

**2007 HSC Notes from  
the Marking Centre  
Information Technology**

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# 2007 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 contains comments on candidate responses to the 2007 Higher School Certificate examination, indicating the quality of the responses and highlighting their relative strengths and weaknesses.

This document should be read in conjunction with the relevant syllabus, the 2007 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.

## General Comments

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 the knowledge, understanding and skills they have 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.

Teachers and candidates should also be aware that 2007 was the last year that the old Information Technology Curriculum Framework (originally from 1999, updated in 2002) was examined. In 2008 the examination will be based on the revised Information Technology Curriculum Framework – see Board Bulletin Official Notice Volume 15 No. 2 (BOS 14/06).

## Section I

### Multiple choice

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

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

## Section II

### Question 16

Candidates generally were familiar with the requirements of each part of the question. In weaker responses, candidates demonstrated difficulty in understanding what the key words ‘define’, ‘explain’ and ‘analyse’ required them to do.

- (a) As there was only one mark available for each part, candidates were expected to give a correct definition for each term.
- (b) Many responses identified a measure that helps to minimise repetitive strain injury (RSI) or occupational over-use syndrome (OOS) but only a small number were able to properly relate the measure to components of RSI. The best responses relayed the effect that repetitive movement has on specific areas of the body, eg muscles, joints.
- (c) Better responses analysed the lack of power outlets and the potential dangers of overloading the one double power point. Because there were few power points, extension leads and power boards would be required for the quantity of equipment needed and these would present a trip hazard. The majority of responses identified at least one of these issues.

### Question 17

- (a) Most responses identified examples of a label, data and a formula from the spreadsheet.
- (b) This part tested a candidate’s understanding of relative and absolute cell referencing. The best responses indicated that a relative reference would be needed for the cell B11 and that the absolute reference to cell C4 would change to C10.
- (c) Most responses identified reasons for using a template but some answers lacked judgements of value. Most responses identified the time-saving aspect of templates.

### Question 18

In general, candidates are still not demonstrating understanding of the words in the Board’s Glossary of Key Words. It is vital that candidates are conversant with the meanings of these terms to allow them to satisfactorily meet the question requirements.

- (a) Most responses identified, using appropriate terminology, at least one item of information. Weaker responses included items such as CD-ROM, cabling and drivers. A number of responses did not relate to the installation of the device (eg warranty) and/or did not make specific reference to an item of information. Weaker responses included how to perform the installation.
- (b) Most responses identified an appropriate source of information that would resolve the issue of the sticky residue on the glass plate. Better responses related their chosen source of information to the scenario used in the question. Weaker responses did not provide a specific source of information and a significant number of candidates did not provide adequate reasoning for their chosen source of information.

- (c) Most responses correctly selected the USB as the appropriate interface. Better responses provided sound justifications that related to the operation of a USB interface including its fast rate of data transfer and the feature of hot swappability and/or plug and play. Better responses provided two valid justifications for choosing USB over parallel. Weaker responses merely provided comparisons between parallel and USB interfaces rather than making a commitment to either in their answer.

### Question 19

- (a) Most candidates answered this question correctly.
- (b) Many responses defined an attachment as a ‘file’ or ‘document’ of some kind, or gave an example of the purpose of using an attachment. Better responses included the retention of the formatting of an attached file and the fact that the file could be stored on the sender’s or receiver’s desktop for later use.

Some candidates missed the importance of the word ‘attachment’ and explained the benefits of emails. Responses such as ‘quick and easy’ and ‘time saving’, without further explanations, should be avoided. Several responses compared the use of email attachments with the manual distribution of printed documents.

- (c) In many responses, appropriate hardware devices were identified and specific examples or descriptions of their specifications were given. Appropriate responses included RAM size, processor speed or type, HDD capacity or actual measures such as 1GB of RAM or 80 GB HD space.

In the weakest responses, candidates listed hardware components without a descriptive attribute, such as RAM, rather than RAM size. Some candidates misinterpreted the question, making suggestions as to how to upgrade a computer or referred to categories for an inventory.

- (d) Many responses implied or directly stated that knowledge of the hardware specifications could be used to populate an inventory, which in turn could be used to benefit the company. Appropriate responses included future reference to the inventory when considering upgrading hardware or purchasing compatible software.

Weaker responses included reference to help-desk issues and maintenance without explanation or direct reference to the use of an inventory, indicating a lack of understanding of the meaning of ‘hardware specifications’.

## Section III – Options

Candidates are required to attempt two of the three questions.

### Question 20

Approximately 86% of candidates attempted this question with a significant proportion showing adequate understanding. However, few were able to show an in-depth understanding with a detailed description of procedures for each area to minimise support requests.

Many responses:

- identified causes relating to network access issues and provided basic solutions such as checking network cables and CAPS lock key when typing passwords
- identified ergonomic issues and provided a range of solutions detailing rest breaks, lighting and correct posture
- proposed solutions but did not identify possible problems associated with the four areas.

Better responses showed structure and included all memo elements such as To, From, Date, and Re. They recognised the purpose of the memo in an introduction and then provided several detailed problems and procedures for each of the four areas. Such responses demonstrated evidence of problem-solving skills by identifying issues and suitable solutions for typical support requests and they communicated this appropriately to a non-technical user. They illustrated procedures which would minimise IT support requests.

Some responses did not direct the support to the user workstation level, but instead provided suggestions on how the IT department should deal with each problem. This led to poorly written responses misinterpreting of the purpose of the memo.

Candidates are reminded that they only have about 30 minutes to answer each extended response question. They should use this time to plan, re-read, edit, add, delete, adjust and rewrite their response. A logical, well-reasoned and well-presented response with relevant information will always score well.

Extended response questions give candidates the opportunity to tell us what they know. This question provided candidates with the opportunity to demonstrate their understanding of the role of IT support within an organisation. However, not many candidates were able to cover all components equally correctly.

### Question 21

Approximately 85% of candidates attempted Question 21.

Candidates were required to consider the following in writing their reports:

- *System requirements*: Better responses compared minimum hardware specifications with recommended software requirements.
- *Software versions and compatibility*: Many responses discussed the concept of compatibility in relation to system requirements instead of relating it to the backward compatibility of data files from earlier versions of the software to be upgraded.

- *Licence conditions*: Better responses described the types of software licences available and were able to recommend an appropriate licence for the company. Some responses described the consequences of not having a licence; but the question did not ask for this.
- *System integrity*: Many responses stated that the integrity of a system is important, but did not provide details about how it could be maintained.

Better responses:

- included formal report features such as title page, contents, introduction, paragraphs with headings and a conclusion containing recommendations based on an analysis of the scenario
- consistently provided examples that were relevant to the scenario
- consistently used and defined industry specific terminology.

Average responses:

- included basic report features such as introduction, paragraphs with headings and a conclusion
- answered the question generally without giving specific examples related to the scenario
- used some terminology, and were able to describe procedures in some detail.

Weaker responses:

- had little or no understanding of report format
- rarely related to the scenario and did not provide examples
- often reworded without demonstrating an understanding of the terminology.

## Question 22

Only about 25% of candidates attempted Question 22, indicating it was not a choice that the majority of candidates felt confident to answer well. This was reflected in the quality of the responses with few being able to effectively analyse four database application functions (forms, queries, reports and relationships) to show a detailed or in-depth understanding.

Better responses:

- addressed all components of the question – defined all four database application functions (forms, queries, reports and relationships) and evaluated each of these in a detailed manner. The higher-scoring responses gave multiple evaluation statements
- provided explicit and detailed reference to the scenario by evaluating how each of these database application functions would be valuable to an organisation and stating that it was therefore essential that office staff be trained in how to use them
- consistently used industry terminology that was precise and professional to convey a detailed understanding
- used the setting out required for a report, including a title, introduction, contents, headings and recommendations/conclusion
- provided a cohesive, well-structured response relating all information to the given scenario.

Average responses:

- addressed most components of the question – defining most of the database application functions (forms, queries, reports and relationships) and evaluating each of these in a basic manner



- provided some reference to the scenario by describing how these database application functions would be valuable to an organisation in relation to training staff in their use
- used some industry terminology to convey a basic understanding of the database application functions and their value
- used some elements of a report.

Weaker responses:

- addressed minimal components of the question – only a few definitions and/or only a few evaluations
- sometimes related their evaluations to the scenario
- explained how to create forms, queries or reports; however, this was not part of the question
- defined the database application functions (forms, queries, reports and relationships) in a non-specific or limited manner
- discussed limited evaluations of database application functions (forms, queries, reports and relationships), which showed a limited understanding of the scenario
- used some industry terminology to convey a limited understanding of the database application functions and their value
- a minority of candidates in this mark range used report format.

# Information Technology

## 2007 HSC Examination Mapping Grid

Question	Marks	Unit of competency / Element of competency
<b>Section I</b>		
1	1	ICAITU007B Maintain Equipment and Consumables
2	1	ICAITU006C Operate Computing Packages ICAITS017C Maintain System Integrity
3	1	ICAITU013C Integrate Commercial Computing Packages ICAITU006C Operate Computing Packages
4	1	ICAITU013C Integrate Commercial Computing Packages
5	1	ICAITU005C Operate Computer Hardware
6	1	ICAITU007B Maintain Equipment and Consumables
7	1	ICAITU004C Apply OHS
8	1	ICAITU012C Design Organisational Documents
9	1	ICAITS014C Connect Hardware Peripherals
10	1	ICAITS015B Install Software Applications
11	1	ICAITS017C Maintain System Integrity
12	1	ICAITU005C Operate Computer Hardware
13	1	ICAITU013C Integrate Commercial Computing Packages
14	1	ICAITU006C Operate Computing Packages
15	1	ICAITU006C Operate Computing Packages
<b>Section II</b>		
16(a)	3	ICAITU004C Apply OHS
16(b)	3	ICAITU004C Apply OHS ICAITU005C Operate Computer Hardware
16(c)	4	ICAITU004C Apply OHS ICAITS014C Connect Hardware Peripherals
17(a)	3	ICAITU006C Operate Computing Packages
17(b)	2	ICAITU006C Operate Computing Packages
17(c)	4	ICAITU012C Design Organisational Documents
18(a)	3	ICAITS015B Install Software Applications ICATS014C Connect Hardware Peripherals

Question	Marks	Unit of competency / Element of competency
18(b)	2	ICAITU007B Maintain Equipment and Consumables
18(c)	3	ICATS014C Connect Hardware Peripherals
19(a)	1	ICAITW002B Communicate in the Workplace
19(b)	2	ICAITW002B Communicate in the Workplace
19(c)	3	ICAITS014C Connect Hardware Peripherals
19(d)	2	ICAITU007B Maintain Equipment and Consumables
<b>Section III</b>		
20	15	ICAITW001B Work Effectively in IT Environment ICAITW002B Communicate in the Workplace ICAITU004C Apply OHS ICAITU005C Operate Computer Hardware
21	15	ICAITW001B Work Effectively in IT Environment ICAITW002B Communicate in the Workplace ICAITS015B Install Software Applications ICAITS017C Maintain System Integrity
22	15	ICAITW001B Work Effectively in IT Environment ICAITW002B Communicate in the Workplace ICAITU006C Operate Computing Packages

## 2007 HSC Information Technology Marking Guidelines

### Section II

#### Question 16 (a)

*Competencies assessed: ICAITU004C*

#### MARKING GUIDELINES

Criteria	Marks
• Correctly defines THREE terms	3
• Correctly defines TWO terms	2
• Correctly defines ONE term	1

#### Question 16 (b)

*Competencies assessed: ICAITU004C, ICAITU005C*

#### MARKING GUIDELINES

Criteria	Marks
• Identifies a measure and details its effect on minimizing aspects of RSI or OOS	3
• Identifies a measure and relates its effect on the term RSI or OOS	2
• Identifies a measure	1

**Question 16 (c)**

*Competencies assessed: ICAITU004C, ICAITU005C, ICAITS014C*

**MARKING GUIDELINES**

Criteria	Marks
• Identifies TWO hazards and relates their implication to the scenario	4
• Identifies TWO hazards and relates the implication of one hazard to the scenario	3
• Identifies ONE hazard and relates its implication to the scenario OR	2
• Identifies at least TWO hazards	
• Identifies ONE cause of hazard	1

**Question 17 (a)**

*Competencies assessed: ICAITU012C, ICAITU006C*

**MARKING GUIDELINES**

Criteria	Marks
• Correctly matches the THREE examples	3
• Correctly matches TWO examples	2
• Correctly matches ONE example	1

**Question 17 (b)**

*Competencies assessed: ICAITU012C*

**MARKING GUIDELINES**

Criteria	Marks
• Correctly identifies absolute AND relative references	2
• Correctly identifies absolute OR relative reference • =B\$11* (any reference excluding C4) OR • = (any reference excluding B\$11) * C10	1

**Question 17 (c)***Competencies assessed: ICAITU012C***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Identifies TWO reasons with judgement(s) of value for each benefit	4
• Identifies TWO reasons with judgement(s) of value for only ONE benefit	3
• Identifies ONE reason with judgement(s) of value for this benefit OR	2
• Identifies TWO reasons with no judgement(s) of value	
• Identifies ONE reason with no judgement(s) of value	1

**Question 18 (a)***Competencies assessed: ICAITS014C, ICAITS015B***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Identifies THREE items of information relating to installation	3
• Identifies TWO items of information relating to installation	2
• Identifies ONE item of information relating to installation	1

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

<b>Criteria</b>	<b>Marks</b>
• Identifies ONE source of information and provides reason(s) for selection	2
• Identifies ONE source of information	1

**Question 18 (c)***Competencies assessed: ICAITS014C***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Selects USB and provides at least TWO appropriate justifications	3
• Selects USB and provides at least ONE appropriate justification	2
• Selects USB and provides no appropriate justifications	1

**Question 19 (a)***Competencies assessed: ICAITTW002B***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Answer 3	1

**Question 19 (b)***Competencies assessed: ICAITTW002B***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Identifies a benefit and supports the use	2
• Names a benefit	1

**Question 19 (c)***Competencies assessed: ICAITS014C, ICAITU007B***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Identifies THREE appropriate hardware specifications	3
• Identifies TWO appropriate hardware specifications	2
• Identifies ONE appropriate hardware specification	1

**Question 19 (d)***Competencies assessed: ICAITU007B***MARKING GUIDELINES**

<b>Criteria</b>	<b>Marks</b>
• Identifies reason with judgement of value to a company	2
• Identifies reason with no judgement of value to a company	1

## Section III

### Question 20

*Competencies assessed: ICAITW001B, ICAITW002B, ICAITU004C, ICAITU005C*

#### MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> <li>Addresses all components of the question</li> <li>Provides a cohesive, well-reasoned response that reflects a high level of organisation, judgement, synthesis and problem solving skills</li> <li>Demonstrates an in-depth understanding of IT functions with reference to the scenario used in the question</li> <li>Consistently uses precise IT terminology to a professional level</li> <li>Communicates in the manner required by the question consistently using standard industry formats</li> </ul>	13–15
<ul style="list-style-type: none"> <li>Addresses most components of the question</li> <li>Provides a cohesive, well-reasoned response showing significant organisational and problem solving skills</li> <li>Demonstrates a detailed understanding of IT functions with reference to the scenario used in the question</li> <li>Uses precise IT terminology to a level acceptable in industry</li> <li>Communicates in the manner required by the question using standard industry formats</li> </ul>	10–12
<ul style="list-style-type: none"> <li>Addresses most components of the question</li> <li>Provides a response displaying some organisational and problem solving skills</li> <li>Demonstrates a basic understanding of IT functions with limited reference to the scenario used in the question</li> <li>Uses basic IT terminology</li> <li>Communicates in the manner required by the question using elements of industry formats</li> </ul>	7–9
<ul style="list-style-type: none"> <li>Addresses some components of the question</li> <li>Provides a response displaying limited organisation and problem solving skills</li> <li>Demonstrates a limited understanding of IT functions</li> <li>Uses some IT terminology</li> <li>Communicates in the manner required by the question using few elements of industry formats</li> </ul>	4–6
<ul style="list-style-type: none"> <li>Addresses minimal components of the question</li> <li>Provides a response displaying limited organisation</li> <li>Communicates in the manner required by the question using minimal elements of industry formats</li> </ul>	1–3



**Question 21**

*Competencies assessed: ICAITW001B, ICAITW002B, ICAITS015B, ICAITS017C*

**MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none"> <li>• Addresses all components of the question</li> <li>• Provides a cohesive, well-reasoned response that reflects a high level of organisation, judgement, synthesis and problem solving skills</li> <li>• Demonstrates an in-depth understanding of IT functions with reference to the scenario used in the question</li> <li>• Consistently uses precise IT terminology to a professional level</li> <li>• Communicates in the manner required by the question consistently using standard industry formats</li> </ul>	13–15
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<ul style="list-style-type: none"> <li>• Addresses most components of the question</li> <li>• Provides a response displaying some organisational and problem solving skills</li> <li>• Demonstrates a basic understanding of IT functions with limited reference to the scenario used in the question</li> <li>• Uses basic IT terminology</li> <li>• Communicates in the manner required by the question using elements of industry formats</li> </ul>	7–9
<ul style="list-style-type: none"> <li>• Addresses some components of the question</li> <li>• Provides a response displaying limited organisation and problem solving skills</li> <li>• Demonstrates a limited understanding of IT functions</li> <li>• Uses some IT terminology</li> <li>• Communicates in the manner required by the question using few elements of industry formats</li> </ul>	4–6
<ul style="list-style-type: none"> <li>• Addresses minimal components of the question</li> <li>• Provides a response displaying limited organisation</li> <li>• Communicates in the manner required by the question using minimal elements of industry formats</li> </ul>	1–3

**Question 22**

*Competencies assessed: ICAITW001B, ICAITW002B, ICAITU006C*

**MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none"> <li>• Addresses all components of the question</li> <li>• Provides a cohesive, well-reasoned response that reflects a high level of organisation, judgement, synthesis and problem solving skills</li> <li>• Demonstrates an in-depth understanding of IT functions with reference to the scenario used in the question</li> <li>• Consistently uses precise IT terminology to a professional level</li> <li>• Communicates in the manner required by the question consistently using standard industry formats</li> </ul>	13–15
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<ul style="list-style-type: none"> <li>• Addresses minimal components of the question</li> <li>• Provides a response displaying limited organisation</li> <li>• Communicates in the manner required by the question using minimal elements of industry formats</li> </ul>	1–3