

**2006 HSC Notes from
the Marking Centre
Information Technology**

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2006 HSC NOTES FROM THE MARKING CENTRE

INFORMATION TECHNOLOGY

Introduction

This document has been produced for the teachers and candidates of the Stage 6 course in Information Technology. It comments on candidate responses to the 2006 Higher School Certificate Examination, indicates the quality of candidate responses and highlights the relative strengths and weaknesses of the responses for each question in each section.

It is essential for this document to be read in conjunction with the relevant syllabus, the 2006 Higher School Certificate Examination, the Marking Guidelines and support documents which have been developed by the Board of Studies to assist in the teaching and learning of Information Technology.

General Comments

In 2006, 2246 candidates attempted the Information Technology examination.

Teachers and candidates should be aware that examiners may ask questions that address the syllabus outcomes in a manner that requires candidates to respond by integrating their knowledge, understanding and skills developed through studying the course. This reflects the fact that the knowledge, understanding and skills developed through the study of discrete sections or units of competency should accumulate to a more comprehensive understanding than may be described in each section separately.

Section I

Multiple choice

| Question | Correct Response |
|----------|------------------|
| 1 | C |
| 2 | A |
| 3 | D |
| 4 | B |
| 5 | B |
| 6 | A |
| 7 | B |
| 8 | C |

| Question | Correct Response |
|----------|------------------|
| 9 | C |
| 10 | B |
| 11 | D |
| 12 | D |
| 13 | C |
| 14 | A |
| 15 | C |

Section II

Question 16

Task 3 (Backup copy made of client workstation) and Task 7 (Appointment made for installation on client workstation to minimise disruption to client and to organisation) were the two tasks most frequently put in the incorrect order.

In questions of this type, candidates would benefit from looking at the tasks given before and after the missing tasks to help to determine the correct sequence or placement for the missing task.

Question 17

- (a)(i) Most candidates stated the correct number of fields. A small proportion of responses did not demonstrate an understanding of “fields” and merely multiplied the number of columns by the number of rows.
- (ii) Most candidates stated the correct number of records. A small proportion of responses did not demonstrate an understanding of “records” and merely multiplied the number of columns by the number of rows.
- (b) Better responses demonstrated an understanding of SQL. Many candidates showed confusion in their understanding of SQL by either listing additional fields to those requested by the SELECT statement or by not listing all the fields required by the SELECT statement. A common error was to misunderstand the “ORDER BY” statement and as a result the correct answer was listed in the reverse order to that required by the question.

Many candidates included the key words of the SQL down the side of their answer as part of their answer which did not reflect an understanding of a database SQL report format.

Poorer responses demonstrated a misunderstanding of the “<” and “>” operators and listed the results for “Date_Due > = 27/9/2006”.

Some confused the specific meaning of an SQL report with the general meaning of “report” (as found in extended response questions). These candidates then reiterated the SQL statements in sentences rather than stating the result generated by running the SQL statements.

Question 18

- (a)(i) Most candidates were able to identify the people required to sign.
- (ii) Most candidates answered this question correctly.

- (b) Better responses recognised that the best supplier was Intelligent Integrated Products Pty Ltd (IIP).

Better responses mentioned:

- the compatibility of the toner to the printer
- reduced costs when considering free postage and handling
- quality and reliability of purchasing genuine parts from the same company that manufactures the printer
- the cleaning kit came as a bonus which could be used to maintain the printer and improve the quality of the print jobs.

Weaker responses did not realise that Crystal Clear Integrated Products did not sell a compatible product.

- (c) Most candidates identified a range of advantages for purchasing five toner cartridges at a time. However, better responses outlined these in more detail.

Better responses included:

- the policy saved the company time as they would not have to order as frequently
- money could be saved on postage and handling
- companies may offer discounts for buying in bulk
- downtime is minimised as cartridges are already in stock
- efficient workflow is maintained as employees don't have to wait for orders to arrive

- (d) Most candidates completed the form as required. All sections needed to be filled out completely. Common errors included incorrect details, such as:

- naming "Kim" as the person placing the order
- writing "yes" instead of the accepted quote
- not putting "5" in the "quantity" column
- incorrectly transcribing the "Part No"

Question 19

- (a) Most responses gave characteristics of internal telephone and email communications. Some students did not read the word 'internal' and hence failed to effectively answer the question. Some students gave characteristics of two methods of communication, but failed to compare.
- (b) Most responses described characteristics of the telephone and fax in relation to the scenario. Many candidates described characteristics of telephone and/or fax rather than assessing their suitability to the task of informing a job applicant that they were successful.

Section III – Options

Candidates are required to attempt two out of three questions in this section.`

General Comments

Teachers and students need to re-visit the Standards Packages, Glossary and past papers constantly in order to improve the standard of extended response.

Strategies could include:

- practicing individual questions in groups allowing students to see answers and ideas they may not have otherwise seen
- providing dot point answers to questions, with students composing their own answers including analysis of each component
- peer marking using past marking guidelines to demonstrate the importance of legible, logical and well reasoned, responses.

Candidates need to focus on the following specific areas to improve responses to this type of question:

- produce responses according to the format expected in the question
- plan their response
- use the key elements of the question as an opportunity to show the depth of their knowledge
- address all elements of the question, not just focus on one aspect in their answer.
- relate their response to the given scenario
- remember guidelines for the use of terminology.

Question 20

This question was attempted by approximately 85% of candidates.

Responses that scored in the higher mark range:

- addressed all components of the question – three input devices, three output devices and OHS issues relating to setting up the workstation in preparing the master CD
- provided explicit reference to the scenario by evaluating how the device chosen would aid in the production of the master CD
- provided a broad range of OHS issues that related to the setting up of the workstation and elaborated on how to achieve these
- consistently used industry terminology to convey a detailed understanding
- used the setting out required for a report, including introduction, contents, headings and recommendations/conclusion
- provided a cohesive, well-structured response, relating all information to the given scenario.

Mid range responses:

- addressed most components of the question – input devices and output devices and some OHS issues relating to setting up the workstation in preparing the master CD
- provided some reference to the scenario by describing how the device chosen would aid in the production of the master CD
- used some industry terminology to convey a basic understanding of devices and their function
- used some elements of a report
- provided superficial information which may or may not be related to the given scenario.

Low range responses:

- addressed some elements of the question – device(s) which may not have been classified correctly according to their function or no indication of how they would be used in the creation of the master CD
- sometimes related their device(s) to the scenario
- discussed upgrading the current system, even though this was not part of the question
- discussed generic, limited or unrelated OHS issues such as work routine which did not show a broad understanding of setting up a workstation
- made little or no attempt to structure their answer in the form of a report.

Question 21

This question was answered by 50% of candidates with most showing an elementary understanding, with few being able to effectively analyse the issue to show a detailed or in-depth understanding.

Many candidates

- identified the importance of the maintenance requirements yet did not understand how this caused the problems with the printer
- were able to propose solutions but did not distinguish between long and short term
- did not use report format
- rewrote the recommended maintenance schedule and/or the selected entries from the maintenance log.

Better responses were in report format including some or all elements such as - title page, date, author, table of contents, headings and sub headings and introduction. They demonstrated some evidence of analysis by drawing out and relating implications of the maintenance carried out on the printer.

Examples of analysis / implications could include:

- cleaning was not carried out as per the recommended maintenance schedule even though the scheduled maintenance occurred
- replacement of fuser unit and paper feed was not done as per recommended maintenance schedule
- inconsistent personnel (untrained) undertaking maintenance
- cleaning and toner replacement not identified
- short term solutions included identifying high-use time and planning maintenance accordingly (full service required), redirect printing, signage, instruction manual and training
- long term solutions included preventative maintenance, parts on hand, co-coordinator appointed, training and service level agreements.

This question was particularly in depth in its scope so candidates were able to analyse, and be able to provide solutions in their answers. A large number of candidates tended to focus on one component throughout their answer.

Unfortunately many candidates are still unfamiliar with the BOS Glossary of Key Words. Few candidates knew how to show analysis in their answers.

Question 22

This question was attempted by approximately 40% of candidates.

As with the other two options, this question also required students to write a report. Responses in the higher ranges demonstrated report writing skills and communicated in a professional manner with the E-Travel organisation. These answers clearly demonstrated comprehensive knowledge of appropriate software applications and clear recommendations answering all facets of the question. They provided clear advice regarding the implications for E-Travel and the choices they made.

Mid range responses varied. Some candidates provided clear and adequate reasons for some recommendations and were able to describe some simple strategies. However many glossed over the software recommendations and did not clearly analyse their suggested software solutions. Many responses also mentioned the E-Travel scenario only briefly.

Low range responses often omitted mentioning the software applications. Responses in this mark range were often very weak in their recommendations or simply listed solutions without any clear attempt at analysis or providing any reasons for a recommendation. Responses in this range also neglected to properly relate their response to the E-Travel scenario.

As a summary, many candidates' responses reflected personal practices, such as, downloading free software from the internet to provide a business solution. As this is not the correct practice, students should try to draw on experiences gained whilst on work placement and from the *Communicate in the workplace* unit.

2006 HSC Information Technology Marking Guidelines

Section II

Question 16

Competencies assessed: ICAITS017C, ICAITS015B

MARKING GUIDELINES

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none"> One mark for each task in the correct place | 7 |

Question 17 (a) (i)

Competencies assessed: ICAIT006C, ICAITU013C

MARKING GUIDELINES

| Criteria | Marks |
|--|-------|
| <ul style="list-style-type: none"> Correctly identifies field number as 5 | 1 |

Question 17 (a) (ii)

Competencies assessed: ICAIT006C, ICAITU013C

MARKING GUIDELINES

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none"> Correctly identifies record number as 7 | 1 |

Question 17 (b)

Competencies assessed: ICAIT006C, ICAITU013C

MARKING GUIDELINES

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none"> Provides the required details for the TWO records in correct order | 3 |
| <ul style="list-style-type: none"> Has uniquely identified the correct borrowers (by Name or Borrower_ID) in correct order but not included required details OR <ul style="list-style-type: none"> Has identified the correct borrower with all required details but not in the correct order OR <ul style="list-style-type: none"> Has provided the correct records in the case where the inequality signs have been reversed | 2 |
| <ul style="list-style-type: none"> Some details for only ONE correct record using Name or Borrower_ID | 1 |

Question 17 (c)

Competencies assessed: ICAIT006C, ICAITU013C

MARKING GUIDELINES

| Criteria | Marks |
|--|-------|
| <ul style="list-style-type: none"> Describes a modification to include the addition of TWO fields of suburb and postcode in the database AND recognises the need to MOVE the existing data (suburb and postcode) into the newly created fields | 4 |
| <ul style="list-style-type: none"> Describes a modification to include the addition of TWO fields of suburb and postcode in the database, without mentioning the need to move data OR <ul style="list-style-type: none"> Describes a modification to include the addition of ONE field of suburb or postcode in the database AND recognises the need to MOVE the existing data (suburb and postcode) into the newly created fields | 3 |
| <ul style="list-style-type: none"> Recognises a problem because the suburb and postcode occur in the form letter but not in the database (No solution or incorrect solution given) OR <ul style="list-style-type: none"> Describes a modification to include the addition of ONE field of suburb or postcode in the database, without mentioning the need to move the data | 2 |
| <ul style="list-style-type: none"> Recognises incompatibility between fields in the form letter and the database | 1 |

Question 17 (d)*Competencies assessed: ICAIT006C, ICAITU013C***MARKING GUIDELINES**

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none">Add email field | 1 |

Question 18 (a) (i)*Competencies assessed: ICAITU007B, ICAITTW001B***MARKING GUIDELINES**

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none">Correctly identifies the Supervisor, the Finance Controller and Stock Controller (all THREE for ONE mark) | 1 |

Question 18 (a) (ii)*Competencies assessed: ICAITU007B, ICAITTW001B***MARKING GUIDELINES**

| Criteria | Marks |
|--|-------|
| <ul style="list-style-type: none">Correctly identifies the need to check in case the item is in stock OR <ul style="list-style-type: none">Correctly identifies another significant ordering requirement | 1 |

Question 18 (b)*Competencies assessed: ICAITU007B, ICAITTW001B***MARKING GUIDELINES**

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none">Reasonable justification on the basis of quality, price and compatibility | 3 |
| <ul style="list-style-type: none">Reasonable justification on the basis of any TWO of quality, price or compatibility | 2 |
| <ul style="list-style-type: none">Reasonable justification on the basis of any ONE of quality, price or compatibility | 1 |
| <ul style="list-style-type: none">Naming ONE supplier | 0 |

Question 18 (c)*Competencies assessed: ICAITU007B, ICAITW001B***MARKING GUIDELINES**

| Criteria | Marks |
|---|--------------|
| • Outlines THREE reasons | 3 |
| • Outlines TWO reason or identifies THREE reasons | 2 |
| • Outlines ONE reason or identifies TWO reasons | 1 |

Question 18 (d)*Competencies assessed: ICAITU007B, ICAITW001B***MARKING GUIDELINES**

| Criteria | Marks |
|--|--------------|
| • All information in FOUR blocks substantially correct | 4 |
| • All information in THREE blocks substantially correct | 3 |
| • All information in TWO blocks substantially correct | 2 |
| • All information in ONE block substantially correct | 1 |

Question 19 (a)*Competencies assessed: ICAITTTW002B***MARKING GUIDELINES**

| Criteria | Marks |
|--|--------------|
| • Provides one characteristic of comparison | 2 |
| • Provides one characteristic of either telephone or email | 1 |

Question 19 (b)*Competencies assessed: ICAITTTW0002B***MARKING GUIDELINES**

| Criteria | Marks |
|--|--------------|
| <ul style="list-style-type: none">Assesses AT LEAST TWO similarities OR characteristics of telephone and fax which are related to the scenario | 4 |
| <ul style="list-style-type: none">Assesses ONE characteristic of telephone and fax ANDIdentifies or describes ONE other characteristic of telephone and fax which are related to the scenario | 3 |
| <ul style="list-style-type: none">Assesses ONE characteristic of telephone and fax which is related to the scenario OR <ul style="list-style-type: none">Identifies TWO characteristics of telephone and fax which are related to the scenario | 2 |
| <ul style="list-style-type: none">Poorly assesses ONE characteristic of telephone or fax OR <ul style="list-style-type: none">Identifies ONE characteristic of telephone or fax related to the scenario | 1 |

Section III

Question 20

Competencies assessed: ICAITU004C, ICAITU005C, ICAITW001B, ICAITW002B

MARKING GUIDELINES

| Criteria | Marks |
|---|-------|
| <ul style="list-style-type: none">• Addresses all components of the question• Provides a cohesive, well-reasoned response that reflects a high level of organisation, judgement, synthesise and problem solving skills• Demonstrates an in-depth understanding of IT functions with reference to the scenario used in the question• Consistently uses precise IT terminology to a professional level• Communicate in the manner required by the question consistently using standard industry formats | 13–15 |
| <ul style="list-style-type: none">• Addresses most components of the question• Provides a cohesive and well-reasoned response showing significant organisational and problem solving skills• Demonstrates a detailed understanding of IT functions with reference to the scenario used in the question• Uses precise IT terminology to a level acceptable in industry• Communicates in the manner required by the question using standard industry formats | 10–12 |
| <ul style="list-style-type: none">• Addresses some components of the question• Provides a response displaying some organisational and problem solving skills• Demonstrates a basic understanding of IT functions with limited reference to the scenario used in the question• Uses basic IT terminology• Communicates in the manner required by the question using elements of industry formats | 7–9 |
| <ul style="list-style-type: none">• Addresses minimal components of the question• Provides a response displaying limited organisational and problem solving skills• Demonstrates a limited understanding of IT functions• Uses some IT terminology• Communicates in the manner required by the question using few elements of industry formats | 1–6 |

Question 21*Competencies assessed: ICAITU007B, ICAITTW002B, ICAITT001B***MARKING GUIDELINES**

| Criteria | Marks |
|---|--------------|
| <ul style="list-style-type: none">• Addresses all components of the question• Provides a cohesive, well-reasoned response that reflects a high level of organisation, judgement, synthesise and problem solving skills• Demonstrates an in-depth understanding of IT functions with reference to the scenario used in the question• Consistently uses precise IT terminology to a professional level• Communicate in the manner required by the question consistently using standard industry formats | 13–15 |
| <ul style="list-style-type: none">• Addresses most components of the question• Provides a cohesive and well-reasoned response showing significant organisational and problem solving skills• Demonstrates a detailed understanding of IT functions with reference to the scenario used in the question• Uses precise IT terminology to a level acceptable in industry• Communicates in the manner required by the question using standard industry formats | 10–12 |
| <ul style="list-style-type: none">• Addresses some components of the question• Provides a response displaying some organisational and problem solving skills• Demonstrates a basic understanding of IT functions with limited reference to the scenario used in the question• Uses basic IT terminology• Communicates in the manner required by the question using elements of industry formats | 7–9 |
| <ul style="list-style-type: none">• Addresses minimal components of the question• Provides a response displaying limited organisational and problem solving skills• Demonstrates a limited understanding of IT functions• Uses some IT terminology• Communicates in the manner required by the question using few elements of industry formats | 1–6 |

Question 22*Competencies assessed: ICAITU012C, ICAITU013C, ICAITTW001B, ICAITTW002B***MARKING GUIDELINES**

| Criteria | Marks |
|---|--------------|
| <ul style="list-style-type: none">• Addresses all components of the question• Provides a cohesive, well-reasoned response that reflects a high level of organisation, judgement, synthesise and problem solving skills• Demonstrates an in-depth understanding of IT functions with reference to the scenario used in the question• Consistently uses precise IT terminology to a professional level• Communicate in the manner required by the question consistently using standard industry formats | 13–15 |
| <ul style="list-style-type: none">• Addresses most components of the question• Provides a cohesive and well-reasoned response showing significant organisational and problem solving skills• Demonstrates a detailed understanding of IT functions with reference to the scenario used in the question• Uses precise IT terminology to a level acceptable in industry• Communicates in the manner required by the question using standard industry formats | 10–12 |
| <ul style="list-style-type: none">• Addresses some components of the question• Provides a response displaying some organisational and problem solving skills• Demonstrates a basic understanding of IT functions with limited reference to the scenario used in the question• Uses basic IT terminology• Communicates in the manner required by the question using elements of industry formats | 7–9 |
| <ul style="list-style-type: none">• Addresses minimal components of the question• Provides a response displaying limited organisational and problem solving skills• Demonstrates a limited understanding of IT functions• Uses some IT terminology• Communicates in the manner required by the question using few elements of industry formats | 1–6 |