2011 Assessment Report

VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY

2011 VCE VET Information Technology GA 2: Written examination

GENERAL COMMENTS

In 2011, 366 students sat the VCE VET Information Technology examination. In general, students coped well with the examination format and attempted most questions.

It was pleasing that this year fewer students merely reworded or rewrote questions without adding any new information. Those who did rewrite or reword the question could have better spent their time elaborating on the answers they did know. Some students began their answers by copying or rephrasing the question stem. This technique wastes valuable examination time and wastes the answer space.

Students need to ensure that they read the question stem carefully. Some students 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. Many students seemed to think that the solution to every poorly performing system was to add more RAM, but could not explain why. Students also need to ensure they answer the question asked. Many students offered hardware solutions to problems that required software solutions.

Students displayed above-average knowledge and understanding of everyday topics such as safety issues. However, a significant number of students were unable to apply their knowledge effectively to the scenarios presented.

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 gained full marks when they produced unexpected answers that were valid and well thought out. In questions that ask for more than one response, repeating answers or providing similar answers did not gain full marks.

The majority of students handled the questions from each unit of competence reasonably well. In general, questions based on the 'apply occupational health and safety procedures' competency were handled best, followed by the 'provide advice to clients' and the 'create user documentation' competencies. However, some students appeared to have difficulties suggesting solutions to client problems in the competencies 'run standard diagnostics' and 'install and optimise operating system software', particularly when the question required them to apply their knowledge.

SPECIFIC INFORMATION

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	Comments
1	8	19	6	67	
2	2	92	4	1	
3	16	70	10	4	
4	31	3	57	8	
5	10	7	82	1	
6	3	10	84	3	
7	18	15	34	33	Option C was incorrect because ROM is not included in virtual memory.
8	99	0	0	0	
9	3	86	2	10	
10	69	5	9	17	
11	11	41	24	23	
12	16	12	5	67	
13	1	20	9	70	
14	72	16	7	4	
15	47	23	15	14	Although Option B was a popular selection, it cannot work, as the users need their new logins to receive the email.
16	2	6	7	84	

Question	% A	% B	% C	% D	Comments
17	11	51	20	17	
18	18	14	62	7	
19	23	40	27	10	Option A is invalid as it has no paragraph spacing, no paragraph indents and is sans serif. Option B is invalid as inter-paragraph spacing and first line indentation are not needed together. Option D is invalid due to the use of sans serif. Option C provides a typical good documentation style – first paragraph after heading not indented, subsequent paragraphs with first line indentation and no inter-paragraph spacing.
20	82	2	6	10	

Section B – Short answer questions

For each question, outline answers are provided. In some cases, the answers given are not the only answers that could have been awarded marks.

Question 1

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

Any three of:

- telephone/Skype
- email/fax
- online web form
- paper form
- physical visit.

Question 2

Marks	0	1	Average
%	16	84	**0.8**

Any one of:

- the data cable is not plugged in correctly
- there is a faulty cable
- operating system/driver problems.

Question 3

Marks	0	1	2	3	4	Average
%	0	4	43	50	4	**2.5**

All of:

- total RAM
- benchmark speed
- free disk space
- resolution of the VDU.

The majority of students chose the CPU percentage usage option. This is relevant to how well the computer might run the publishing application, not whether it can.

Question 4

Marks	0	1	2	Average
%	38	41	21	**0.8**

Both of:

- replacement hard disk sourced; notify install date and cost to client
- client completes an evaluation sheet on your work and signs off on repair.

Question 5

Marks	0	1	2	Average
%	14	46	40	**1.3**

To gain full marks, students needed to explain valid evaluation methods. Some of the methods were:

- questionnaire or online survey
- one-on-one verbal survey or telephone survey
- review help desk logs
- audit network hardware or software.

Most of the explanations offered were satisfactory; however, some students offered two methods that were too similar to each other to gain the second mark.

Question 6a.

Marks	0	1	2	Average
%	47	8	46	**1.0**

Any one of:

- responsive to user's needs
- community written
- modifiable
- better security.

Providing one of the above answers gained one mark, with a further mark awarded for the explanation.

Typical explanations were:

- suggestions are acted on faster
- user involvement in modification and update processes
- can change it yourself to suit your own needs
- less popular, so fewer virus attacks.

A surprising number of students offered cost as an advantage; however, these students did not gain any marks as cost was specifically excluded in the question stem. Many other students did not attempt this part, but went on to provide good answers to part b. Most explanations were good.

Question 6b.

Marks	0	1	2	3	4	Average
%	29	3	24	9	35	**2.2**

Any one of:

- standardised
- large integrated development team
- update regime
- widely used.

Providing one of the above answers gained one mark, with a further mark awarded for the explanation.

Typical acceptable explanations included:

- lots of third-party help or training
- supports (nearly) all devices – freedom of choice in peripherals
- supports a wide range of commercial software
- includes a number of standard applications
- timely maintenance of bugs
- ease of finding trained users.

To gain the mark, the explanation needed to follow on from the advantage offered.

Question 7

Marks	0	1	2	Average
%	31	50	20	**0.9**

Any two of:

- attach the filing cabinet to the floor or walls
- distribute files evenly among the drawers
- ensure heavy items are low in the cabinet
- files not packed too tightly
- install locking devices to prevent opening more than one drawer at a time.

Many students offered solutions that were not 'maintenance procedures', such as the use of ladders or shelving. These answers did not gain any marks.

Question 8

Marks	0	1	2	3	Average
%	17	19	36	28	**1.8**

Any three of:

- data files created using the same software
- application compatibility
- virus prevention
- software compatibility/makes help desk support easier
- maximising free disk space
- protecting company data
- licensing/use of authorised software
- laptops give workers mobility.

Students who identified an issue usually explained it well. The most common mistake was students explaining how the policies would affect users, rather than the issues themselves.

Question 9

Marks	0	1	2	Average
%	3	15	81	**1.8**

Two marks were awarded for the sequence 3 – 1 – 2. One mark was awarded when one or two of the priorities were correct. This question was understood and answered well.

Question 10

Marks	0	1	Average
%	80	20	**0.2**

One mark was awarded for a good explanation of the 'Use existing standards' option – typically 'the only way to adhere to organisational standards'. Choosing the 'Save' or 'Review' options gained no marks.

Question 11a.

Marks	0	1	2	Average
%	8	10	83	**1.8**

Two marks were given for four or more correctly placed items; one mark for two or three items. Most students did a good job of designing a suitable layout, although a few placed their navigation buttons vertically instead of horizontally.

Question 11b.

Marks	0	1	2	Average
%	12	36	52	**1.4**

Both of:

- navigation is consistent so that users can find other pages easily
- users can see what the screen dumps refer to for quick scanning of user document and compare with their screen or useful if images are turned off.

Questions 12a–c.

Marks	0	1	2	3	Average
%	6	21	36	36	**2.0**

Question 12a.

One of:

- check that Clive is OK
- apply first aid, call an ambulance, and so on.

Surprisingly, many students thought writing an Occupational Health and Safety (OH&S) report was more important than checking Clive's wellbeing.

Question 12b.

Any of:

- OH&S officer or manager
- HR manager
- supervisor/line manager.

Question 12c.

Any of:

- insurance purposes
- record of incident on file for future reporting
- prevention of future accidents
- review standards for training
- possible discipline proceedings
- he was the witness.

Question 13

Marks	0	1	2	Average
%	92	4	4	**0.1**

Marks were awarded for a description of the change and its justification. For example, move swap/virtual memory file to the third drive, which is faster and unused – reduces disk load, limited RAM and many applications mean swap file usage is heavy. The swap file is on a slow, busy drive, limiting performance.

This question was answered very poorly. Despite the stem asking for 'one change he can make to the operating system setup' the vast majority of students offered hardware solutions, mostly upgrading RAM.

Question 14a.

Marks	0	1	2	Average
%	17	38	45	**1.3**

Any two of:

- time call is logged
- priority
- client location or further contact details
- job number
- status
- computer ID/serial no.

Marks were not awarded for suggestions such as 'solution', which do not improve the processing of the job.

Question 14b.

Marks	0	1	Average
%	21	79	**0.8**

The mark was given for a different, usable layout.

This question was answered well. A few students failed to gain the mark by omitting some of the original form's data or creating an unusable form.

Question 15

Marks	0	1	2	3	Average
%	1	2	22	75	**2.7**

All of:

- clarity and readability
- identification of target audience
- appropriate content, format and style.

Most students performed well in this question.

Question 16

Marks	0	1	2	Average
%	57	40	3	**0.5**

Many students failed to recognise that the policies were inadequate. One mark was awarded for answering 'update policies,' the other for either qualifying the policies with 'ventilation' or ensuring Surjeet's problem was rectified.

Question 17

Marks	0	1	2	3	Average
%	3	9	37	51	**2.4**

Any three of:

- thighs are parallel to floor, or sloping down
- the monitor is at a comfortable viewing distance
- the screen is angled to avoid glare
- there is no pressure on the underside of thighs
- uses a five-wheel/adjustable gas-lift chair
- other ideas that were observable in the diagram.

Overall, this question was answered well; however, some students offered good OH&S ideas that could not be observed in the diagram – such as lack of food or drink near the computer – which failed to gain marks.

Question 18

Marks	0	1	2	Average
%	59	32	10	**0.5**

Any two of:

- layout: screen size and page size are different
- layout: fonts and colours on paper may need to change on screen
- navigation: printed index compared to hyperlinks
- ability to print parts of documentation, such as quick reference cards
- anything else different between the two modes.

The following is an example of a high-scoring response.

> *Removing the page structure: there is no physical limit to how long an HTML page can be. So more information can be added into the same area, i.e. all information on one page, with links at the top, and 'back to top' links at the end of each section.*

Question 19

Marks	0	1	2	3	4	Average
%	1	2	9	27	61	**3.5**

Any one of the bulleted points per client was accepted for full marks.

Client	Problem	Solution
Barry	• has downloaded some photos from his digital camera, and the images do not fit on the page	• resize images before insertion • resize image in application, if possible
Ellen	• can't remember login password • password not working • account hacked	• reset login password
Mei	• is trying to print some text on a web page directly from the Internet and it will not print	• copy and paste text into a word processor before printing • make sure printer is working • do screen dump and print • text might be white so make it black
David	• accidentally deleted file(s) created yesterday	• access yesterday's backup tape and restore required files

Question 20a.

Marks	0	1	2	Average
%	27	71	3	**0.8**

Marks were awarded for identifying that software is using a lot of RAM or making the CPU work hard, and then identifying the link between the similar usages of RAM and CPU – caused by transferring between RAM and page/swap/virtual memory.

Most students identified the first part of the answer, but could not identify the second.

Question 20b.

Marks	0	1	2	Average
%	33	63	4	**0.7**

RAM needs to be added to minimise swapping.

About two-thirds of students knew what to upgrade; however, very few could explain why.

Question 21

Marks	0	1	2	3	4	Average
%	3	20	46	27	4	**2.1**

All of:

- some files cannot be compressed, becoming larger in the archive
- the file's name, date and size information are stored in the archive
- different compression schemes can be used for different types of files
- the files contain inbuilt checksums to detect corruption during transmission.

Many students were distracted by 'converting numeric fields to binary'.

Question 22a.

Marks	0	1	2	Average
%	23	45	32	**1.1**

One mark was awarded for a valid reason for each of two suggested upgrades.

Upgrade	Reason
More RAM	• less swapping • needed for large video files
7200 rpm (or faster) hard disk	• faster access to data
Quad core CPU	• good multitasking of OS • software is written to take advantage of parallel processing
Video card with more Video RAM	• 3D animation needs more video RAM
64-bit CPU	• 64-bit software takes advantage of the 64-bit CPU

Some students suggested an upgrade but did not give an explanation.

Question 22b.

Marks	0	1	Average
%	75	25	**0.3**

The acceptable answers depended on the upgrades suggested in part a. If one of the upgrades was to a 64-bit CPU, students had the option of recommending keeping the 32-bit software (may not make much difference in speed if running on a 64-bit computer) or using 64-bit software (software needs to be written well and using 64-bit OS to take advantage of 64-bit CPU).

Where a CPU upgrade had not been recommended, marks could not be awarded for recommending 64-bit software, but staying with 32-bit was an accepted answer, because the hardware required it.

Question 23a.

Marks	0	1	2	Average
%	45	39	15	**0.7**

One description of an electronic data loss, such as:

- accidental or malicious data corruption or deletion
- viruses.

One example of a physical data loss, such as:

- natural disaster
- simultaneous failure of both hard drives
- theft of hardware.

Question 23b.

Marks	0	1	2	3	Average
%	60	20	16	4	**0.7**

Frequent (or daily) full point-of-time backups (or less frequent full backups and frequent incremental or differential backups) to external media (tape or disk), which are then stored offsite.

Very few students provided the complete strategy. Marks were awarded for describing a backup strategy, using external media and for mentioning offsite storage.

Many students suggested better physical security, stronger virus protection or extra hard disks, but none of these offer any recovery options in cases of total data loss. Students seemed to have difficulty in recognising the need for backups, despite backup being mentioned in the question stem.

Question 24a–b.

Marks	0	1	2	Average
%	69	28	3	**0.3**

Question 24a.
Whole number consecutive page numbers do not allow for inserted pages.

Question 24b.
Left margin of 5 mm does not allow for binding holes

This question was not well answered. Many students suggested that headers and footers were not needed, some thought that an A5 page was too small and others thought that the margins were 'unbalanced'. Students seemed to have difficulty applying their knowledge to the practical aspects of the document described.