2001 HSC Notes from the Examination Centre Information Technology

Contents

2001 HSC NOTES FROM THE EXAMINATION CENTRE INFORMATION TECHNOLOGY

Introduction

This document has been produced for the teachers and candidates of the Stage 6 course in Information Technology. It provides comments with regard to responses to the 2001 Higher School Certificate Examination, indicating the quality of candidate responses, and highlighting the relative strengths and weaknesses of the candidature in each section and each question.

It is essential for this document to be read in conjunction with the relevant syllabus, the 2001 Higher School Certificate Examination, the Marking Guidelines, and other support documents, which have been developed by the Board of Studies to assist in the teaching and learning of Information Technology.

In 2001 a total of 2771 candidates sat for the examination in Information Technology.

Section I

Part A – Multiple choice

Questions	Correct Response		Questions	Correct Response
1	B		9	D
2	D		10	B
3	A		11	A
4	C		12	C
5	A		13	D
6	C		14	B
7	D		15	B
8	A			

Section II

Question 16

(a)   In general, this part of Question 16 was poorly answered by candidates.

    (i)   Candidates showed little understanding of a style guide.

    (ii)   Most candidates demonstrated a good knowledge of where templates were used.

    (ii)   The concept of a 'macro' was very poorly defined.

(b)   Candidates answered this part of the question very well. Candidates demonstrated an awareness of formatting principles in word processing and were able to list four formatting changes.

Some candidates did not demonstrate a good understanding of the concept of a 'footer'.

Question 17

(a)   Overall, this question was well answered, with most candidates clearly identifying four concerns. Some candidates gave irrelevant answers that did not relate to the diagram but are general OH&S concerns in a work environment, eg rest breaks, health issues.

(b)   In general, the question was well answered with candidates building on the answers in part (a).

(c)   The majority of candidates was able to indicate two appropriate modifications to the workstation and its environment.

Some candidates incorrectly suggested a change to the chair height. However, according to the diagram given, the seat height for that operator is correct.

Question 18

Most answers showed a good general knowledge of databases.

(a)   This question was a relatively easy one for most candidates. Responses indicated a good understanding of basic database querying. Answers included:

one or **(1)** or **Ms Judy Lee**

(b)   There was a general lack of good responses for this question as a significant number of candidates failed to recognise that the question stated 'If all postcodes consist of four digits' and incorrectly answered that in some countries postcodes contain letters.

Truncating of leading zeros when using 'Numeric' as a data type would have precluded the Northern Territory and some candidates were aware of this.

(c)   This again was relatively well answered with common responses including:

Lake or **Fred Lake** or **Mr Fred Lake**

(d)   Many candidates only provided one advantage eg 'So the contacts can be sorted by those different fields'.

Better responses provided more than one advantage.

(e)   This question drew a range of responses. Candidates demonstrating a sound understanding of SQL were able to gain full marks, correctly writing the expected output sorted by Last Name and also Bianca and Judy Lee sorted by First Name.

Fred	Lake	lake.fred@supersys.com.au
Bianca	Lee	b.lee@cruz.com.au
Judy	Lee	j.lee@eop.com.au
Tranh	Nguyen	t.nguyen@cruz.com.au

Candidates with little database knowledge were able to arrive at part of the required output, eg

Fred Lake   Bianca Lee   Judy Lee   Tranh Nguyen
(correctly sorted and all from NSW)

A number of candidates either did not attempt the question or simply repeated the question.

Question 19

Candidates demonstrated that they were not aware of what the key words 'explain', 'identify', and 'evaluate' required in the answer. Some candidates could answer all parts of the question but missed key words on the number of responses required.

(a)   Candidates failed to recognise 'explain' involved 'cause and effect'. A high percentage gave a 'cause' answer but very few extended their answer to include an effect. A number of candidates failed to understand that a 'software' answer was required. Many candidates stated application software as a problem, not printer software.

      A typical answer for 'cause' only was:
      'The printer's driver may not be functioning correctly or is not installed properly'.

      Better answers such as the following, included both 'cause' and 'effect':
      'There is a problem with the printer driver. This means that the computer does not recognise the printer, and therefore cannot print.'
      Or:
      'The receptionist is unable to print because the device drive for the printer could be having trouble communicating with the printer and the computer.'

(b)   Many candidates did not recognise that this question was about an initial call. They failed to identify the three essential categories of information that were required. Many only listed three items eg name, date, time. Answers such as 'who, where, and what' were too vague.
- Most candidates identified PROBLEM as an essential category.
- Most candidates identified PERSONS NAME but many failed to include CONTACT DETAILS or LOCATION.
- Identifying HARDWARE (COMPUTER/PRINTER) and SOFTWARE categories was not satisfactorily answered.

(c)   Candidates generally answered this part well; however, many candidates provided responses that described the same or very similar benefit in different ways. Some responses focused on the benefits of having a help desk rather than logging calls.

(d)   Candidates needed to make a judgement about the effectiveness of questioning and listening techniques. They needed to understand what was involved in questioning and listening, explain the appropriate techniques and finally make a judgement. Many candidates appeared

not to comprehend the word 'evaluate', and many repeated the question. Most candidates provided a general answer, recognising the importance of questioning and listening.

Section III

Question 20

A good response to the question covered the three units of competency in a holistic manner. It covered the following aspects:
- A memorandum format. (In addition to including fields such as memo sender, receiver, date and subject, tone and structure were important. A well-reasoned, succinct and cohesive response appropriate to audience was expected. An introduction, body and conclusion assisted this.)
- Use of technical terminology and appropriate tone.
  Identification and explanation of a range of strategies to minimise both virus infection and transmission. (Strategies identified as minimising virus infection included installation of anti-virus software on C drive, auto-protection, updating anti-virus software regularly, scanning disks (hard drive, Zip, floppy, CD), scanning files and attachments downloaded from the Internet, the removal of virus and repair of files, putting files on quarantine and contacting the IT department, formatting floppy disks before use, write-protecting original disks, booting from the hard drive instead of the floppy drive, turning on the anti-virus for CMOS setting. Strategies identified as minimising virus transmission included refraining from using disks from home or pirated software, avoiding trading disks or using disks from unknown sources, and making regularly scheduled backups.)

Strengths:
- Most candidates were able to identify some good strategies for minimising virus infection and/or transmission.
- Candidates were able to give a statement of the situation in the introduction.
- Many candidates failed to 'explain' the strategies identified.

Areas for improvement:
- Some candidates wrote lengthy introductions instead of focusing on the strategies for minimising virus infection and transmission.
- A number of candidates confused 'scan disk' with scanning for a virus.
- Many responses were not in a memorandum format.
- A balance between the explanation and memorandum style was sometimes overlooked, with memoranda often incorrectly taking the form of an essay.
- Some candidates needed to be more specific with their use of industry terminology.

Question 21

This question required candidates to present a technical procedure in a user guide format. The question required a good balance between organisational document standards, and an understanding of the technical processes involved in installing a hardware device, installing software and testing. Responses differed due to the various platforms and versions of operating systems (USB support, Apple/IBM) but candidates were not disadvantaged by this.

Poorer responses often failed to set out their answer in the format of a user guide. They did not always use the correct terminology required for the installation of software and location of USB ports, eg downloading software from the floppy disks, turn on computer instead of reboot. Some candidates mistakenly thought they needed to create instructions on how to use/write a user guide.

It was evident that some candidates had practical experience in carrying out the required or similar procedures. They were able to provide great detail in the specific steps. Most candidates had some understanding of user guide layout and could identify some of the basic overall procedures.

As well as the basic installation techniques, the better candidates made mention of: checking against the packing list, included help desk contact details, USB 'hot swapping' of hardware, office procedures eg updating equipment registers and OH&S precautions. Most candidates used a language style found in user guides, ie clear and not overly technical. Diagrams, when used, were clear, however an editor's note in a frame would have been sufficient.

Some specific points to note include:
• Most candidates had a clear understanding of the process and many described it using correct terminology.
• Most responses were either presented in a numbered point format, or divided into bulleted sections with sub-headings, suitable for a user guide.
• Many candidates failed to include a reboot in their sequence of instructions and external power for the backup device.
• Installing the software was often poorly explained eg inserting the floppy disk rather than install software by executing a set-up/install file.
• The Archiving Utility was often incorrectly considered as simply a testing device.

Question 22

Overall, candidates who answered this question showed knowledge and competency in at least one of the areas of audit requirements, file attributes, incremental backup, and file/folder passwords.

However, most candidates were unable to comprehensively discuss all of the issues outlined in the question. Further, many responses were in the form of memoranda or letters, rather then the required report format.

Most candidates did not include an adequate sketch of a directory/folder structure in their answers. There was also a very limited understanding of audit requirements and file attributes. Many candidates wrote only about file properties when referring to file attributes. Most candidates were able to explain and justify incremental backup.

Information Technology

2001 HSC Examination Mapping Grid

Question	Marks	Unit(s) of Competency	
Section I			
1	1	ICAITU006B	Operate computing packages
2	1	ICAITU006B	Operate computing packages
3	1	ICAITU006B	Operate computing packages
4	1	ICAITU006B	Operate computing packages
5	1	ICAITU005B	Operate computer hardware
6	1	ICAITU005B	Operate computer hardware
7	1	ICAITTW001B	Work effectively in an Information Technology environment
8	1	ICAITTW001B	Work effectively in an Information Technology environment
9	1	ICAITU004B	Apply Occupational Health and Safety procedures
10	1	ICAITU013B	Integrate commercial computing packages
11	1	ICAITU013B	Integrate commercial computing packages
12	1	ICAITTW002B	Communicate in the workplace
13	1	ICAITTW002B	Communicate in the workplace
14	1	ICAITS014B	Connect hardware peripherals
15	1	ICAITS017B	Maintain system integrity
Section II			
16(a)	3	ICAITU006B	Operate computing packages
		ICAITU012B	Design organisational documents using commercial computing packages
16(b)	4	ICAITU006B	Operate computing packages
		ICAITU012B	Design organisational documents using commercial computing packages
17(a)	4	ICAITU004B	Apply Occupational Health and Safety procedures
17(b)	1	ICAITU004B	Apply Occupational Health and Safety procedures
17(c)	2	ICAITU004B	Apply Occupational Health and Safety procedures
18(a)	1	ICAITU006B	Operate computing packages
18(b)	1	ICAITU006B	Operate computing packages
18(c)	1	ICAITU006B	Operate computing packages
18(d)	2	ICAITU006B	Operate computing packages
18(e)	5	ICAITU006B	Operate computing packages
19(a)	2	ICAITU005B	Operate computer hardware
		ICAITS014B	Connect hardware peripherals
19(b)	3	ICAITTW002B	Communicate in the workplace
19(c)	2	ICAITTW002B	Communicate in the workplace
19(d)	4	ICAITTW002B	Communicate in the workplace

Question	Marks	Unit(s) of Competency	
Section III			
20	15	ICAITW001B	Work effectively in an Information Technology environment
		ICAITTW002B	Communicate in the workplace
		ICAITS017B	Maintain system integrity
21	15	ICAITW001B	Work effectively in an Information Technology environment
		ICAITTW002B	Communicate in the workplace
		ICAITS017B	Maintain system integrity
22	15	ICAITW001B	Work effectively in an Information Technology environment
		ICAITTW002B	Communicate in the workplace
		ICAITU005B	Operate computer hardware

**2001 HSC Information Technology
Marking Guidelines**

Question 16 (a) (3 marks)

Units of competency assessed: ICAITU006B, ICAITU012B
MARKING GUIDELINES

Criteria	Marks
• Style guide is an organisational standard, specifying format and layout design required of a document.	1
• Template is a computer file or document used to create another file or document with preset formatting and layout.	1
• Macro: recorded set of key strokes which are stored as unique key(s) to automate repetitive processes OR • Macro: a set of program statements which are stored as a program to automate repetitive processes	1

Question 16 (b) (4 marks)

Units of competency assessed: ICAITU006B, ICAITU012B
MARKING GUIDELINES

Criteria	Marks
• Lists 4 appropriate formatting changes	4
• Lists 3 appropriate formatting changes	3
• Lists 2 appropriate formatting changes	2
• Lists 1 appropriate formatting change	1

Question 17 (a) (4 marks)

Units of competency assessed: ICAITU004B

MARKING GUIDELINES

Criteria	Marks
• Identifies 4 valid ergonomic problems or OHS concerns	4
• Identifies 3 valid ergonomic problems or OHS concerns	3
• Identifies 2 valid ergonomic problems or OHS concerns	2
• Identifies 1 valid ergonomic problem or OHS concern	1

Question 17 (b) (1 mark)

Units of competency assessed: ICAITU004B

MARKING GUIDELINES

Criteria	Marks
• Appropriately relates ONE problem or concern in part (a) to its possible health effects	1

Question 17 (c) (2 marks)

Units of competency assessed: ICAITU004B

MARKING GUIDELINES

Criteria	Marks
• Indicates the main features of 2 appropriate modifications	2
• Indicates the main features of 1 appropriate modification	1

Question 18 (a) (1 mark)

Units of competency assessed: ICAITU006B

MARKING GUIDELINES

Criteria	Marks
• One (1) (2001)	1

Question 18 (b) (1 mark)

Units of competency assessed: ICAITU006B

MARKING GUIDELINES

Criteria	Marks
• Numeric fields need only be used where calculations are required	1

Question 18 (c) (1 mark)

Units of competency assessed: ICAITU006B

MARKING GUIDELINES

Criteria	Marks
• Lake OR • Fred Lake OR • Mr Fred Lake	1

Question 18 (d) (2 marks)

Units of competency assessed: ICAITU006B

MARKING GUIDELINES

Criteria	Marks
• Gives more than one valid advantage of splitting address into four fields	2
• Gives general answer (e.g. referring to sorting or mail merging)	1

Question 18 (e) (5 marks)

Units of competency assessed: ICAITU006B

MARKING GUIDELINES

Criteria	Marks

• Writes the correct output containing 5 key features:
  − Selecting NSW persons (4) only
  − Correct order by last name
  − Correct order by first name
  − Correct sequence for output
  − Field output is first name, last name and email only
	5

• Writes the output with 4 of 5 key features	4
• Writes the output with 3 of 5 key features	3
• Writes the output with 2 of 5 key features	2
• Writes the output with 1 of 5 key features	1

Question 19 (a) (2 marks)

Units of competency assessed: ICAITU005B, ICAITS014B

MARKING GUIDELINES

Criteria	Marks
• Relates one appropriate software problem to the inability to print	2
• Lists a printing software component (e.g. incorrect printer driver)	1

Question 19 (b) (3 marks)

Units of competency assessed: ICAITTW002B

MARKING GUIDELINES

Criteria	Marks
• Identifies 3 essential categories	3
• Identifies 2 essential categories	2
• Identifies 1 essential category	1

Question 19 (c) (2 marks)

Units of competency assessed: ICAITTW002B

MARKING GUIDELINES

Criteria	Marks
• Gives 2 or more appropriate benefits to the company, showing relationship to logged information	2
• Gives only 1 appropriate benefit OR • General answer not showing any relationship to logged information	1

Question 19 (d) (4 marks)

Units of competency assessed: ICAITTW002B

MARKING GUIDELINES

Criteria	Marks
• Discusses open and closed questions and the benefits and disadvantages of each. • Discusses the benefits of active listening • Makes a judgement on the effectiveness of the above techniques, based on given reasons and discussion	4
• Discusses some questioning/listening techniques • Makes a judgement of effectiveness without clearly articulating supporting reasons	3
• Describes one or more listening or questioning techniques, without evaluating its/their effectiveness	2
• Lists a questioning or listening technique (e.g. active listening)	1

Question 20 (15 marks)

Units of competency assessed: ICAITW001B, ICAITTW002B, ICAITS017B

MARKING GUIDELINES

Criteria	Marks
• Includes all format for a memorandum i.e. memo sender, memo recipient, date and subject • Identifies and explains a range of appropriate strategies to minimise virus infection and transmission • Consistently uses technical terminology and appropriate tone • Communicates in a well-reasoned and cohesive response in a manner appropriate to audience	13 – 15
• Includes all format for a memorandum • Identifies several appropriate strategies to minimise virus infection and transmission • Communicates ideas clearly using industry terminology that is appropriate to the audience	10 – 12
• Includes most format for a memorandum • Identifies a range of standard techniques/strategies • Sequences ideas and uses some appropriate industry terminology	7 – 9
• Some elements of memorandum format present • Identifies several standard techniques/strategies • Ideas are presented without clear development	4 – 6
• Limited or no use of appropriate technical terminology or format • Identifies one-three standard techniques/strategies	1 – 3

Question 21 (15 marks)

Units of competency assessed: ICAITW001B, ICAITTW002B, ICAITS017B

MARKING GUIDELINES

Criteria	Marks
• Includes appropriately structured layout for a user guide e.g. sequenced, clear steps • Identifies a range of advanced installation and test techniques • Consistently uses technical terminology and tone appropriate to a professional IT environment • Communicates in a well-reasoned and cohesive response	13 – 15
• Includes adequately structured layout for a user guide e.g. sequenced steps • Identifies a mix of standard and advanced installation and test techniques • Communicates ideas clearly using terminology appropriate to a professional IT environment	10 – 12
• Includes most layout necessary for a user guide e.g. steps in order • Identifies a range of standard techniques for installation and testing • Sequences ideas and uses some appropriate industry terminology	7 – 9
• Some elements of layout for a user guide present • Identifies several standard techniques for installation and testing • Ideas are presented without clear development	4 – 6
• Limited or no use of appropriate user guide layout • Identifies one-three standard techniques	1 – 3

Question 22 (15 marks)

Units of competency assessed: ICAITW001B, ICAITTW002B, ICAITU005B
MARKING GUIDELINES

Criteria	Marks
• Includes all appropriate format for a report • Identifies a range of advanced file-management procedures • Explains and supports procedures in relation to audit requirements, file attributes, incremental backup and folder passwords • Communicates in a well-reasoned and cohesive response using technical terminology appropriate to a professional IT environment	13 – 15
• Includes adequate format for a report • Identifies a mix of advanced and standard file-management techniques • Gives some reasons for procedures in relation to most of audit requirements, file attributes, incremental backup and folder passwords • Communicates ideas clearly using terminology appropriate to a professional IT environment	10 – 12
• Includes most format required for a report • Identifies a range of standard file-management techniques • Describes some reasons in relation to audit requirements etc. • Sequences, ideas and uses some appropriate terminology	7 – 9
• Some elements of report format present • Identifies several standard file-management techniques • Ideas are presented without clear development	4 – 6
• Limited or no use of appropriate report format or technical terminology • Identifies one-three standard file-management techniques	1 – 3