

**2006 HSC Notes from
the Marking Centre
Construction**

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2006 HSC NOTES FROM THE MARKING CENTRE

CONSTRUCTION

Introduction

This document has been produced for the teachers and candidates of the Stage 6 course in Construction. It provides comments with regard to responses to the 2006 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 2006 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 Construction.

The Construction Curriculum Framework is designed to enable students to acquire a range of technical, personal and organisational skills valued both within and beyond the workplace. Students also acquire underpinning skills and knowledge related to function areas within the construction industry.

Specific Comments

Approximately 1227 candidates attempted the 2006 Construction HSC 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.

The paper consists of THREE sections.

Section I

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

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

Section II

Question 16

The majority of candidates attempted this question well. Reference was made to DRABCD, seeking medical assistance and post first aid treatment. In better responses, candidates recognised the need to eliminate the power supply.

Question 17

- (a) The majority of candidates were able to interpret the drawing and demonstrate knowledge of using a dumpy.
- (b) Better responses included knowledge of the process of transferring and calculating reference marks.

Question 18

- (a) The majority of candidates indicated two requirements of the question in their response. Better responses included three requirements; cover, position and access and OHS requirements.
- (b) The question required candidates to recognise the importance of public safety (risk assessment) with the application of barricades and signage. Generally, sound reference to technique and team lifting was included in the majority of responses. A small number of responses made reference to the application of mechanical aids.

Question 19

- (a) A large number of candidates gave reference to using a wet saw, brick saw or indicated the use of spraying of water. A number of weaker responses indicated the application of dust extraction and industrial vacuum systems.
- (b) The majority of candidates demonstrated an understanding of the calculation required. Many had difficulty with unit conversion, ie millimetres to metres and indicated the final answer in metres square, instead of cubic metres as required.
- (c) The majority of candidates were unable to carefully analyse the relationship between paver size, cost per paver and the 10% allowance required to cover the courtyard.

Question 20

- (a) The majority of candidates were able to use the stimulus material to respond to this question. Some candidates did not mention the white colour in the signs.
- (b) The majority of candidates produced an appropriate sketch. A high percentage of candidates were unable to include all colours with their labelling. A small number of candidates used the signage in part 'a' to produce the sketch.

- (c) Candidates demonstrated a lack of understanding about the reasons why signs are effective communicators. Weaker responses were unable to acknowledge the fact that colours, symbols and sizes are produced to a standard, often just referring to ‘bright colours’ or ‘large signs’ as the reasons why they are noticed and understood. They listed the features of the signs included in the question and were unable to describe the reasons for their effectiveness.

Question 21

- (a) The majority of candidates provided a response to this question. Providing a purpose for trench mesh proved a challenge for many, as the word ‘tension’ or ‘tensile strength’ was not present in many responses. Very few candidates were able to name the brick tie; however, a large number of candidates correctly identified the stud and its purpose.
- (b) The majority of candidates found this question difficult. Few candidates were able to discuss the implications of amending the specification such as plan amendment, change of materials, loss of time and money and resubmission to council. Most candidates were unable to show any understanding of the term ‘specifications’.

Question 22

- (a) Most candidates responded to this question using general knowledge about tool selection. Weaker responses were unable to clearly outline the issues associated with pneumatic tools and the need for a compressor, hoses and electricity. There was a tendency for weaker responses to refer to general OHS rather than answer specifics of the question.
- (b) The majority of candidates were able to discuss the actual use of the tool rather than outlining the risk assessment for pre, during and post use. Many candidates ignored the reference in the question to an unpowered site and the associated issues including safety considerations.

Section III

Question 23

Approximately 75% of the candidates attempted this question. The majority of candidates addressed this question in four distinct sections: industrial awards; enterprise agreements; industry training; conflict resolution procedures; and safety induction training which reflected the question scaffold. Candidates demonstrated a clear knowledge of safety and industry training and were able to outline the main features of each. The use of relevant examples and correct terminology to support discussion, particularly the benefits of safety training in minimising accidents, was evident in most responses. Better responses included discussion about the impact of this training on productivity and efficiency. Some candidates recognised that effective training resulted in a faster, more cost-effective workplace and higher-quality outputs.

Industrial awards were often confused with hard-work rewards and many candidates used examples, including employee of the month or a bonus prize to illustrate this system. Many candidates displayed some knowledge of enterprise agreements and referred to examples including holiday pay and sick leave, but were unable to make a link to improved productivity and efficiency. Many candidates discussed conflict resolution in terms of workers having fights and disagreements, with few elaborating upon the impact of conflict resolution procedures on the culture of the workplace and its role in minimising issues such as harassment, discrimination and allowing the workplace to function effectively.

Question 24

Approximately 91% of candidates attempted this question. The majority of candidates were able to respond to this type of question, as a significant part of the Construction syllabus, the induction course and the 70 hours of mandatory work placement involve OHS issues and accidents. Better responses provided examples from all three areas.

Most candidates utilised the stimulus to structure their response, with the better responses providing a wide range of examples drawn from their own experience in addition to that of the stimulus. Some candidates simply provided a description of the roles of industry personnel, and did not relate these to accident prevention. Better responses displayed an understanding of personnel roles and the way they interrelated with each other, considered the OHS Act and Regulations and were able to relate personnel roles to the requirements of the Act.

In addition, candidates considered the sustainability of safe work systems on a building site, and explained how safe work systems improved accident prevention. In this section, candidates identified areas including: risk and hazard identification; management of controls; job safety analysis; work method statements; safety training (including inductions); licensing; plant checks and maintenance; and reporting accidents and near misses.

Question 25

Approximately 32% of candidates attempted this question. Candidates made an attempt at all four parts of the question, with their interpretation and analysis of the drawing varying with a range of recommendations. The majority of candidates used industry terminology to discuss the recommendations for the establishment and planning of a construction site.

The location of the shed caused some confusion for some candidates, as they interpreted the site plan as requiring three sheds. In general, site security was well addressed, with candidates understanding the need for perimeter fencing, lockable gates and storage for tools and equipment. In better responses, candidates demonstrated the need for appropriate construction signage on the front entrance of the perimeter fence and the contracting of security guards.

The total rent costs for a six-month construction period was well answered by the majority of candidates. Management of environmental issues challenged the majority of candidates, with most using general terms in their response.

2006 HSC Construction Marking Guidelines

Section II

Question 16

Competencies assessed: RTC2704A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> Demonstrates a sound knowledge of first aid principles and first aid management and describes DRABC or DRABCD and the generalised principles of first aid management on a worksite 	4
<ul style="list-style-type: none"> Demonstrates a general knowledge of first aid on a worksite referring to both assessing and procedures required for a description of DRABC or DRABCD with an in depth description of one relevant area 	2–3
<ul style="list-style-type: none"> Shows a limited understanding of first aid requirements 	1

Question 17 (a)

Competencies assessed: BCGCM2006B

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> Indicates a position where there is line of sight to points <i>A</i>, <i>B</i> and <i>C</i> 	1

Question 17 (b)*Competencies assessed: BCGCM2006B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates clearly the need to move the dumpy level and take reference readings	2
• Demonstrates a need to be able to reference point <i>D</i> to the other points	1

Question 18 (a)*Competencies assessed: BCGCM2004B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates a sound understanding of the stacking and storage of timber flooring	2
• Demonstrates a basic understanding of stacking and storage of timber flooring	1

Question 18 (b)*Competencies assessed: BCGCM2004B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates a broad knowledge of manual handling and moving materials on a site	3
• Demonstrates a general knowledge of manual handling	2
• Demonstrates a basic knowledge of manual handling	1

Question 19 (a)*Competencies assessed: BCGCM2004B***MARKING GUIDELINES**

Criteria	Marks
• An appropriate method of dust suppression	1

Question 19 (b)*Competencies assessed: BCGCM1005B***MARKING GUIDELINES**

Criteria	Marks
• Correct answer and units	2
• Correct method	1

Question 19 (c)*Competencies assessed: BCGCM1005B***MARKING GUIDELINES**

Criteria	Marks
• Correct answer	2
• Incorrect solution but demonstrates understanding of calculation	1

Question 20 (a)*Competencies assessed: BCGCM1001B, BCGCM1004B***MARKING GUIDELINES**

Criteria	Marks
• Correct description of a sign	1

Question 20 (b)*Competencies assessed: BCGCM1001B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates a knowledge of signage standards for a prohibition sign with a sketch and labelling	2
• Demonstrates a knowledge of signage for a prohibition sign by a sketch	1

Question 20 (c)*Competencies assessed: BCGCM1004B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates a comprehensive understanding of effective signage communication	3
• Demonstrates that signage is an effective communication device and can give reasons	2
• Provides a reason/feature of effective signage	1

Question 21 (a)*Competencies assessed: BCGCM2001B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates an extensive knowledge of all the components and their purpose	3
• Demonstrates a sound knowledge of most of the components and their purpose	2
• Displays limited knowledge of a component and/or provides a basic understanding of purpose	1

Question 21 (b)*Competencies assessed: BCGCM1002B, BCGCM1003B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates a comprehensive understanding of amendments to specifications	3
• Demonstrates an understanding of amendments to specifications	2
• Provides an implication	1

Question 22 (a)*Competencies assessed: BCGCM2005B***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates a sound understanding of the needs in selecting the most appropriate tool	2
• Demonstrates a basic understanding of reasons for the selection of tools	1

Question 22 (b)*Competencies assessed: BCGCM2005B***MARKING GUIDELINES**

Criteria	Marks
• Considers a range of procedures demonstrating a sound knowledge. Must include consideration of safe workplace procedures	4
• Considers some procedures in limited detail or a limited range in some depth. Must include consideration of safe workplace procedures	2–3
• Considers an aspect of procedure, demonstrating a basic understanding of safe workplace procedures	1

Section III

Question 23

Competencies assessed: BCGM1001B, BCGM1002B, BCGCM1003B, BCGCM1004B

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates extensive knowledge of improvements in productivity/efficiency• Correctly uses precise industry terminology in a well-reasoned and cohesive response• Considers issues, indicating the main features of each	13–15
<ul style="list-style-type: none">• Demonstrates a clear knowledge of improvements in productivity/efficiency• Uses appropriate industry terminology in a cohesive response• Addresses issues to varying degrees	10–12
<ul style="list-style-type: none">• Demonstrates a general understanding of improvements in productivity/efficiency• Uses basic industry terminology in context• Addresses issue(s) to varying degrees	7–9
<ul style="list-style-type: none">• Demonstrates a basic understanding of improvements in productivity/efficiency• Indicates that efficiency and safe work practices are important• Uses industry terminology	4–6
<ul style="list-style-type: none">• Displays a limited understanding of improvements in productivity/efficiency• Indicates some knowledge of working efficiently and safely• Uses limited industry terminology	1–3

Question 24*Competencies assessed: BCGCM1001B, BCGCM1004B***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates extensive relevant knowledge of OHS Act, its application and its importance to the workplace• An extensive knowledge and understanding of workplace safety• Correctly uses precise terminology in a well-organised response• Demonstrates a clear understanding of roles	13–15
<ul style="list-style-type: none">• Demonstrates a clear knowledge and understanding of planning and organising work, and the effect it has on the workplace• Understands and discusses the positive aspects of safe workplaces• Uses appropriate terminology in context• Demonstrates a knowledge of roles	10–12
<ul style="list-style-type: none">• Demonstrates a general understanding of planning and organising work• Is able to apply principles of safe workplaces• Uses basic industry terminology	7–9
<ul style="list-style-type: none">• Demonstrates a basic understanding of planning and organising work• Indicates that safe work practices are important• Uses some industry terminology	4–6
<ul style="list-style-type: none">• Displays a limited understanding of planning and organising work• Indicates some knowledge of working safely• Uses limited terminology	1–3

Question 25

Competencies assessed: BCGCM1005B, BCGCM1003B, BCGCM2004B, BCGCM1004B, BCGCM1002B

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none">• Provides an extensive range of recommendations, using a variety of accurate information• Correctly uses precise industry terminology in a well-reasoned and cohesive response• Demonstrates an extensive knowledge and understanding of factory sites, site plans and rental costs	13–15
<ul style="list-style-type: none">• Provides a range of recommendations, using some accurate information• Uses appropriate industry terminology in a cohesive response• Demonstrates a clear knowledge and understanding of site plans and rental costs	10–12
<ul style="list-style-type: none">• Demonstrates some understanding of site plans and rental costs• Uses basic industry terminology in context	7–9
<ul style="list-style-type: none">• Demonstrates a limited understanding of site implications and calculations• Uses industry terminology	4–6
<ul style="list-style-type: none">• Demonstrates a limited knowledge of site implications• Uses limited industry terminology	1–3