such as the Internet browser (brand names were accepted)
- Internet chat programs (brand names were accepted)

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- other Internet-capable software, for example, games.

Many students gave answers that explained what the controls do and not what **software** they control.

Question 13c.

Marks	0	1	Average
%	33	67	

Blocks access to pornography, hate mail, recipes for explosives or other inappropriate sites, or the times that sites can be accessed.

Question 14a.

Marks	0	1	Average
%	40	61	

Discuss your observations with the OH&S Manager.

Question 14b.

Marks	0	1	Average
%	50	50	

One of:

- submit documentation to OH&S Manager
- plan documentation changes with OH&S Manager
- ensure OH&S documentation is updated.

Question 15a–b.

Marks	0	1	2	Average
%	8	13	79	

15a.

Joanne's DVD drive does not support Blu-ray discs as they are in a different format.

15b.

Any of:

- replace the drive with a Blu-ray drive (also plays older DVD and CD formats)
- install an additional Blu-ray drive
- buy a non-Blu-ray version of the movie.

Most students performed well on this question; however, a few students incorrectly suggested that updated drivers would be sufficient.

Question 16a.

Marks	0	1	Average
%	77	23	

Mechanical

Many students incorrectly assumed that this cable problem was electrical.

Question 16b.

Marks	0	1	2	Average
%	17	50	34	

Any two of:

- tape the cable to the floor/put a mat over the cable
- run the cable under the carpet/floor
- use the original network port and coil/tie the long cable up out of way
- set up a temporary or permanent wireless connection
- move the workstation closer to the network port.

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Although running the cable around the door or through the roof seemed like a good idea, the five-metre cable was too short to do this.

Question 17

Marks	0	1	2	3	4	5	Average
%	1	1	4	18	34	42	4.1

Problem category	Example
Network	A user has forgotten their password and cannot log into the system and access the Internet.
Software	The desktop publishing package displays machine code characters instead of English characters when a document is opened.
Hardware	A 3D action strategy game is running very slowly.
Training	A user cannot remember how to use an advanced spreadsheet feature.
Hardware	From time to time the computer stops working due to faulty cables.

Question 18a–c.

Marks	0	1	2	3	Average
%	21	18	24	37	1.8

18a.

During summer, others at the caravan park are using Geoff's Internet via his unsecured wireless router.

Some students incorrectly assumed that Geoff had used the bandwidth himself over summer. A few students blamed the hotter weather or a non air-conditioned satellite.

18b.

Secure his wireless router by putting in a password or encryption key.

18c.

Give the problem to a more experienced technician/pass up to a superior.

Some students merely indicated a co-worker as the recipient, failing to mention experience or superiority.

Question 19a–d.

Marks	0	1	2	3	4	5	Average
%	23	29	25	15	6	2	1.6

19a.

Either of:

- permits the developer to make changes on one screen and to test results on the other
- allows research or reference materials to be on one screen while working on the other.

Answers implying only less switching between applications were insufficiently strong to gain the mark.

19b.

No, most software is not yet optimised for multi-cores, and other hardware components also have a big impact, for example, amount of RAM.

Other good answers included discussions relating to the impact of the rest of the computer's configuration on performance.

19c.

Any two of:

- four central processing units (CPUs)
- shared cache
- separate caches
- arithmetic logic unit (ALU)
- bus/pipe.

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19d.

System 1 as it has more RAM.

The stem of the question stated that Charlie's work was 'memory intensive', so system 2 could not be justified.

Many students gave 'it is cheaper' as a reason for system 1; however, there was no evidence to support this and no marks were awarded for this response.

Question 20

Marks	0	1	2	3	4	5	Average
%	8	13	20	22	20	18	2.9

Term	Letter
disk repairer	G
system restore	C
system updater	A
application updater	F
file defragmentation	H

Question 21

Marks	0	1	2	Average
%	47	33	20	0.7

Process 1: Gather existing design, user specifications, supporting documentation, user documentation standards

Process 2: Bring documentation up to the required standard, edit/update changes.

Responses to this question suggested that many students have a poor understanding of what a flowchart process is and/or the steps required to create a document.

Question 22i–iii.

Marks	0	1	2	3	Average
%	25	19	33	23	1.5

22i.

Patel Proposal: OK as restored correctly

22ii.

Jones Proposal: Incorrect version as the file from the second Tuesday restore overwrote Wednesday's file

22iii.

Nguyen: Lost/missing/cannot be opened as Thursday's backup was not restored

It was pleasing that more students than in previous years had an understanding of the backup and restore processes; however, there is still room for improvement, particularly when students responded with statements that backups were not done or were done out of sequence. Too many students used the term 'backup' where the context implied that they meant 'restore the backup.' This was not acceptable as the data movement is in the opposite direction.

Question 23a–b.

Marks	0	1	2	3	Average
%	14	31	42	13	1.5

23a.

Both of:

- RAM usage is close to maximum
- virtual RAM usage is always high (hard disk drive usage also points to high virtual RAM use).

23b.

More virtual RAM is required.

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This question was well done, but many students incorrectly assumed that ‘modify the system configuration’ included hardware changes. The computer was not described as running in 64-bit mode. Therefore, it would be impossible to install additional usable RAM as the computer already had 4 GB – the maximum for a 32-bit computer (the current common standard, and therefore assumed, computer).