

**2004 HSC Notes from
the Marking Centre
VET Construction**

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2004 HSC NOTES FROM THE MARKING CENTRE

VET 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 2004 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 2004 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 Vet 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 1187 candidates attempted the 2004 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	D
2	C
3	C
4	A
5	D
6	A
7	A
8	B

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

Section II

The questions in this section are short response items.
All questions in this section are compulsory.

General Comments

Candidates were asked questions relating to communication, concreting tools, machine maintenance, correct lifting method, properties of materials, calculations relating to volume and sequencing of actions in a given scenario.

Question 16

This communication question was well answered by most candidates, displaying strong understanding of the mobile phone and its relationship to the industry. Sound advantages and disadvantages were provided.

Question 17

Most responses indicated a sound knowledge of the edging tool with many responses well supported. The bolster however, was mainly considered as a simple masonry item. Exact tool identification for the bolster was difficult for many.

Question 18

Some candidates were not able to interpret the question and were not able to draw a line to represent the slope of the ladder. Many candidates did not indicate the over hang that is required for a ladder in the situation.

Question 19

Most responses indicated a sound understanding of the cement mixer. They correctly identified and described appropriate checks in routine maintenance. A few candidates were not able to recognise the machine.

Question 20

The nature of manual handling is well understood by the majority of Construction candidates. All candidates responded appropriately in lifting correctly. Better responses included issues relating to twisting of the body during a lift, and bending vertically with back straight and lifting with quadriceps.

Question 21

Successful responses included appropriate communication methods relevant to the scenario given.

Question 22

Access to the higher mark range was limited due to an inability to differentiate between properties and characteristics and uses. Responses related to the components of the structure (ie wall/footing) rather than the actual materials (brick/concrete). Most responses focused on the ‘strength’ property and did not qualify this by describing the type of strength (tension/compression). Incorrect terminology was evident in many responses, particularly describing steel reinforcement as metal bars, trench mesh and wire. Cement was cited, rather than concrete in both areas (material/property).

Question 23

The surface area of the top was generally well done. A significant number of responses did not correctly calculate the curved surface area. Most responses calculated the volume of the cylinder rather than the surface area. The decimal point was often incorrectly placed. Many responses did not show working, with some using the figure calculated in part (a) of the question. In part (b) the conversion factor of 1000 was widely understood, although many responses used an incorrect volume.

Question 24

Responses did not indicate that candidates have an understanding of the assessment of danger to themselves and the injured worker, as being the first appropriate response. The majority of responses cited that some form of first aid was required, with many not including the appropriate personnel. The roles of the OHS committee and WorkCover were not correctly portrayed in many responses. Most responses did not include the need for recording the accident and the role of the worker in reporting the accident. The term ‘longer term actions’ was generally misinterpreted, with responses including worker compensation, back to work programs and other issues related to rehabilitation. Most responses included a sound understanding of hazard assessment and control.

Section III

The questions in this section are extended response items
Students must attempt TWO questions
All questions are of equal value.

Question 25

Approximately one third of the candidates attempted this question. Most responses referred to the dictionary definition, with some focusing more on explaining the meaning than on addressing the requirements of the question. Most candidates used the structure of the question as a guide in their responses. The terminology used was quite appropriate across the range of responses. A large proportion of responses addressed monetary and time costs related to both employers and employees, with most including some examples. The costs in relation to the client and in particular the general community were not addressed well by most candidates.

A sound understanding of the types of hazards and their control was evident. However, the actual cost of controlling hazards was addressed to a much lesser extent, particularly the costs of labour and the issue of penalty. Candidates demonstrated a lack of understanding of the verb ‘analyse’ in responding to the question.

Question 26

The majority of candidates attempted this question. Responses generally indicated an understanding of time management processes and concepts including maintenance, storage of materials and sequence of operations. Better responses included the requirements of planning considerations for the whole building process from concept to completion and addressed the roles of site supervisors as managers,

sequencing all activities and resources. Weaker responses addressed only a specific task of the building process, characterised by the work expected of a tradesman.

It was evident that candidates had drawn from their work placement experiences. The rubric at the start of section III needs to be considered when responding to extended response questions. Better responses included precise industry terminology in a well-reasoned and cohesive response.

Question 27

Approximately two thirds of the candidates attempted this question. The majority demonstrated an understanding of either plumb, level or square, but did not address all three to access the higher mark ranges. Drawing the information into a cohesive response was not evident in most cases. The tools that were consistently identified included plumb bob, spirit level and builders square. A small portion of candidates cited other tools including hydrostatic, dumpy, laser level and string line/pegs. Examples of the applications were omitted in the interpretation of the question. Some candidates explained the technical details about plumb, level and/or square, without reference to plant, equipment, tasks or situations. Most responses were basic scenarios, often poorly linked to concept.

Candidates appeared to be challenged by the communication aspect of the question. Communication often took the form of signage or verbal expressions, eg ‘yep, that’s level mate!’ or ‘she’s very plumb now!’. Only a few responses indicated communication via industry standards, eg pre-fabricated doors, cabinets and trusses being square. There were some elements of plans, measurement and calculations in some responses.

Several responses to the question used annotated diagrams. Although some understanding of plumb, level and square were demonstrated, these responses generally lacked relevant supporting information to satisfy question requirements.

Construction

2004 HSC Examination Mapping Grid

Question	Marks	Unit of competency / Element of competency
Section I		
1	1	BCG1002A
2	1	BCG1003A, BCC2000A
3	1	BCG1005A, BCC1005A
4	1	BCG1011A
5	1	BCG1003A, BCC2000A
6	1	BCG1001A
7	1	BCG1000A
8	1	BCG1008A
9	1	BCG1008A
10	1	BCG1005A, BCC1005A
11	1	BCG1006A, BCC1006A
12	1	BCG1001A
13	1	BCG1004A
14	1	BCG1000A, BCG1003A, BCC2000A
15	1	BCG1004A
Section II		
16	2	BCG1000A
17	4	BCG1005A, BCC1005A
18	2	BCG1001A
19	3	BCG1006A, BCC1006A
20	3	BCG1011A
21	6	BCG1002A
22	3	BCG1003A, BCC2000A
23	6	BCG1004A
24	6	BCG1001A
Section III		
25	15	BCG1001A, BCG1011A, BCG1002A
26	15	BCG1001A, BCG1011A, BCC2000A, BCC1005A, BCC1006A, BCG1002A, BCG1003A, BCG1005A, BCG1006A
27	15	BCG1000A, BCG1002A, BCG1003A, BCG1005A, BCG1006A, BCG1004A, BCG1008A, BCC2000A, BCC1005A, BCC1006A

2004 HSC Construction Marking Guidelines

Section II

Question 16

Competencies assessed: BCG1000A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> Provides the characteristics of an advantage and a disadvantage appropriate to a construction site 	2
<ul style="list-style-type: none"> Lists an advantage and a disadvantage appropriate to a construction site OR <ul style="list-style-type: none"> Provides the characteristics of either an advantage or a disadvantage 	1

Question 17

Competencies assessed: BCG1005A, BCC1005A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> Indicates complete understanding of the tools and their functions 	4
<ul style="list-style-type: none"> Indicates some understanding of the tools and/or their functions 	2–3
<ul style="list-style-type: none"> Indicates a limited understanding of the tools or their functions 	1

Question 18*Competencies assessed: BCG1001A***MARKING GUIDELINES**

Criteria	Marks
• Draws a line with correct slope and correct overhang/extension	2
• Draws a line to indicate either correct slope or correct overhang/extension	1

Question 19*Competencies assessed: BCG1006A, BCC1006A***MARKING GUIDELINES**

Criteria	Marks
• Identifies and provides characteristics of at least three maintenance tasks	3
• Identifies and provides characteristics of two maintenance tasks of this machine OR • Identifies three or more checks	2
• Provides a limited understanding of the maintenance of the machine	1

Question 20*Competencies assessed: BCG1011A***MARKING GUIDELINES**

Criteria	Marks
• Provides the characteristics of the correct lifting method	3
• Shows a working knowledge of the correct lifting method	2
• Shows a cursory knowledge of the correct lifting method	1

Question 21*Competencies assessed: BCG1002A***MARKING GUIDELINES**

Criteria	Marks
• Selects appropriate methods and clearly supports each selection	5–6
• Selects two appropriate methods and adequately supports both OR • Selects three appropriate methods and adequately supports one	3–4
• Selects one or two methods and supports one OR • Selects three appropriate methods without justification	1–2

Question 22*Competencies assessed: BCG 1003A, BCC 2000A***MARKING GUIDELINES**

Criteria	Marks
• Identifies all relevant materials and provides the characteristics of each	3
• Identifies two correct materials and their properties	2
• One correct material and its property	1

Question 23 (a)*Competencies assessed: BCG1004A***MARKING GUIDELINES**

Criteria	Marks
• Correctly calculates answer, indicating an appropriate method	4
• Appropriate method attempted, with one calculation or interpretation error	3
• Appropriate method indicated, with some calculation proficiency	2
• Shows understanding of calculation of circular area or curved surface area or indicates an appropriate method	1

Question 23 (b)*Competencies assessed: BCG1004A***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Correctly calculates volume in m³ and provides correct answer	2
<ul style="list-style-type: none">• Correctly calculates volume in m³ <p style="text-align: center;">OR</p> <ul style="list-style-type: none">• Correctly converts volume in m³ to litres	1

Question 24*Competencies assessed: BCG1001A***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Identifies an appropriate sequence of actions, including both immediate and longer term actions• Includes first aid as one action• Provides characteristics of identified actions• Indicates appropriate personnel for each action	5–6
<ul style="list-style-type: none">• Demonstrates a working knowledge of actions including first aid, and relevant personnel	3–4
<ul style="list-style-type: none">• Demonstrates a limited understanding of appropriate actions and/or personnel	1–2

Section III

Question 25

Competencies assessed: BCG1001A, BCG1011A, BCG1002A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Demonstrates extensive knowledge and understanding of the costs involved in the control of hazards for the construction industry • Analysis makes appropriate reference to both the content of the definition and the connection with the groups indicated • Correctly uses precise industry terminology in a well-reasoned organised and cohesive response • Extensive use of appropriate and varied examples to enhance answer 	13–15
<ul style="list-style-type: none"> • Analysis is clear and indicates a sound knowledge of the costs involved in the control of hazards • Uses a number of appropriate and varied examples linking them to the industry groups • Terminology is correct and specific to the construction industry 	10–12
<ul style="list-style-type: none"> • Indicates a working knowledge of the costs associated with the control of construction industry hazards • Indicates an awareness that the costs vary across the industry groupings • Uses basic industry terminology correctly • Provides supporting examples 	7–9
<ul style="list-style-type: none"> • Shows a basic understanding of hazard control and the link to cost • Indicates some knowledge of the relationship between cost and industry personnel, client or public • Terminology is appropriate • Uses example(s) 	4–6
<ul style="list-style-type: none"> • Limited understanding of hazards in the industry and the resultant cost • Terminology is limited • Some reference to industry groupings 	1–3

Question 26

Competencies assessed: BCG1001A, BCG1011A, BCG1002A, BCG1003A, BCG1005A, BCG1006A, BCC1005A, BCC1006A, BCC2000A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Demonstrates extensive understanding of time management within the construction industry • Explanation clearly links the reduction in time with examples and the considerations indicated • Correctly uses precise industry terminology in a well reasoned and cohesive response • All considerations are addressed 	13–15
<ul style="list-style-type: none"> • Explanation indicates a clear understanding of time management • Indicates an understanding of time management by the use of appropriate examples within the consideration areas indicated • Terminology is specific in context and appropriate to the industry 	10–12
<ul style="list-style-type: none"> • A general understanding of time management • Some appropriate examples support the considerations indicated • Communicates using basic industry terminology 	7–9
<ul style="list-style-type: none"> • Demonstrates a basic understanding that time can be reduced • Examples indicate an awareness that consideration precedes and informs action in some of the areas indicated • Communication is generally effective 	4–6
<ul style="list-style-type: none"> • Demonstrates awareness that ‘time can be reduced’ • Example supports an elementary explanation • Some evidence of industry practical knowledge 	1–3

Question 27

Competencies assessed: BCG1000A, BCG1002A, BCG1003A, BCG1004A, BCG1005A, BCG1006A, BCG1008A, BCC1005A, BCC1006A, BCC2000A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates extensive understanding of the application of plumb, level and square• Explanation is clear, concise and complete and addresses all areas indicated• Examples are varied and appropriate• Terminology is accurate and appropriate to the industry	13–15
<ul style="list-style-type: none">• Shows a clear understanding of plumb, level and square• Addresses scenarios appropriately indicating an understanding of the relationship between concept and application• Information is well structured• Uses appropriate and specific industry terminology	10–12
<ul style="list-style-type: none">• Shows an understanding of plumb, level and square within the response• Indicates some understanding of the processes and their links to concept• Communicates using basic industry terminology• Appropriate examples are linked to processes	7–9
<ul style="list-style-type: none">• Indicates an awareness of most of the concepts presented by plumb, level and square• Some examples show a basic understanding of the implementation of concepts• Uses some correct and appropriate industry terminology	4–6
<ul style="list-style-type: none">• Indicates an understanding of plumb or level or square• Can link concept to at least one scenario• Uses limited industry terminology	1–3