VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY

2007 ICA05 VCE VET Information Technology GA 2: Written examination

GENERAL COMMENTS

A total of 235 students sat the ICA05 VCE VET Information Technology examination in 2007. In general, students coped well with the new exam and attempted most questions.

Questions that required an explanation proved challenging for students, and responses often lacked sufficient detail or were not related to the situation presented in the question. Students who repeated answers in questions that asked for more than one response were not awarded full marks. Students need to be reminded to read the information given in the stem of the question and refer appropriately to this context in their answer. Most students handled the questions from each unit of competence reasonably well. In general, questions based on 'Create User Documentation' and 'Apply Occupational Health and Safety Procedures' were well answered. However, some improvement is needed in responses to the following units of competence where students were asked to suggest solutions to client problems:

- 'Provide Advice to Clients'
- 'Install and Optimise Operating System Software'.

Students should ensure that their writing is legible in the examination. If the assessor cannot decipher what has been written, it is very difficult to award marks. Students are encouraged to practise handwriting in class as part of their examination preparation.

This assessment report provides general information on students' performance in Sections A and B.

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	% No Answer	Comments
1	2	3	19	75	1	
2	26	54	5	15	1	
3	37	25	5	33	1	
4	17	5	37	41	0	
5	8	56	13	24	0	
6	17	5	72	5	0	
7	6	38	9	47	0	
8	89	7	3	0	1	
9	2	8	22	68	0	
10	22	3	68	8	0	
11	0	6	2	92	0	
12	2	21	53	23	1	
13	2	89	2	8	0	
14	94	1	2	4	0	
15	3	68	13	17	0	
16	15	8	8	70	0	
17	12	46	17	26	0	Students were expected to know that the diagnostic tool 'checkdisk' is not able to pick up corrupted system configuration files. A number of students selected 'physical disk errors', which 'checkdisk' will find with the switch /r.
18	58	5	6	31	1	
19	35	4	8	53	0	Students needed to recognise what should typically be in an incident report form, and that future recommendations are not normally included in an incident report.
20	7	26	60	7	0	

Section B – Short answer questions

For each question, an outline answer (or answers) is provided. In some cases the answer given is not the only answer that could have been awarded marks. Specific comments on student performance are provided where relevant.

Question 1

Marks	0	1	Average
%	13	87	**0.9**

Any of:

- a questionnaire/survey
- observation
- online feedback
- a follow up telephone call.

Question 2

Marks	0	1	2	Average
%	30	50	21	**0.9**

Any two of:

- delete temporary files (for example, on installation of software)
- delete trashed files (for example, recycle bin or /tmp directory)
- delete Internet browser cache file/history/cookies
- free up space on the hard drive
- report on what was done.

Some students were distracted from the key points of removing temporary and unnecessary files with answers that focused on a defrag of the disk or disk repair functions. Students should note that disk clean utilities generally will not uninstall programs.

Question 3

Marks	0	1	2	Average
%	36	25	40	**1.1**

Any two of:

- average time to solve issues
- number of complaints about the service
- documentation of calls (quality/quantity) – a logbook or database (not just 'no calls')
- number of proactive solutions or number of problems resolved in a day
- response time
- client feedback/surveys
- benchmarking.

By including the term 'measures', this question was seeking measurable qualities that could demonstrate or indicate the improvement of the help desk service, not suggestions for ways to improve a help desk in general.

Question 4

Marks	0	1	2	3	Average
%	20	38	4	39	**1.6**

Computer process	Batch	Real time	Multitasking
Processing the weekly payroll	✓		
Servicing page requests to a busy website			✓
Monitoring the building's security system		✓	

Some students did well on this question, but others appeared to either not understand the terms 'batch', 'real time' or 'multitasking'.

Question 5

Marks	0	1	2	Average
%	75	18	8	**0.4**

Both of:

- multiple sets of backup media
- overwrite oldest/keep most current.

A few students appeared not to be familiar with the term 'rotating backup' and a number of creative answers were given. The purpose of this question was to test understanding of hierarchical backups or backup systems that use multiple sets of media for backup. Students needed to demonstrate an understanding of the process (for example, having a backup tape for each day).

Question 6

Marks	0	1	2	3	4	Average
%	1	1	7	20	72	**3.6**

Possible risks and explanations included:

- coffee/drink on computer – possible electrical, fire or scalding hazard
- chair with four legs – a castor chair is unstable with fewer than five legs
- monitor/screen too far away, too small or too low – potential for neck problems or eye strain
- sitting with legs crossed – potential for circulation problems
- no lower back support – potential for back problems
- keyboard too high – should be at or below elbow height
- chair **may** not be adjustable – potential for circulation problems
- no footrest – could cause bad posture and associated back problems
- chair at wrong height – could cause bad posture and associated arm, wrist or back problems
- no wrist rest or wrist at wrong height – risk of RSI or OSI
- computer is not in a stable position due to small shelf – risk of injury due to falling equipment.

Marks were given for **acceptable items** and matching **valid reasons**. Generally students found this to be an easy question, although their reasons occasionally did not match the risks that were selected.

Question 7a.

Marks	0	1	Average
%	32	68	**0.7**

Either of:

- the text is difficult to read because the hyphenation is inappropriate and/or excessive
- the text is difficult to read because the words are split over lines.

Question 7b.

Marks	0	1	Average
%	25	75	**0.8**

Either of:

- the line is too long
- the font is too small.

This question was quite well done by most students, but some misread the question and commented about the actual content of the text. The question clearly said that 'the following text was approved for publication' so such answers were not accepted.

Question 8a.

Marks	0	1	Average
%	11	89	**0.9**

Any one of:

- to improve customer satisfaction/service
- to troubleshoot/correct errors in the system

- to make sure staff are helping customers effectively
- to identify areas for improvement.

Question 8b.

Marks	0	1	2	Average
%	3	20	78	**1.8**

Any two of:

- survey or questionnaire
- feedback form
- interview or verbal survey.

Question 8c.

Marks	0	1	Average
%	25	75	**0.8**

Any one of:

- as advertising if the results are favourable (it makes company look good)
- to motivate its staff to do better
- if the feedback is positive then it is a good testimony to their new system.

This question was generally quite well done but students needed to take care that their two answers in part b. were different.

Question 9a.

Marks	0	1	2	3	Average
%	2	12	41	45	**2.3**

Any three of:

- instructional material or user guide – for learning how to use the software and the features it has
- training material – skill development exercises that include tutorials that demonstrate examples of how the software could be applied to common tasks
- policy and procedures documents – outlines company expectations and processes to be followed
- Quick Keys and main functions card – to help the user start using the software quickly
- trouble shooting guide – a reference in case the user experiences problems
- online help – contextual on-screen assistance that is searchable via keywords
- hypertext – provides on-screen links to explanations for key terms.

Explanations of instructional material or user guide were usually well done. Training material was sometimes confused with instructional material. Policy and procedures documents were seldom chosen but usually resulted in a reasonable answer. Quick Keys and main functions card was a popular choice which usually resulted in a good answer though some were rather vague. Trouble shooting guide was quite popular and usually well done. Online help was usually explained well, but some students deviated into online chat and discussion boards, which cannot really be called 'documents'. Hypertext was rarely chosen and results for this choice were mixed.

Question 9b.

Marks	0	1	Average
%	59	41	**0.4**

To ensure that the organisation complies with the standards set by the industry involved, from both competitive and legal points of view or to retain consistency of standards.

A number of students made no effort to link this answer back to the industry standards.

Question 10a.

Marks	0	1	2	Average
%	18	55	27	**1.1**

Any two of:

- the cost of downtime required to upgrade

- the implementation method to be used
- training and user documentation provided or required
- memory/RAM and/or hard disk upgrades required
- compatibility of applications and/or hardware with new OS
- the cost of installation and ongoing maintenance
- availability of product support
- if it needs to be upgraded.

'User resistance' and 'to ensure data is safe' were not considered to be strong enough answers.

Question 10b.

Marks	0	1	2	Average
%	72	25	3	**0.3**

Any two of:

- set up a spare PC under the new OS and do backups in both formats for a full backup cycle prior to switching over
- set up a PC under the old OS, to be used for restoration of the old format to the new OS, until the new OS backups complete the cycle
- acquire a utility to convert old format backups to the new format
- buy a new backup system that will import the old files
- escalate the problem to a more experienced technician
- run the old OS on a virtual machine under the new OS.

Strategies that could not retrieve files from both old and new backups were not acceptable.

Part b. challenged students as it required them to consider more than just the future impact of the upgrade. They also needed to be aware that there is a real need to be able to access data from the old version of the backup system as well as being able to produce new backups with the new OS. Answers that did not deal in some way with access to both the old and the new backup systems were not acceptable.

Question 11

Marks	0	1	2	3	4	Average
%	1	3	17	42	37	**3.1**

System 1: Advantages

- difficult for anyone to crack
- good control, with some user choice

Disadvantages

- complex password – hard to remember and likely to be written down
- frequent changes required

System 2: Advantages

- less frequent changes
- quick and easy as the user doesn't have to think of a password – takes less time to set up
- total control of password format
- difficult for anyone to crack

Disadvantages

- no relevance to user – harder to remember
- someone could save the list before passwords are deleted and use it to hack into the system

Most students showed good analytical skills in identifying the advantages and disadvantages of these systems.

Question 12a.

Marks	0	1	2	Average
%	50	12	39	**0.9**

Option B would be the best option because:

- Linux would provide better security and the user would still have the convenience of accessing Windows
- dual booting takes time, Linux is more secure and WINE may possibly handle Win32 applications anyway.

Question 12b.

Marks	0	1	2	Average
%	37	20	43	**1.1**

Option A would be the best option because:

- the testing environment will be fully one way or the other so dual boot gives maximum performance for either environment
- the business is likely to be using Windows for its workstation installations, and this option will allow for testing and for the use of Linux for administration tasks, while keeping them completely separate.

Some students' answers indicated a lack of exposure to multiple operating systems or a lack of knowledge of uses for different systems. The best options were Linux with Windows in a virtual environment and, secondly, the dual boot arrangement.

Question 13a.

Marks	0	1	2	3	Average
%	30	21	21	28	**1.5**

The correct order of numbers was 5, 4, 6, 1, 3, 2.

Question 13b.

Marks	0	1	Average
%	55	45	**0.5**

Either of:

- so that he will be able to produce documentation for his users efficiently
- so that he will be able to produce documentation for his users consistently
- for best practice.

Simply stating 'appropriate' was not a sufficient answer.

Question 14

Marks	0	1	2	3	Average
%	1	1	21	76	**2.8**

The correct order was:

- chemical
- psychological
- mechanical
- ergonomic.

Marks were awarded on a sliding scale. As this was a matching exercise, once students achieved three correct answers, the fourth was inevitably also correct. Therefore, a maximum of three marks was available.

Question 15a.

Marks	0	1	2	Average
%	30	31	39	**1.1**

Any two of:

- CPU usage is very high
- RAM is nearly fully used/physical memory is full/memory activity is high
- the hard disk seems to be running all the time
- the computer is running very slowly (lagging)
- high hard disk activity
- the hard drive cache can't cope with activity required.

Question 15b.

Marks	0	1	Average
%	53	47	**0.5**

Any one of:

- add in more RAM
- close some applications
- upgrade CPU
- check for virus/spyware/adware/trojans.

Upgrade the hard disk or cache was not acceptable as these were fairly high end specifications for the hard drive. The solution should have related to one of the problems suggested in part a.

This question clearly indicated students' ability to connect analytical data to a root cause and then to suggest the solution. A number of students struggled with this, while many others demonstrated a good understanding.

Question 16

Marks	0	1	2	3	4	5	6	Average
%	2	4	7	20	30	28	11	**4.0**

Date	Time	Name	Problem	Solution
1/11/2007	9.05	Susan	She is trying to scan a photo using a scanner but is not sure how to do it.	• *Train her to scan.* • *Give her user documentation.*
1/11/2007	11.15	Steve	• *Steve could not log into the 'Work' domain.* • *Steve forgot his network password (not just can't log in).*	Reset Steve's network password on the domain 'Work'.
1/11/2007	12.30	Agatha	She has complained about a lot of messages popping up on her screen saying 'Abracadabra'.	*This is most likely a virus – scan her computer with an antivirus.*
1/11/2007	13.30	Trinh	She finds her computer slow. She can see and hear that her hard disk seems to be working all the time, especially when she has a few programs open at once.	• *Upgrade RAM (not 'check' RAM).* • *Close applications that are not needed.* *This was not a HDD problem so defrag was not appropriate.*
1/11/2007	14.10	Ramesh	*Could not login or access the network.*	Replaced a faulty patch cable connected to the network interface card on his computer.
1/11/2007	14.30	George	He has complained about an error on his laser printer. It is saying 'Please load A4'.	• *The printer has run out of paper – load/replace more A4 paper into tray.* • *Override the printer to use a different feed tray.*

Some students misinterpreted the question and answered as if they were the one experiencing the problems. Students needed to demonstrate that they knew what to do if they were the help desk operator who was filling in the log.

Question 17a.

Marks	0	1	Average
%	59	41	**0.4**

Any one of:

- to be aware of OHS issues in the office and take reasonable steps to prevent injury to yourself and others in the workplace
- must report hazards or accidents to the OHS manager.

The question was generally well done by most students; however, some students misread this question. They were asked to give an obligation of the employee, not the employer; therefore, the response needed to be from the employee's perspective.

Question 17b.

Marks	0	1	2	3	Average
%	17	13	30	40	**2.0**

Any three suitable ideas, such as:

- health and safety legal responsibilities
- the nature of the hazards in the workplace
- the process of hazard identification, risk assessment and risk control
- the arrangements for reporting circumstances likely to cause hazards
- the reasons for and safe use of the risk control measures in place in the workplace
- safe work practices
- list their duties/role/tasks as an employee.

Answers to this part were generally good but some students used the same idea in two or three different ways; marks were not awarded for repetition.

Question 17c.

Marks	0	1	Average
%	50	50	**0.5**

Any one of:

- records should be kept for legal requirements (for example, injury reports, insurance claims)
- records could be used for hazard identification, risk assessment and risk control
- a review of health and safety would enable an organisation to determine whether their health and safety management activities are effective
- policies, procedures and control measures require review over time to ensure that their objectives are being achieved.

Students were required to demonstrate an understanding that the records could be used in the future and then explain why they would need to be used. Simply stating 'in case there is an accident' or 'for record keeping' was not acceptable as these did not 'explain' why records should be kept.

Question 18a.

Marks	0	1	Average
%	31	69	**0.7**

Question 18b.

Marks	0	1	Average
%	40	60	**0.6**

Appropriate responses included:

- audience needs/characteristics/diversity – does it meet the needs of the intended audience?
- style/language level used – is it appropriate to the intended audience?
- clarity – is the content explained clearly?
- layout/navigation/index – is the content presented clearly and in a user friendly way?
- grammar/spelling/accuracy – are there any errors?

Question 19a.

Marks	0	1	Average
%	14	86	**0.9**

Home users who use only basic email, browsing and word processing, but little more.

Question 19b.

Marks	0	1	Average
%	34	66	**0.7**

Home or office users who would undertake a range of standard office type tasks or home entertainment tasks, **not** including heavy gaming, heavy CAD, heavy video editing or other heavy computer uses.

Students were expected to list more than one use or qualify the use; for example, 'online gaming'.

Question 20a.

Marks	0	1	Average
%	39	61	**0.6**

Either of:

- the original DVD movie has copy protection
- the TV can't play burnt DVDs (the laser isn't powerful enough).

Question 20b.

Marks	0	1	2	Average
%	59	17	25	**0.7**

Buy the original DVD movie (because this did not result in breaking copyright law).

Any answers that suggested breaking the law could not get marks.

Question 21

Marks	0	1	2	3	4	5	6	Average
%	54	11	16	9	8	1	1	**1.2**

Volume	Backup Strategy	Reason for backup strategy
1	Less frequent • systems volume needs full backup • backup needed less frequently (for example, once per month)	Does not need a sophisticated backup strategy due to **infrequent** change.
2	Frequent • daily backup • incremental backup • differential backup	• The data changes frequently. • The speed of backup is faster with fewer files for an incremental backup.
3	Not necessary • temporary volume does not need backing up	It is not necessary to protect the temporary files from loss

Marks were awarded for the correct name of a strategy or a description of the timing and for a suitable reason. This question was not well done. Students were required to demonstrate an understanding of the difference between the types of files stored on the different volumes and, consequently, the type of backup strategy each volume would need in terms of the frequency and way in which the files should be backed up.

Backup strategies did not appear to be well understood in general.