



2003 VCE VET: Information Technology GA 2: Written examination

GENERAL COMMENTS

A total of 1263 students sat for the VCE VET Information Technology examinations in 2003; Software Applications (462), General (644) and Network Administration (157).

In general, students coped well with the format of the paper and attempted most questions. Students who did not understand one scenario or misinterpreted a question were still able to score well on the rest of the paper.

Questions requiring an explanation proved more challenging to students. Responses often lacked sufficient detail or were not related to the situation given in the question. Students who gave repeated responses in a question when they had to list more than one response were not awarded full marks. Students need to be reminded to refer to information given in the stem of the question and make appropriate reference to the context in their answer. Most students handled all questions in each unit of competence reasonably. In general, questions based on policies involving macros/viruses, understanding the benefits of technology to an organisation and operating systems were the most poorly answered.

Some improvement is needed in handling the following units of competence:

- ICAITS020C install and optimise system software
- ICAJTU126B use advanced features of computer applications.

This examination report provides information on student performance in Sections A and B which were common to all three examinations. Separate information is provided on each of the three case studies in Section C.

SPECIFIC INFORMATION

Section A

This table indicates the approximate percentage of students choosing each distractor. The correct answer is the shaded alternative.

Question	A	B	C	D
1	1	0	7	92
2	11	14	75	0
3	45	3	5	47
4	15	39	2	44
5	9	13	70	8
6	6	30	63	1
7	71	19	3	7
8	32	2	65	1
9	14	46	25	16
10	12	34	43	11
11	54	34	8	4
12	56	12	19	13
13	8	18	57	17
14	15	74	4	7
15	9	4	77	10
16	68	15	6	11
17	3	41	12	44
18	53	16	9	22
19	13	7	3	77
20	2	64	5	29

Section B

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. Any specific comments on student performance are provided where relevant.

Question 1

Marks	0	1	2	Average
%	10	18	72	1.62

This question was answered well; however, students who only listed email without extending on the response did not receive a mark. The email response needed to list source.

Any two of:

- Internet – websites
- IT specialists
- Publications – books, newspapers, videos
- Trade shows
- Suppliers – local computer store
- Contacts – colleagues
- Newsgroups/chat rooms/emails – list server (email – must list source).

Question 2

Marks	0	1	Average
%	48	52	0.52

Students answered this question well. One word responses were accepted.

Any one of:

To ensure:

- quality/effectiveness
- consistency/familiarity
- efficient production – cost/time
- legal requirements.

Question 3

Marks	0	1	2	Average
%	17	30	53	1.35

Students needed to give descriptions with sufficient detail to distinguish between user documentation and technical documentation to obtain full marks.

- user documentation shows how to use (troubleshoot) information technology (IT)
- technical documentation shows how (construction/maintenance) IT works.

Question 4

a–b

Marks	0	1	2	3	4	Average
%	4	3	12	35	46	3.07

a

Any two of:

Many organisations use:

- surveys for this purpose – random survey of client database or specific relating to help desk calls, ie. calls attended to by a particular helpdesk operator
- interviews
- fill in cards
- helpdesk log
- helpdesk calls monitored
- call backs.

b

Any one of:

- use the information as an improvement tool only (not to be used as a big stick) and we should also realise that feedback can be positive – things that we do well that the organisation can learn from
- further training
- an easy lesson learnt is an opportunity to improve
- close the loop; keep management and peers informed – be an attentive listener and show that you have implemented strategies to overcome any negative feedback
- to provide counselling/poorly rating
- input into service level agreement.

Question 5

a–c

Marks	0	1	2	3	4	5	Average
%	4	12	19	28	26	11	2.95

Most students were only able to get the first mark for Question 5a. In Question 5b, some students confused the two different areas of Help Desk Support: Area 1 – problems and Area 2 – Services and suggested methods of problem resolution as a service. In Question 5c, an appropriate response related to database extraction.

a

From the initial call the incident report would be classified as Level 2. However, it has the potential to be escalated to Level 1 if more than five users are affected by the printing problem. Further investigation would be required; ask appropriate questions to the person contacting the helpdesk.

b

Any two of:

- adding new users to the network and removing users
- upgrade software
- relocation of equipment
- installing new peripherals
- maintain access control for servers and applications
- backup and restoration of file systems
- email support
- hardware support
- software support
- providing information – documentation/guides
- provide training – information.

c

By extracting a report from the helpdesk database that queries the total number of logged calls against their prioritised levels and calculates the % of calls that were not resolved within the time frame stipulated for each level of support. The helpdesk may have an inbuilt software tool that will generate this type of report as required.

- report
- making sure reach target/levels
- analyse data
- query on screen
- record
- retrieve
- monitor
- timing of logging and fixing
- determines tasks are taking too long.

Question 6

a–b

Marks	0	1	2	3	4	Average
%	29	16	12	18	25	1.19

A student obtained full marks by explaining or demonstrating why a Standard Computer Operating Environment is the same. Incorrect responses were referring to ergonomics and lighting.

a

A Standard Computer Operating Environment build standardised all systems and sub-systems across an organisation. Keeping all computers the same including:

- hardware platforms
- operating system and network operating system
- application packages
- network infrastructure
- file management systems.

b

Any two of:

- total cost of ownership goes down
- ease of support – working with the one platform
- file sharing systems across the country; everyone using the same hardware and software
- enforces workplace standards

- purchase from one supplier and negotiate a good price
- makes it easier for staff to move from one to another (staff mobility)
- reduce compatibility issues for upgrades of software and hardware
- reduce stress of staff
- easier for helpdesk to assist.

Question 7

Marks	0	1	2	Average
%	23	30	47	1.23

Some students had difficulty outlining two responses and instead gave examples of types of operating systems. Any two of:

- file management
- sharing internal memory
- output/input – management of peripherals
- output to screen
- output to printer
- interactive with user
- provides communication between hardware and software
- provide – security access rights
- centralised resources
- sharing resources
- provide interface
- multi-task
- application management
- network – auditing.

Question 8

a–b

Marks	0	1	2	3	Average
%	55	21	14	10	0.87

Many students did not know the definition of Virtual Memory. Most incorrect responses referred to virtual 3D games. In Question 8b, students got full marks for outlining two points or elaborating clearly on one response.

a

Virtual memory looks at the content of RAM that has not been used recently and copies that data to the hard disk drive. This frees up memory in RAM. The amount of secondary storage allocated to Virtual Memory is important and depends on the computer's specifications.

- extension of RAM
- provide extra temporary space from hard disk space
- cache of data (instead of hard disk).

b

Virtual memory enables multitasking operating systems with not enough RAM available for the CPU to run programs simultaneously. (*Note*: virtual memory does not increase the speed of the computer.)

Question 9

Marks	0	1	2	Average
%	25	37	38	1.13

Boot up disk (Start up disk) contains some system files that allow the computer to start without the use of a Hard Disk Drive. When a computer is turned on, it boots from a boot sector on the Hard Disk Drive which then loads the Operating System. The boot disk has a boot sector similar to the Hard Disk Drive and some of the Operating System files that allow it to boot to an operating system prompt.

Accept other key words:

- system files (or implicit)
- loads operating system or starts programs
- start installation process.

Question 10

a–b

Marks	0	1	2	Average
%	31	23	46	1.13

In Question 10a, student responses that referred to drives instead of volumes were accepted.

a

The partition process divides a Hard Disk Drive into two or more logical volumes. The operating system can be installed on one volume while files and applications – files which change more frequently can be installed on another volume.

b

Any one of:

- separates user files from system files
- system should run smoother
- maintenance
- reloading
- user friendly – facilitates easy user support
- backup user information
- file securities
- control hard disk access
- multiple Operating Systems can be stored and accessed.

Question 11

Marks	0	1	Average
%	20	80	0.80

Check with the manufacturer of the peripheral devices via the Internet for the latest driver information that would work with the operating system.

- Internet or magazine; refer to technical documentation
- phone supplier of devices and other suppliers
- expert to direct help desk operator
- check Readme file

Question 12

Marks	0	1	2	Average
%	20	30	50	1.29

This question required students to explain their solution. It was quite challenging and both ‘yes’ and ‘no’ were acceptable subject to the reasons given.

Yes, Jet Incorporated has met its legal obligation as long as no more than 15 users access the software at any one time.
OR

No, if 25 people use it concurrently, not enough info.

Question 13

a–b

Marks	0	1	2	3	4	5	Average
%	5	5	12	30	31	17	3.24

In Question 13a, responses that were examples of policies were accepted but not if they repeated a particular policy. In Question 13b, repeated responses were not accepted, the response ‘back up of data’ was not accepted.

a

Any two of:

- acceptable use policy
- security policy
- Code of Conduct
- Internet use policy.

b

Any three of:

If a virus is reported to the helpdesk you would:

- tell the user to disconnect their computer from the network immediately
- suspend all network operations
- investigate by questioning the user on what symptoms caused the user to suspect a virus and ask if antivirus software issued a warning
- inform security and network manager
- determine the virus type – the extent of the infection and the removal method
- use virus eradication tools to remove the virus and clean the PC
- try to determine the source of the virus and eradicate

- document all relevant information record on helpdesk database and notify other engineers of the infection and the solution
- avoid use of double extensions on files
- update anti-virus software.

Question 14

a–c

Marks	0	1	2	3	4	5	Average
%	8	11	14	22	22	23	3.02

Question 14b was poorly answered. Students' responses did not clarify the type of training method to be used. Most answered with the content of the training program but did not mention the type of delivery of the program. Question 14c required justification of the student's response.

a

Any one of:

- provide training
- support of staff
- keep informed and involved in changeover
- user documentation
- involvement in decision making.

b

Group training in departments – Office staff and sales staff as they have different needs for the system.

c

With justification, any one of:

- ensure implementation is done out of hours – type of changeover
- user documentation – quick reference guide
- help desk facilities
- roving helper – help desk
- process flowcharts
- feedback.

Question 15

Marks	0	1	2	Average
%	62	16	22	0.60

A sub process question.

Process 1

Any one of:

- documentation is reviewed by target audience
- signoff at department level
- documentation created
- evaluation.

Process 2

Any one of:

- changes are made according to target audience feedback
- modified according to target audience feedback.

Question 16

Marks	0	1	Average
%	51	49	0.49

A syntax error is where a rule of a programming language has been broken. 'Incorrect code' or 'programming language' was also acceptable.

Question 17

a–b

Marks	0	1	2	3	Average
%	58	26	13	3	0.61

A poorly answered question. Most students answered incorrectly with 'easy to copy' for Question 17a and 'English' for Question 17b. Students obtained only 1 mark in Question 17a if they responded with 'looks the same when copied' or 'to be imported easier'.

a

It must be in a table format so each application will recognise the columns as fields and the rows as records.

b

HTML code.

Section C – Case study: Software applications

Question 1

Marks	0	1	Average
%	61	39	0.39

Automated Mail Merge.

Question 2

Marks	0	1	2	Average
%	41	14	45	1.04

Students had difficulty answering this question in line with the context of the case study.

One-to-one training

Any one of:

- staff overloaded – backlog
- affordable
- non work day
- staff overtime/because large finances
- staff all have different jobs/tasks.

Question 3

a–b

Marks	0	1	2	Average
%	13	30	57	1.44

a

Any one of business needs change:

- new policies/business names/new images
- software updates/versions.

b

Any one of:

- documentation
- training
- add button to toolbar with explanation
- communication – email
- notify through the use of macro and template.

Question 4

Marks	0	1	2	Average
%	17	30	53	1.35

This question was quite flexible and allowed for a variety of answers.

Any two of:

- copy template
- flyer template
- logo template
- logo and details macro
- table macro/print macro
- macro for mail merge.

Question 5

a–c

Marks	0	1	2	3	4	Average
%	10	14	25	30	21	2.37

Many students misread Question 5b and responded to why a template would be useful, not to why a template would be useful in developing budgets.

a

Spreadsheet/database packages

b

Since the budgets and the costings are standard, then a template would be useful. A different template for each area would be required.

Keywords:

- standard and more than one
- calculations (formulas used)
- protect/lock cells
- printing specifications.

c

Scanner or re-keying.

Question 6

a–c

Marks	0	1	2	3	4	Average
%	15	46	24	12	3	1.44

This question was quite challenging and students found it difficult to respond.

a

Birthday, Anniversary

b

Any one of:

- adding
- identifying
- checking
- a new facility to each of corporate and wedding.

c

Any one of:

- list
- display
- output
- print
- plus new facility.

Question 7

a–c

Marks	0	1	2	3	4	5	Average
%	16	14	16	12	20	22	2.72

A lot of flexibility was allowed for responses in Question 7b.

a

No. 4

b

Subdirectory 1:

- templates
- advertising
- corporate information
- flyers (standard documents).

Subdirectory 2 or 3 can be either:

Subdirectory 2:

- flyers
- magazines
- corporate.

Subdirectory 3:

- copy
- documents
- publications/newspapers
- public.

c

C:\Administration\Bookings\Public

Section C – Case study: General

Question 1

Marks	0	1	Average
%	57	43	0.43

A weekly brochure template – desktop publishing.

Question 2

Marks	0	1	2	Average
%	8	28	64	1.56

Most students were able to answer with one security measure but found it difficult to give two responses.

Any two of:

- user password protection
- ensure virus protection software is operational and up to date
- monitoring/audit user logons periodically/surveillance
- firewalls
- file access permission
- secure sockets layer (SSL)
- physical barriers.

Question 3

a–b

Marks	0	1	2	Average
%	26	30	44	1.18

a

Web-based online help.

b

Any one of:

- help desk or printed documentation
- FAQ
- phone in
- on line tutorials
- on line technical support
- email.

Question 4

Marks	0	1	2	Average
%	26	36	38	1.12

Full marks were obtained if a student responded with an explained example.

- Minimise disruption if a disaster occurs.
- A Disaster Recovery Plan suggests ways to help minimise risk of disasters and contains information on how to complete the recovery process at Food 4 Thought.
- It is an outline of steps that are consideration of risks not only to the organisation but also damage to information technology infrastructure.

Question 5

a–b

Marks	0	1	2	3	4	Average
%	32	20	31	9	8	1.42

A variety of answers were allowed for Question 5a. Students answered poorly in Question 5b; most said that it was global because people can shop around the world on the Internet.

a

Any two of:

- macro for printing
- macro for processing delivery dockets
- macro for updating weekly price of sale item
- macro for checking orders before dispatched
- calculate new stock levels after purchase entered (monitoring)

- generate order list for dispatch
- organising urgency of client orders.

b

Local macro because it is specific for the customer ordering template on the website; no need to access this by other document files.

Question 6

a–b

Marks	0	1	2	3	4	Average
%	14	15	32	30	9	2.06

a

Using a template for feedback could help merge similar complaints/feedbacks together. It would assist in ordering information in a consistent format.

b

The client registration form needed to include:

- member's details – name, home address, email address, time and day of delivery, credit card details
- company details – logo/header
- submit button for registration.

Question 7

a–c

Marks	0	1	2	3	4	5	Average
%	16	11	15	26	22	10	2.59

Most students did not understand how a macro virus spreads through an email in Question 7a. Many students found it difficult to list three procedures for detection of a macro virus without repeating responses.

a

Receive a macro virus attached to an attachment on the email. Open the attachment to infect/spread virus.

b

Possible Damage

- network data destroyed
- slowing system performance on the network.

c

Any three of:

- deactivate and remove virus using virus removal policy
- recover loss/damaged data
- prevent a recurrence by alerting workmates
- document occurrence of virus
- informing staff of updates
- alert of incoming macro virus
- not to turn off virus protection attachments
- do not open attachments from people you do not know
- disable.

Section C – Case study: Network administration

Question 1

Marks	0	1	Average
%	51	49	0.49

This is a BUS topology

Question 2

Marks	0	1	2	Average
%	29	42	29	1.00

Poorly answered. Many students did not understand topologies and therefore could not list advantages.

Any two of:

- when one node fails all others are still operational
- reduced network collisions due to network micro segmentation
- faster throughput with CAT-5 UTP cable
- LANs in Sydney and Melbourne can communicate with each other.

Question 3

Marks	0	1	2	Average
%	49	44	7	0.58

Students needed to realise that a WAN had been developed to obtain full marks. The question focused on types of topologies.

Answer:

WAN Wide Area Network because of the geographic location of each office (Sydney and Melbourne). Client Server WAN, Star network with a WAN or extended star were also acceptable answers.

Question 4

a–b

Marks	0	1	2	Average
%	27	47	26	0.98

a

Any one of:

- stores
- accounts
- sales.

b

Make the Managing Director a member of each group by:

- Manager receives full access rights by the system administrator
- allow access to the folders in the file sharing properties of 4 directories.

Question 5

a–b

Marks	0	1	2	3	4	Average
%	19	14	24	20	23	2.13

Some students still need to understand access rights and security on a network.

a

Read, Write, Execute and Delete. The permissions remain the same because they were originally applied at the Administration directory level and are inherited by the lower level sub directories.

b

Permissions would have to be reassigned at the sub-directory 'Templates'. The permission required here is 'Read' Or 'Execute'.

Question 6

a–c

Marks	0	1	2	3	4	Average
%	8	7	18	28	39	2.82

a

Redundant Array of Independent Disks – RAID ensures reliability of Hard Disk Drives. Provides internal backup for hard disk failure.

b

You would still need to backup data – so that you can restore data prior to Hard Disk Drive failure. A copy of the backup data should be kept off site.

If using RAID, it does not guarantee 100% backup; does not cover for disasters; in case of human error by deletion.

c

Any two of:

- disconnected network cable
- bad network cable or connector
- faulty network card (hardware) and settings
- faulty port on switch
- NIC driver missing
- hardware resource conflict
- protocol problems
- network driver inappropriate
- not logged on correctly
- users cancelled out of logon scripts

- improperly written firewall
- host files
- user not known to system.

Question 7

a–c

Marks	0	1	2	3	4	5	Average
%	23	12	16	26	17	6	2.21

A poorly answered question. Most students did not understand what an audit was and were unable to list why they were necessary as well as types of audits possible for a network.

a

Checking to meet organisational standards or checking network performance.

b

Baseline refers to the normal status of a network at its optimal level and is therefore used as a benchmark for future measurement of network performance.

c

Any three of:

- security audit
- operational audit
- facility audit
- inventory audit
- efficiency audit
- registered software
- software audit
- hardware audit.

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