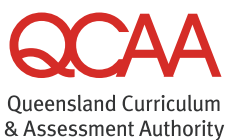# Retrospective

2017 Queensland Core Skills Test

Short Response (SR) (Part 2 of 5)

For all Queensland schools

Short Response (SR)

This year's SR subtest comprised 14 items across eight units. As students worked through each unit, they interacted with stimulus material, which was chosen to be challenging and engaging. Test developers paid careful attention to framing each item in a way that made it accessible to most students. The SR testpaper comprised units with stimulus material selected from fields such as mathematics, science, geography, history, the social sciences and literature.

This year's paper was varied in its content, covering a broad range of CCEs. The different tasks included determining numbers of pills/days, comparing temperatures, drawing following instructions, giving instructions, measuring carefully, interpreting quotations, creating an extension to an extract, providing clear explanations, using equipment (drawing compass) and describing how illustrations and ideas are connected.

Model responses and commentaries on student performance

What follows is an item-by-item report that includes model responses and marking schemes, tables and graphs of the distributions of grades, and commentaries that discuss the tasks. At times, references to specific student responses are included to exemplify observations. As much as possible, model responses are actual student responses. Model responses are those that demonstrate a high level of performance and would have been awarded the highest grade.

For some items, especially the more open-ended ones, responses were extremely varied. For these responses it is not possible to provide examples of the many ways students responded. The detailed, item-specific marking schemes indicate the scope of acceptable responses for different grades. Even for the more closed items the marking schemes demonstrate that different ways of perceiving 'the solution' were able to gain credit.

Marking schemes

The marking schemes used during the marking operation and included in this section of the *Retrospective* are not designed to be read in isolation. They are only one element of the marking prescription. During the marking operation, markers undergo rigorous training in how to apply the marking schemes to student responses of one marking unit. The training involves careful consideration and application of the material presented by immersers.

Each marking scheme provides descriptors for up to five creditable grades, as well as the non-contributory grades N (where the response is unintelligible or does not satisfy the requirements of any other grade) and O (where no response has been given).

For organisational purposes during the marking operation, the testpaper units were grouped into five marking units. In 2017, Marking Unit 1 contained testpaper units One and Five, Marking Unit 2 contained testpaper units Two and Eight, Marking Unit 3 contained testpaper unit Three, Marking Unit 4 contained testpaper units Four and Six and Marking Unit 7 contained testpaper unit Seven.

All SR items are double marked. This means that a student's response booklet is marked by at least 10 different, independent markers. Referee marking also occurs when necessary.

SR 2017 summary

Unit	Item	Basket	Common Curriculum Elements by unit
One *Swings*	1	α	5 *Interpreting the meaning of … illustrations* 10 *Using vocabulary appropriate to a context* 29 *Contrasting*
Two *Holidays*	2	ϕ	16 *Calculating with or without calculators* 37 *Applying a progression of steps to achieve the required answer*
Three *Cards*	3	α	10 *Using vocabulary appropriate to a context* 26 *Explaining to others* 27 *Expounding a viewpoint* 28 *Empathising*
	4	θ	29 *Comparing* 31 *Interrelating ideas …* 41 *Hypothesising*
Four *Laces*	5	α	7 *Translating from one form to another* 17 *Estimating numerical magnitude* 29 *Comparing* 32 *Deducing*
	6	β	37 *Applying a progression of steps to achieve the required answer* 49 *Perceiving patterns* 51 *Identifying shapes in two and three dimensions* 60 *Sketching/drawing*
Five *Plough*	7	θ	28 *Empathising* 31 *Interrelating* 43 *Analysing*
Six *Coldest*	8	ϕ	16 *Calculating with or without calculators* 29 *Comparing* 37 *Applying a progression of steps to achieve the required answer*
	9	θ	44 *Synthesising* 52 *Searching and locating … information* 57 *Manipulating/operating/using equipment*
Seven *Meeting*	10	π	10 *Using vocabulary appropriate to a context* 21 *Structuring … extended written text* 26 *Explaining to others* 28 *Empathising*
	11	β	43 *Analysing* 48 *Justifying* 50 *Visualising*
Eight *Wheat*	12	ϕ	16 *Calculating with or without calculators* 17 *Estimating numerical magnitude* 19 *Substituting in formulae*
	13	θ	20 *Setting out/presenting/arranging/displaying* 32 *Reaching a conclusion which is necessarily true provided a given set of assumptions is true*
	14	ϕ	37 *Applying a progression of steps to achieve the required answer* 45 *Judging*

Note: CCEs specific to an item are listed on the item's marking scheme.
        The baskets into which CCEs are grouped are shown in Appendix 3.

Unit One

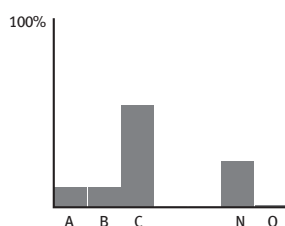The item in this unit is based on three different interpretations of a swing.

The following table shows the percentage of responses awarded the various grades for the item in this unit.

	A	B	C	D	E	N	O
Item 1	10.6	10.5	53.9			24.1	1.0
A shaded box indicates that the grade was not available for that item.							

Item 1

Commentary

Item 1 is a two-star item that tested achievement in CCEs 5 *Interpreting the meaning of … illustrations*, 10 *Using vocabulary appropriate to a context* and 29 *Contrasting*.

This item required students, for each interpretation of the swing, to give one adjective that would distinguish that swing from the other two and would capture an essential quality of the particular swing. Students were directed to use unhyphenated adjectives. The cue instructed students to choose each adjective carefully and to use words that would distinguish each swing from the others.

An A-grade response needed to provide three adjectives. The adjectives could not be words that were hyphenated words nor should be hyphenated. Each adjective had to describe a distinguishing characteristic of a swing. For the customer swing, such characteristics as simple, traditional or basic could be described. For the salesperson swing, such characteristics as elaborate, comfortable or lavish and for the engineer swing, sturdy, durable or strong characteristics could be described.

Some responses showed that the focus was on the illustration of the swings rather than the 'interpretation' proffered by the illustrations. This led to responses such as 'detailed' for the engineer swing interpretation which only focused on the illustration that provided labels and structural details rather than the interpretation of the swing.

Students should remember to not give multiple responses when the instruction is to give a single response. In this item, responses where more than one word was given for a swing could not gain credit for that swing.

Model response

the 'customer' swing is: ......simple...

the 'salesperson' swing is: ....elaborate..

the 'engineer' swing is: ....sturdy..

Marking Scheme

UNIT ONE   ITEM 1

PERFORMANCE DOMAIN	5	Interpreting the meaning of … illustrations	10	Using vocabulary appropriate to a context
	29	Contrasting		

A	B	C	N
The response provides THREE different adjectives.	The response provides THREE different adjectives/words.	The response provides TWO different adjectives/words.	Response is unintelligible or does not satisfy the requirements for any other grade.
Each of which	Each of which	Each of which	
• describes a distinguishing characteristic of the particular swing	• describes a characteristic of the particular swing	• describes a characteristic of the particular swing	
• is a single word that is not hyphenated nor should be hyphenated.	• is a single word that is not hyphenated nor should be hyphenated.	• is a single word that is not hyphenated nor should be hyphenated.	

O
No response has been made at any time.

Model Response:

the 'customer' swing is: simple

the 'salesperson' swing is: elaborate

the 'engineer' swing is: sturdy

Notes:

1. Characteristics of the swings include, for example:
   - for the 'customer' swing — simple, traditional, basic
   - for the 'salesperson' swing — elaborate, comfortable, lavish
   - for the 'engineered' swing — sturdy, durable, strong,

2. Any spelling error in a word must be minor, that is, the word must be unambiguously recognisable.

3. The adjective or word must describe the swing, not the illustration nor a part of the swing/s. For example the following are adjectives/words that would not be creditable: 'round' refers to the shape of the tyre; 'blue' refers to the colour of the chair; 'wooden' refers to the seat of the swing not the whole swing, and 'detailed' refers to the engineer's drawing of the swing not the swing itself.

4. Where more than one adjective/word is provided in the response space for a swing, the entry gains no credit.

5. Where more than one adjective/word is used in the form of a 'comparative' or 'superlative', none of the adjectives/words in this form can be used to gain credit.

6. An adjective/word formed by adding a prefix or suffix to an adjective/word already used, cannot be used to gain credit in addition to the 'base' adjective/word.

7. Adjectives/words derived from the item itself, for example, *engineered* and *functional* cannot be used to gain credit.
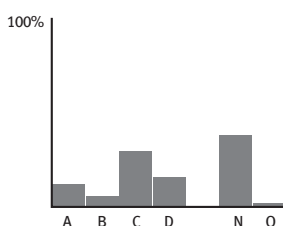
Unit Two

The item in this unit is based on managing the number of pills required.

The following table shows the percentage of responses awarded the various grades for the item in this unit.

	A	B	C	D	E	N	O
Item 2	11.3	5.3	29.1	15.3		37.4	1.6
A shaded box indicates that the grade was not available for that item.							

Item 2

Item 2 is a three-star item that tested achievement in CCEs 37 *Applying a progression of steps to achieve the required answer* and 16 *Calculating with or without calculators*.

This item presented students with information about Grant's holiday plans and the three types of pills he takes. It required students, in part I, to determine the number of each type of pill he has before he goes on holidays and, in part II, to determine how many days' worth of each pill he would have remaining on the last day of his holidays.

An A-grade response needed to provide the numbers 20, 34 and 10 for the number of pills in the appropriate cells in part l and 6, 3 and 6 for the number of days in the appropriate cells in part ll.

The working in some responses indicated that the stimulus was not read and considered carefully enough, e.g. using 45 or 47 as the number of days until Grant goes on holidays. The different dosages of the pills were clearly shown in the table in the introduction but at times these were not taken into account in a response. This item is an example of problem-solving where drawing a diagram/timeline would most likely have assisted in keeping the information organised. While working was not required to be shown, sufficient white space was provided for notes or diagrams.

Students should remember to read an item carefully and pay attention to details to ensure they answer the question asked. In this item some responses to part II gave the number of pills instead of number of days. Care should also be taken to provide answers in the appropriate spaces when directed to do so.

Model response

I. On the day before he begins his holidays and after taking his pills for that day, Grant checks how many pills he has. Find the number of each type of pill he has and complete the table.

type of pill	number of **pills**
A	20
B	34
C	10

II. Determine how many days' worth of each of his pills Grant would have remaining on the last day of his holidays after taking that day's pills. Complete the table.

type of pill	number of **days**
A	6
B	3
C	6

UNIT TWO   ITEM 2

Marking Scheme

PERFORMANCE DOMAIN

37   Applying a progression of steps to achieve the required answer

16   Calculating with or without calculators

A

The response provides

for part I

no. of pills
20
34
10

and for part II

no. of days
6
3
6

B

The response provides FIVE correct numbers in the appropriate cells in the tables.

— OR —

The response provides

for part I

no. of pills
21
36
10.5

and for part II

no. of days
7
4
7

— OR —

The response provides

for part I

no. of pills
19
32
9.5

and for part II

no. of days
5
2
5

C

The response provides THREE correct numbers in the appropriate cells in the tables.

— OR —

The response, based on the number of pills for A, B, C in part I, provides for part II

no. of days
A–14
half B–14
double C–14

D

The response provides TWO correct numbers in the appropriate cells in the tables.

— OR —

The response, based on the number of pills for A, B or C in part I, provides for part II, TWO of

no. of days
A–14
half B–14
double C–14

— OR —

The response provides for part I

no. of pills
21
36
10.5

OR

no. of pills
19
32
9.5

— OR —

The response provides for part II

no. of days
7
4
7

OR

no. of days
5
2
5

N

Response is unintelligible or does not satisfy the requirements for any other grade.

O

No response has been made at any time.

Notes:

1. For the response to gain credit the values must be shown in the appropriate cells in the tables.

2. Only numbers greater than zero can be given credit.

Model Response:

I.

type of pill	number of **pills**
A	20
B	34
C	10

II.

type of pill	number of **days**
A	6
B	3
C	6

Unit Three

The items in this unit are loosely based on an adaptation of a game played with a set of illustrated cards.

The following table shows the percentage of responses awarded the various grades for the items in this unit.

	A	**B**	**C**	**D**	**E**	**N**	**O**
Item 3	7.1	14.5	30.2	37.0		9.6	1.6
Item 4	5.4	19.1	39.7	17.1	7.9	4.4	6.3
A shaded box indicates that the grade was not available for that item.							

Item 3

Commentary
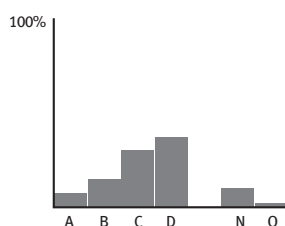
Item 3 is a three-star item that tested achievement in CCEs 28 E*mpathising*, 26 *Explaining to others* and 10 *Using vocabulary appropriate to a context*.

This item required students to associate the illustration on a card with the idea of fragile personalities and to give an explanation to support this by making direct links between two elements of the illustration and the idea.

An A-grade response needed to clearly identify two elements of the illustration and use these elements to describe how 'fragile personalities' was associated with the illustration. 'Fragile personalities' was interpreted in many different ways. Interpretations were made by combining notions of fragility with notions of personality. Responses did not need to state the interpretation/s explicitly, but had to make clear how the illustration was associated with the interpretation.

Some responses indicated that elements could be identified but instead of associating them with the full idea of fragile personalities they were in many cases only associated with part of the idea; that is, only 'fragile' or 'personalities'.

Students should ensure that each step of an explanation is clear, specific and logical. Responses should not rely on the reader to infer what was meant. Students should be wary of glossing over steps in explanations and assuming that readers are privy to their thoughts. Students should also avoid rewording and rewriting the stem as the first sentence of a response as this uses up time and response area space.

Model response

The illustration on the card below has been associated with the idea of **fragile personalities**. Give an explanation to support how the illustration is associated with this idea. Make direct links between two elements of the illustration and the idea.

The idea of fragile personalities may be associated with this image due to its use of mirrors on heads. The face and head is the main source of one's personality. Mirrors, which are very easily broken and fragile, have been used in place of the faces of the two figures. Continuing this reading of personality the mirrors also allow the figures to shield their uncertainty from the world as they reflect others in order to conform to society.

UNIT THREE   ITEM 3

Marking Scheme

PERFORMANCE DOMAIN	**28 Empathising**		**26 Explaining to others**
	10 Using vocabulary appropriate to a context		

A	B	C	D	N
The response clearly identifies TWO elements. The elements are used to • describe how 'fragile personalities' is associated with the illustration.	The response clearly identifies ONE element. The element is used to • describe how 'fragile personalities' is associated with the illustration.	The response clearly identifies TWO elements. Each of these elements is used to do any one of the following • describe how 'fragile' is associated with the illustration *OR* • describe how 'personality' is associated with the illustration *OR* • suggest how 'fragile personalities' is associated with the illustration.	The response clearly identifies ONE element. This element is used to do any one of the following • describe how 'fragile' is associated with the illustration *OR* • describe how 'personality' is associated with the illustration *OR* • suggest how 'fragile personalities' is associated with the illustration.	Response is unintelligible or does not satisfy the requirements for any other grade. **O** No response has been made at any time.

Model Response:

The idea of fragile personalities may be associated with this image due to its use of mirrors on heads. The face and head is the main source of one's personality. Mirrors, which are very easily broken and fragile, have been used in place of the faces of the two figures. Continuing this reading of personality the mirrors also allow the figures to shield their uncertainty from the world as they reflect others in order to conform to society.

Notes:

1. 'Fragile' may be understood by considering notions such as easily broken/shattered/damaged, delicate, brittle, frail, insubstantial, unstable, unsteady, weak, vulnerable, not resilient, uncertain, insecure, easily swayed/changed, defensive, unsure.

2. 'Personality' may be understood by considering notions such as the mental/emotional/social characteristics of an individual, personal identity, quality of being a person, sense of self, ego, being famous, having status, being a celebrity or leader, being unique/different.

3. For the purposes of this marking scheme an element is understood to be an element of the illustration within Item 3.

4. To 'describe how', the response must clarify, i.e. no gaps need to be filled by the reader in order to fully understand.
To 'suggest how', the response must present enough information to provide the gist, gaps are filled by the reader to 'get' what is meant.

5. An A-grade response may either:

   • use two elements separately to describe how two different interpretations of 'fragile personalities' are associated with the illustration

   or

   • use two elements together to describe how one interpretation of 'fragile personalities' is associated with the illustration.

6. Where more elements than required are used in a response, e.g. three elements are used, read the whole response and give the best grade for which the response is eligible.

7. A creditable response is not inconsistent with a reasonable reading of the illustration and reasonable interpretation/s of 'fragile', 'personality', 'fragile personalities'.

Item 4
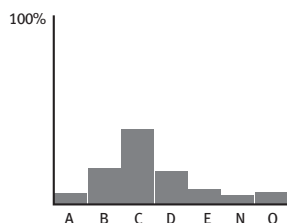
Item 4 is a five-star item that tested achievement in CCEs 41 *Hypothesising*, 29 *Comparing,* 31 *Interrelating ideas* ... and 27 *Expounding a viewpoint*.

This item required students to study the illustrations on two cards, looking for connections between the illustrations. They needed to come up with an idea based on those connections. Students had to elaborate on three connections the illustrations on the cards had with each other. The cue directed students to state their idea and refer to both illustrations in their response.

An A-grade response needed to use both cards and provide three connections. It also needed to state the idea, provide details about both illustrations for each of the three connections and recognise symbolism. The three connections needed to work together to support the one idea.

In some responses there was no elaboration of the connections, i.e. not enough detail about the parts of the cards and what they symbolised. Some responses did not recognise the important distinction between 'connection' and 'idea' as detailed in the introductory information. This misconception resulted in some responses elaborating on many isolated connections and ideas between the illustrations, rather than using connections together to support one idea.

Students should, for each item, read the introduction and stem carefully. Making notes or highlighting key information might be helpful. In this item, the word 'elaborate' meant that the connections had to be fully explained with supporting details for each of the connections.

Model response

State your idea.
Refer to both illustrations.

The two illustrations are associated with the idea that all civilisations will inevitably fall.

The first connection between the two is the ancient systems being shown. On card A it is the Ancient Grecian style building and on card B it is a typical monarchy with kings and queens. This links to the main idea by showing classical systems that are rarely in use in modern times.

The second connection is the instability of the structures. Card A shows an hourglass, clearly showing an inevitable destruction. To further this the buildings are made of sand, showing that they might collapse at any moment. Card B demonstrates similar ideas with a house of cards that could easily fall over or be destroyed. This supports the idea of the instability of civilisations, that they have no strong grounding.

The third connection is an omen of destruction evident in the bottom of the illustrations. In card A this is a crack on the bottom of the hourglass slowly letting the sand leak out. On card B this is shown by a cunning Jack who appears to be plotting something devious. These show the idea that civilisations are often brought down from below by things that inconspicuously leach away at the foundations of society.

Marking Scheme

UNIT THREE ITEM 4

PERFORMANCE DOMAIN		
41 Hypothesising	29 Comparing	
31 Interrelating ideas …	27 Expounding a viewpoint	

A	B	C	D	E	N
The response uses both cards and • provides THREE connections • states *the* idea • provides details about both illustrations for each of the three connections • recognises symbolism. The THREE connections work together to support *the one idea*	The response uses both cards and • provides TWO connections • suggests *an* idea • provides details about both illustrations for each of the two connections • recognises symbolism. The TWO connections work together to support the suggested idea.	The response uses both cards and • provides ONE connection • suggests *an* idea • provides details about both illustrations for that connection • recognises symbolism. The connection supports the suggested idea.	The response uses both cards and • provides TWO connections • suggests appropriate idea/s • suggests how each of the connections has relevance to the idea/s. — OR — The response, for one card, • states an idea • provides details to show how two elements of the illustration relate that card to the idea.	The response uses both cards and • provides ONE connection • suggests appropriate idea • suggests how the connection has relevance to the idea. — OR — The response, for one card, • states an idea • provides details to show how one element of the illustration relates that card to the idea.	Response is unintelligible or does not satisfy the requirements for any other grade.

O
No response has been made at any time.

Model Response:

The two illustrations are associated with the idea that all civilisations will inevitably fall.

The first connection between the two is the ancient systems being shown. On card A it is the Ancient Grecian style building and on card B it is a typical monarchy with kings and queens. This links to the main idea by showing classical systems that are rarely in use in modern times.

The second connection is the instability of the structures. Card A shows an hourglass, clearly showing an inevitable destruction. To further this the buildings are made of sand, showing that they might collapse at any moment. Card B demonstrates similar ideas with a house of cards that could easily fall over or be destroyed. This supports the idea of the instability of civilisations, that they have no strong grounding. In card A this a crack on the bottom of the hourglass slowly letting the sand leak out. On card B this is shown by a cunning Jack who appears to be plotting something devious. These show the idea that civilisations are often brought down from below by things that inconspicuously leach away at the foundations of society.

The third connection is an omen of destruction evident in the bottom of the illustrations …

Notes:

1. A connection is a link between Card A and Card B.

2. For the A-grade only *the* stated idea cannot be fragile/fragility, personalities, fragile personalities, escapism/escape.

3. For the purposes of this marking scheme, symbolism is the use of something from card A and/or card B to convey extra meaning.

4. Suggests means the response presents enough information/evidence to provide the gist, gaps are filled by the reader to 'get' what is meant.

Unit Four

The items in this unit are based on different methods for lacing shoes.

The following table shows the percentage of responses awarded the various grades for the items in this unit.

	A	B	C	D	E	N	O
Item 5	1.4	32.7	39.8	14.0		11.0	1.1
Item 6	5.2	22.3	25.8	22.5	17.7	3.7	2.8
A shaded box indicates that the grade was not available for that item.							

Item 5

Commentary
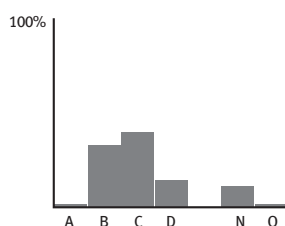
Item 5 is a three-star item that tested achievement in CCEs 51 *Identifying shapes in two and three dimensions*, 29 *Comparing*, 17 *Estimating numerical magnitude* and *32 Deducing*.

This item comprised two parts. In part I, students were required to circle number/s to show which lacing diagrams matched three different scenarios. In part II, students had to demonstrate and explain which of two lacing methods would require more lace. This was to be done without measuring. The cue directed students to refer to features of both lacing diagrams.

An A-grade response for part I needed to have the correct response to each of the three scenarios; in part II, a correct comparative statement and correct reasoning to support the statement needed to be provided.

Some responses did not give specific enough information about the nature of the difference in the two lacing methods, i.e. they have the same features except for one diagram having two diagonal sections and the other having two vertical sections. Some responses also stated that diagonals were longer than verticals but did not refer to a right-angled triangle or a rectangle to confirm the statement.

Students should carefully consider whether their explanation fully establishes the validity of their reasoning. Nothing is 'obviously' or 'clearly' longer, brighter, sharper unless the argument in words, numbers or diagrams makes it so.

Model response

I. For each of (a), (b) and (c), indicate which lacing method/s match the description given. Circle the relevant figure number/s. (Figure 1 is not included as it has been labelled.)

   (a) The lacing method/s in which all three of diagonal, horizontal and vertical sections of lace are used.

<div align="center">2   3   4   (5)   6   (7)</div>

   (b) The lacing method/s in which any vertical sections of lace are hidden from view.

<div align="center">2   3   4   5   6   (7)</div>

   (c) The lacing method/s **not** able to be used on a shoe with an odd number of eyelet pairs.

<div align="center">2   (3)   4   5   6   (7)</div>

II. The gap lacing method (Figure 1) and the display lacing method (Figure 2) are to be used to lace shoes that have the same number of eyelet pairs as in the lacing diagrams. The laces will be tightened so that the space between the eyelet flaps is the same for both methods.

Without measuring, clearly demonstrate and explain which of these two lacing methods would require more lace.

Refer to features of both lacing diagrams.

Figure 1 has 8 diagonal, 2 vertical and one horizontal lace sections.

Figure 2 has 10 diagonal and one horizontal lace sections. The difference between the two lacing methods is 2 diagonals to be compared with 2 vertical sections.

In a right-angled triangle, with horizontal, vertical and diagonal sides, the diagonal is always the longest. The two diagonals in Figure 2 are longer than the two verticals in Figure 1.

Therefore Figure 2, display lacing, requires more lace.

Marking Scheme

UNIT FOUR   ITEM 5

PERFORMANCE DOMAIN		
51 Identifying shapes in two and three dimensions	29	Comparing
17 Estimating numerical magnitude	32	Deducing

A	B	C	D	N
The response provides **for part I** • correct answers for all THREE of (a)(b)(c) **for part II** • a correct comparative statement • full reasoning to support the comparative statement. The reasoning provided does not depend on specific measurements.	The response provides **for part I** • correct answers for TWO of (a)(b)(c) **for part II** • a correct comparative statement • reasoning to support the comparative statement. The reasoning provided does not depend on specific measurements.	The response provides **for part I** • correct answers for all THREE of (a)(b)(c). —— OR —— The response provides **for part I** • correct answer for ONE of (a)(b)(c) **for part II** • a correct comparative statement • identifies the difference between the lacing methods. —— OR —— The response provides **for part II** • a correct comparative statement • reasoning to support the comparative statement.	The response provides **for part I** • correct answers for TWO of (a)(b)(c). —— OR —— The response provides **for part I** • correct answer for ONE of (a)(b)(c) **for part II** • a correct comparative statement.	Response is unintelligible or does not satisfy the requirements for any other grade.

O
No response has been made at any time.

Notes:

1. Reasoning to support the correct comparative statement must identify that the difference between the lacing methods is that the display lacing (Figure 2) has two diagonals where the gap lacing (Figure 1) has two verticals and the diagonals are longer than the verticals.

2. For an A-grade, full reasoning to support the correct comparative statement must be 'reasoning' that also uses the properties of a right-angled triangle or rectangle to confirm that a diagonal is longer than a vertical.

Model Response:

I.

(a)	2	3	4	(5)	6	(7)
(b)	2	3	4	5	6	(7)
(c)	2	(3)	4	5	6	(7)

II.

Figure 1 has 8 diagonal, 2 vertical and one horizontal lace sections. Figure 2 has 10 diagonal and one horizontal lace sections. The difference between the two lacing methods is 2 diagonals to be compared with 2 vertical sections.
In a right-angled triangle, with horizontal, vertical and diagonal sides, the diagonal is always the longest. The two diagonals in Figure 2 are longer than the two verticals in Figure 1. Therefore Figure 2, display lacing, requires more lace.

Item 6

Commentary

Item 6 is a four-star item that tested achievement in CCEs 7 *Translating one form to another*, 37 *Applying a progression of steps to achieve the required answer*, 49 *Perceiving patterns* and *60 Sketching and drawing*.

In this item, part I required students to interpret written instructions presented in a series of steps and to represent these on a lacing diagram provided for them. The cue directed students to use pencils and details similar to those in the lacing diagrams provided. Part II of the item required students to study a diagram of a lacing method and to write concise instructions for how to create it using structure and language consistent with the lacing instructions given in part I of the item. The cue directed students to use 'repeat step …' where possible and to use written instructions only.

An A-grade response for part I needed to provide a lacing diagram showing all fifteen identified features of the lacing method with no additional lace sections. There had to be no additional annotation on the diagram. For part II, the response needed to provide stand-alone instructions that described all ten features of the lacing method and to show correct use of 'repeat step …' at least once. The response had to use structure and language consistent with the instructions given in part I.

For part I, some responses showed diagrams where the lacing began at the top eyelet pair. A statement in the introduction indicated that all lacing methods begin at the bottom eyelet pair and that the path of the lace is always upwards. The part of the cue that required the use of details similar to the lacing diagrams given was not attended to correctly, with some responses using continuous lines or full colour to represent both visible and hidden lace sections on the diagram.

For part II, the instructions for correct positioning of the laces in the diagonal sections — lace A over lace B — and the instructions for threading the lace through the eyelets either up or down were not made clear or were given incorrectly.

Students should read the stem and cue/s of an item carefully, preferably more than once, to identify what they are being asked to do, the information they have been given and its relevance to the problem before beginning the response. Students should remember to read their response and check that it makes sense.

Model response

I. Draw, on the lacing diagram provided, the path of the lace for the lacing method described by the instructions. Do not annotate the diagram further.

step 1.   Thread lace end A down through the bottom eyelet on the appropriate side and lace end B down through the bottom eyelet on the other side.

step 2.   Using lace end A, run it vertically underneath eyelet flap so it is hidden from view. Thread it up through the top-most eyelet on the same side.

step 3.   Using lace end B, run it vertically underneath eyelet flap so it is hidden from view. Thread it up through the very next eyelet.

step 4.   Run the lace end horizontally to the eyelet across from it. Thread the lace end down through the eyelet.

step 5.   Repeat steps 3 and 4 until the lace end is threaded up through a top-most eyelet.

Use pencil/s.

Your diagram should use details similar to those in the lacing diagrams given.
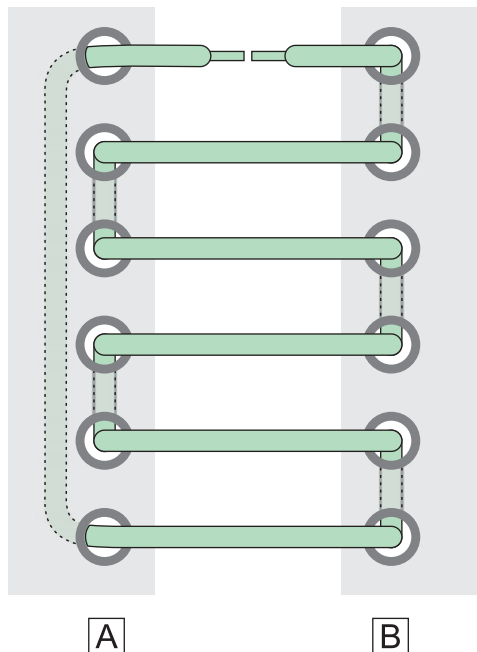
II. Look carefully at the lacing diagram below and consider the path of the lace.

Write a set of **concise** instructions to describe the lacing method shown in the diagram. Use structure and language consistent with the instructions on the opposite page. Do not refer to colours or annotate the diagram further.

Use 'repeat step …' where possible.

Present only written instructions. Do not supplement with any sketches or arrows.
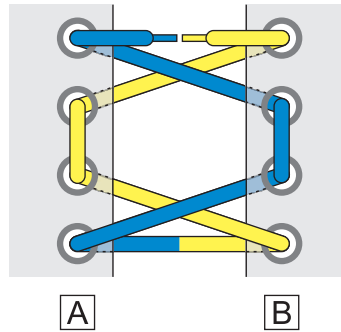
A   B

Step 1.   Thread lace end A up through the bottom eyelet on the appropriate side and lace end B up through the bottom eyelet on the other side.

Step 2.   Using lace end B run it diagonally underneath the eyelet flap. Thread it up through next available eyelet on the other side.

Step 3.   Repeat step 2 using lace end A.

Step 4.   Using lace end B, run it vertically over the eyelet flap so that it is visible. Thread it down through the very next eyelet.

Step 5.   Repeat step 4 using lace end A.

Step 6.   Repeat steps 2 and 3.

UNIT FOUR   ITEM 6

Marking Scheme

PERFORMANCE DOMAIN		
49	Perceiving patterns	
7	Translating from one form to another	
37	Applying a progression of steps to achieve the required answer	60 Sketching/drawing

A	B	C	D	E	N
The response for part I • provides a lacing diagram that shows all FIFTEEN of the features of the lacing method • shows no additional lace sections • has no additional annotation on the diagram. for part II • provides stand-alone instructions that describe all TEN of the features of the lacing method • correctly uses 'repeat …' at least once • uses structure and language consistent with the instructions given in part I. No additional instructions are provided. 15* 10*	The response for part I • provides a lacing diagram that shows THIRTEEN of the features of the lacing method. for part II • provides stand-alone instructions that describe SEVEN of the features of the lacing method • correctly uses 'repeat …' at least once • uses some structure and language consistent with the instructions given in part I. 13 7*	The response for part I • provides a lacing diagram that shows ELEVEN of the features of the lacing method. for part II • provides instructions that describe FIVE of the features of the lacing method • uses some structure and language consistent with the instructions given in part I. 11 5* ——— OR ——— The response for part I • provides a lacing diagram that shows all FIFTEEN of the features of the lacing method No additional lace sections are shown. 15* – ——— OR ——— The response for part II • provides stand-alone instructions that describe all TEN the features of the lacing method • correctly uses 'repeat …' at least once • uses some structure and language consistent with the instructions given in part I. – 10*	The response for part I • provides a lacing diagram that shows NINE of the features of the lacing method. 9 – ——— OR ——— The response for part II • provides instructions that describe FIVE of the features of the lacing method • uses some structure and language consistent with the instructions given in part I. – 5*	The response for part I • provides a lacing diagram that shows SEVEN of the features of the lacing method. 7 – ——— OR ——— The response for part II • provides instructions that describe FOUR of the features of the lacing method. – 4 ——— OR ——— The response for part II • provides lacing instructions • uses some structure and language consistent with the instructions given in part I.	Response is unintelligible or does not satisfy the requirements for any other grade. **O** No response has been made at any time.

UNIT FOUR   ITEM 6

Marking Scheme

Notes:

1. A lacing diagram shows visible lace sections as full colour and/or continuous lines and hidden lace sections as faded colour and/or dotted lines or similar.

2. The required features of the lacing method in part I are:

   a.   5 visible single lace horizontals between the bottom five eyelet pairs

   b.   5 hidden single lace vertical sections appropriately placed

   c.   1 hidden lace section from the bottom eyelet to the top eyelet on side A

   d.   2 lace ends one from each top eyelet

   e.   no lace shown between second bottom and third bottom eyelets on Side B

   f.   no lace shown between second top and third top eyelets on Side B.

3. Stand-alone instructions do not refer to colour or any added annotations.

4. The required features of the lacing method in part II are:

   i.   the lace has a horizontal section between the bottom eyelets

   ii.   the lace comes up through the bottom eyelets

   iii.   the lace has diagonals between the bottom two eyelet pairs

   iv.   the diagonal from lace end A is on top of the diagonal from lace end B

   v.   the lace comes up through the second bottom eyelets

   vi.   the lace has visible vertical sections between the second and third bottom eyelets

   vii.   the lace goes down through the third bottom eyelets

   viii.   the lace has diagonals between the top two eyelets

   ix.   the diagonal from lace end A is on top of the diagonal from lace end B

   x.   the lace comes up through the top eyelets.

5. 'Structure and language consistent with the instructions given in part I' uses steps and terms such as 'thread', 'run the lace', 'eyelet', 'eyelet flap' and 'lace end'. Using another word for terms modelled in the instructions in part I would mean the response at best could have 'some structure and language consistent with the instructions given in part I'.

Model Response:

I.

A   B
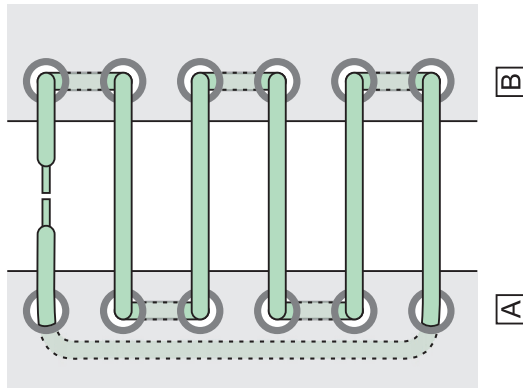
II.

Step 1. Thread lace end A up through the bottom eyelet on the appropriate side and lace end B up through the bottom eyelet on the other side.

Step 2. Using lace end B run it diagonally underneath the eyelet flap. Thread it up through next available eyelet on the other side.

Step 3. Repeat step 2 using lace end A.

Step 4. Using lace end B, run it vertically over the eyelet flap so that it is visible. Thread it down through the very next eyelet.

Step 5. Repeat step 4 using lace end A.

Step 6. Repeat steps 2 and 3.

Unit Five

The item in this unit is based on the poem *Follower*.

The following table shows the percentage of responses awarded the various grades for the item in this unit.

	A	B	C	D	E	N	O
Item 7	1.6	9.5	44.2	21.7	11.6	4.4	7.0
	A shaded box indicates that the grade was not available for that item.						

Item 7

Commentary
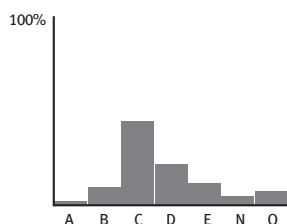
Item 7 is a four-star item that tested achievement in CCEs 43 *Analysing*, 31 *Interrelating … themes* and 28 *Empathising*.

This item required students to explore the sentiments expressed by the given quotations and describe how those sentiments were conveyed throughout the poem. The introduction to this item informed students that the two quotations focused on relationships between adult children and their fathers. The cue directed students to support their response with specific references to the poem and to the quotations.

An A-grade response needed, for each of the two quotations, to identify a sentiment based on a relationship between a parent and their adult-child, support the sentiment with direct reference to the quotation and then use a non-literal interpretation to explain how the sentiment was communicated throughout the poem. The response had to be consistent with a reasonable reading of the poem and plausible interpretations of the quotations. No contradictory statements could be in the response.

Responses that referred to both quotations without using specific direct reference to support the sentiments, or that referred to the poem without quoting parts of the poem to explain how the sentiment was communicated, could not achieve the highest grade.

In items such as this, students need to ensure they go beyond the literal interpretation of the stimulus pieces. In this case, the focus needed to be on the relationship between a son and his father rather than the literal interpretation of the poem, which told of the father's skill as a ploughman.

Model response

Explore the sentiments expressed by the quotations and describe how these sentiments are conveyed throughout the poem.

Support your response with specific references to the poem and to the quotations.

Quotation A is about the admiration a son has for his father. The son wants to be like him, when he says, 'I'm worried that I'm not'. This is explored in the poem in the description of the father at work. 'His shoulders globed like a full sail strung' is about the father's physical and inner strength. He is 'an expert' not only at ploughing but also as a Dad because he was a caring, gentle father who when the son 'stumbled' carried his son 'on his back'. This is less about ploughing and more about their relationship. It is clear as an adult the son still admires his father, wanting to have the same strong character and life values as his Dad.

Quotation B refers to the bittersweet journey that begins with a father looking after a son and ends with the son caring for his father. The son recalls how he was a 'nuisance, tripping, falling'. The poem highlights the devotion in the way the father dealt with his son's failings. This is described in Quote B as when 'a father gives to his son'. In his old age, the father has become the person 'who keeps stumbling' and the son is now left to look after the once strong father he admired so much. The words 'when a son gives to his father, both cry' create an overwhelming feeling of sadness and regret as the relationship has completely reversed with the father depending on his grown-up son.

UNIT FIVE   ITEM 7   Marking Scheme

PERFORMANCE DOMAIN	43	Analysing	31	Interrelating … themes …
	28	Empathising		

A	B	C	D	E	N
The response **for each of TWO quotations** • identifies a sentiment based on a parent and adult–child relationship • supports this sentiment with direct reference to the quotation • uses, with direct reference to parts of the poem, a non-literal interpretation to explain how this sentiment is communicated within the poem • is consistent with a reasonable reading of the poem and a plausible interpretation of the quotation. There are no contradictory statements in the response.	The response **for ONE quotation** • identifies a sentiment based on a parent and adult–child relationship • supports this sentiment with direct reference to the quotation • uses, with direct reference to part of the poem, a non-literal interpretation to explain how this sentiment is communicated within the poem • is consistent with a reasonable reading of the poem and a plausible interpretation of this quotation. **AND** for the **OTHER quotation**, • identifies a sentiment • links the sentiment to the poem by citing part of the poem • is consistent with a reasonable reading of the poem and a plausible interpretation of this quotation.	The response **for ONE quotation** • identifies a sentiment based on a parent and adult–child relationship • supports this sentiment with direct reference to the quotation • uses, with direct reference to part of the poem, a non-literal interpretation to explain how this sentiment is communicated within the poem • is consistent with a reasonable reading of the poem and a plausible interpretation of this quotation. ——— OR ——— The response **for each of TWO quotations** • identifies a sentiment • links the sentiment to the poem by citing part of the poem • is consistent with a reasonable reading of the poem and a plausible interpretation of the quotation.	The response **for each of TWO quotations** • gives an interpretation of the quotation • relates the interpretation to part of the poem.	The response **for ONE quotation** • gives an interpretation of the quotation • relates the interpretation to part of the poem. ——— OR ——— The response identifies a sentiment and relates it to part of the poem.	Response is unintelligible or does not satisfy the requirements for any other grade. **O** No response has been made at any time.

Model Response:

Quotation A is about the admiration a son has for his father. The son wants to be like him, when he says, 'I'm worried that I'm not'. This is explored in the poem in the description of the father at work. 'His shoulders globed like a full sail strung' is about the father's physical and inner strength. He is 'an expert' not only at ploughing but also as a Dad because he was a caring, gentle father who when the son 'stumbled' carried his son 'on his back'. This is less about ploughing and more about their relationship. It is clear as an adult the son still admires his father, wanting to have the same strong character and life values as his Dad.

Quotation B refers to the bittersweet journey that begins with a father looking after a son and ends with the son caring for his father. The son recalls how he was a 'nuisance, tripping, falling'. The poem highlights the devotion in the way the father dealt with his son's failings. This is described in Quote B as when 'a father gives to his son'. In his old age, the father has become the person 'who keeps stumbling' and the son is now left to look after the once strong father he admired so much. The words 'when a son gives to his father, both cry' create an overwhelming feeling of sadness and regret as the relationship has completely reversed with the father depending on his grown-up son.

Notes:

1. A **sentiment** is a thought or feeling intended to be conveyed by words as distinguished from the words themselves.

2. To make '**direct reference**', a response must provide a word or words from the quotation/poem.

3. To '**cite**' means that a response indicates an extract or other part of the poem.

4. An **interpretation** is the way in which the poem and/or quotations can be read.

Unit Six

The items in this unit are based on a contour map of Antarctica and data from the station at Vostok.

The following table shows the percentage of responses awarded the various grades for the items in this unit.

	A	B	C	D	E	N	O
Item 8	24.0	4.2	60.4			8.9	2.5
Item 9	7.7	13.3	19.0	32.8		21.4	5.8
A shaded box indicates that the grade was not available for that item.							

Item 8

Commentary
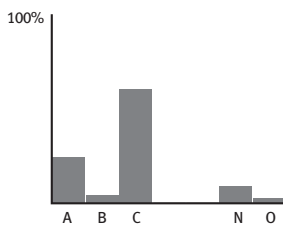
Item 8 is a two-star item that tested achievement in CCEs 16 *Calculating with or without calculators* and 29 *Comparing*.

This item required students to consider temperatures recorded at Vostok, a Russian research station in Antarctica. A table showed the mean daily temperature for each month of the year as well as the average daily range between minimum and maximum temperatures for each month. In part I, students were required to state Vostok's warmest month and its coldest month. In part II, students had to estimate the average daily minimum and average daily maximum temperatures for the month of March.

An A-grade response needed to give, for part I, December as the warmest month and August as the coldest month and, for part II, −63.1 as the average daily minimum and −52.3 as the average daily maximum for March. The response could not include any incorrect working.

Some responses indicated little understanding of negative values and gave the lower number as the maximum temperature and the higher number as the minimum temperature.

In this item, values belonging to a month other than March were sometimes used in the response. Students should ensure that they select the correct information from a table.

Model response

> I. Based on the average mean temperatures listed in the table, state Vostok's warmest month and its coldest month.
>
> Warmest: ...December... Coldest: ...August...
>
> II. Estimate the average daily minimum and the average daily maximum temperatures for the month of March.
>
> $$\text{min } -57 - \frac{10.6}{2} \qquad \text{max } -57 + \frac{10.6}{2}$$
>
> $$= -63.1 \qquad\qquad = -52.5$$
>
> Average daily minimum: ...−63.1... Average daily maximum: ...−52.5...

UNIT SIX   ITEM 8

Marking Scheme

PERFORMANCE DOMAIN   16 **Calculating with or without calculators**   29 **Comparing**

A	B	C	N
The response provides for part I • warmest month is December (-31.8) • coldest month is August (-67.9) for part II • -63.1° as average daily minimum for March • -52.5° as average daily maximum for March. No incorrect working is provided.	The response provides for part I either • warmest month is December (-31.8) OR • coldest month is August (-67.9) for part II • -63.1° as average daily minimum for March • -52.5° as average daily maximum for March. No incorrect working is provided.	The response provides for part I • warmest month is December (-31.8) • coldest month is August (-67.9) ——OR—— The response provides for part II, allowing for at most one observable minor error and consequentially correct values, • an average daily minimum for March • an average daily maximum for March. ——OR—— The response provides for part II • -68.4° as average daily minimum for March • -47.2° as average daily maximum for March.	Response is unintelligible or does not satisfy the requirements for any other grade. **O** No response has been made at any time.

Notes:

1. An observable minor error is a transcription error, table reading error or an incorrect result to a correctly stated operation.

2. Using a positive average mean temperature is a serious error, not an observable minor error.

3. Omitting the step of dividing the range by 2 is a serious error, not an observable minor error.

Model Response:

I

Warmest: December Coldest: August

II

Average daily minimum: -63.1 Average daily maximum: -52.5

Item 9

Commentary

Item 9 is a three-star item that tested achievement in CCEs 44 *Synthesising*, 37 *Applying a progression of steps to achieve the required answer*, 52 *Searching and locating…information* and 57 *Manipulating/operating/using equipment*.

This item comprised two parts. In part I, students were required to interpret a contour map to determine the altitude of various research stations. Some stations were located exactly on a contour line and so required a specific altitude, while others were located between contour lines and required a response within a 500 m range as modelled in the table. In part II, students were required to shade areas to demonstrate the possible location for a new research station, taking into account restrictions for altitude and distance from supply stations, and then restrictions for the distance the new station could be located from emergency response stations.

The examples given in the table in part I served as a model for how to express both exact altitudes and a range of altitudes. The cue in part II instructed students to use pencil and show all lines pertinent to their decisions. They had to clearly indicate the different areas using a legend.

An A-grade response needed to contain five correct entries in the table in part I. In part II, the response needed to indicate, within allowable tolerances, a Davis-arc and shading in the area between the 3500 m contour line and the Davis-arc, a Mirny-arc and shading between the 3500 m contour line and the Mirny-arc. (A Davis-arc refers to an arc drawn on the map 30 mm away (as per the scale given on the map) from the middle of the X that indicates the Davis supply station. A Mirny-arc refers to an arc drawn 24 mm from the middle of the X that indicates the Mirny emergency-response station.) Arcs had to be drawn so they crossed or touched each relevant part of the 3500 m contour line. Different shading had to be used for the areas and a legend needed to be provided to clearly indicate the different areas.

For part II it was expected that a drawing compass would be used for the arcs to indicate a constant distance from a point. This would have been the most accurate and least time consuming method to use.

Students should make use of any modelling given in an item to assist with their responses. In part I, an exact altitude and a range of altitudes were given in the table as an indicator of how to respond. Giving an estimate of altitude rather than a range does not show understanding of contour lines. Students should remember to read instructions carefully and to follow all directions. In part II of this item, not indicating the significance of the different areas with a legend excluded a response from achieving the highest grade.

Model response

I. For each station listed below, determine the altitude at which the station is located or the altitudes between which the station is located according to the map in Figure 1.
Complete the table below.

station	altitude information
Kohnen	2500–3000 m
Belgrano II	*0–500*
South Pole	*2500–3000*
Vostok	*3500*
Byrd	*1500*
Concordia	*3000–3500*
McMurdo	0 m (at sea level)

II.   On Figure 2, shade the area inside which the new research station could be located according to the altitude and supply-stations requirements. Next, indicate clearly, by further distinct shading, the area within which the new station could be located taking into account the emergency-response restriction.

Use pencil and show all lines pertinent to your decisions. Clearly indicate the different areas using a legend.
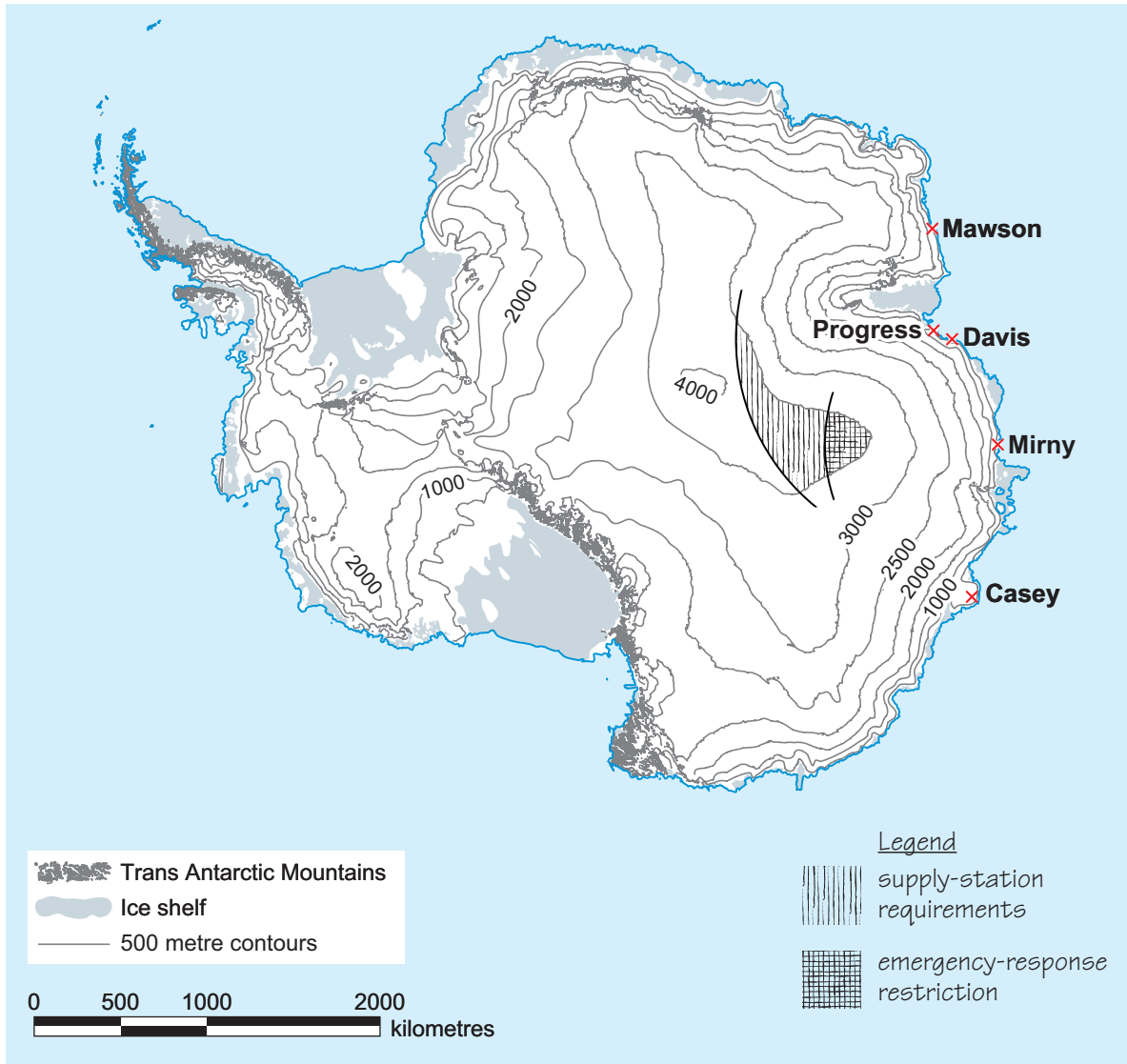
Figure 2

Marking Scheme

UNIT SIX   ITEM 9

PERFORMANCE DOMAIN

44	Synthesising
52	Searching and locating … information
37	Applying a progression of steps to achieve the required answer
57	Manipulating/operating/using equipment

A

The response

for part I
- includes the five correct entries

for part II, within allowable tolerances,
- indicates a Davis-arc
- has shading in the area between the 3500m contour line and the Davis-arc
- indicates a Mirny-arc
- has shading in the area between the 3500m contour line and the Mirny-arc.

A legend makes clear what each of the shaded areas is referencing.

Belgrano II	0–500
South Pole	2500–3000
Vostok	3500
Byrd	1500
Concordia	3000–3500

B

The response

for part I
- includes four correct entries

for part II, within allowable tolerances,
- indicates either
  – a Davis-arc
  OR
  – a Progress-arc
- has shading in the area between the 3500m contour line and the arc drawn
- indicates a Mirny-arc
- has shading in the area between the 3500m contour line and the Mirny-arc.

Each area is shaded differently.

C

The response

for part I
- includes three correct entries

for part II, within allowable tolerances, indicates one of the following
- a Davis-arc
OR
- a Progress-arc
OR
- a Mirny-arc.

——— OR ———

The response

for part II, within allowable tolerances,
- indicates either
  – a Davis-arc
  OR
  – a Progress-arc
- has shading in the area between the 3500m contour line and the arc drawn
- indicates a Mirny-arc
- has shading in the area between the 3500m contour line and the Mirny-arc.

Each area is shaded differently.

D

The response

for part I
- includes three correct entries.

——— OR ———

The response

for part II, within allowable tolerances, indicates one of the following
- a Davis-arc
OR
- a Progress-arc
OR
- a Mirny-arc.

N

Response is unintelligible or does not satisfy the requirements for any other grade.

O

No response has been made at any time.

UNIT SIX   ITEM 9

Marking Scheme

Model Response:

I.

station	altitude information
Kohnen	2500–3000 m
Belgrano II	*0–500*
South Pole	*2500–3000*
Vostok	*3500*
Byrd	*1500*
Concordia	*3000–3500*
McMurdo	0 m (at sea level)

II.

Legend

supply-station requirements

emergency-response restriction

Trans Antarctic Mountains

Ice shelf

500 metre contours

0   500   1000   2000
kilometres
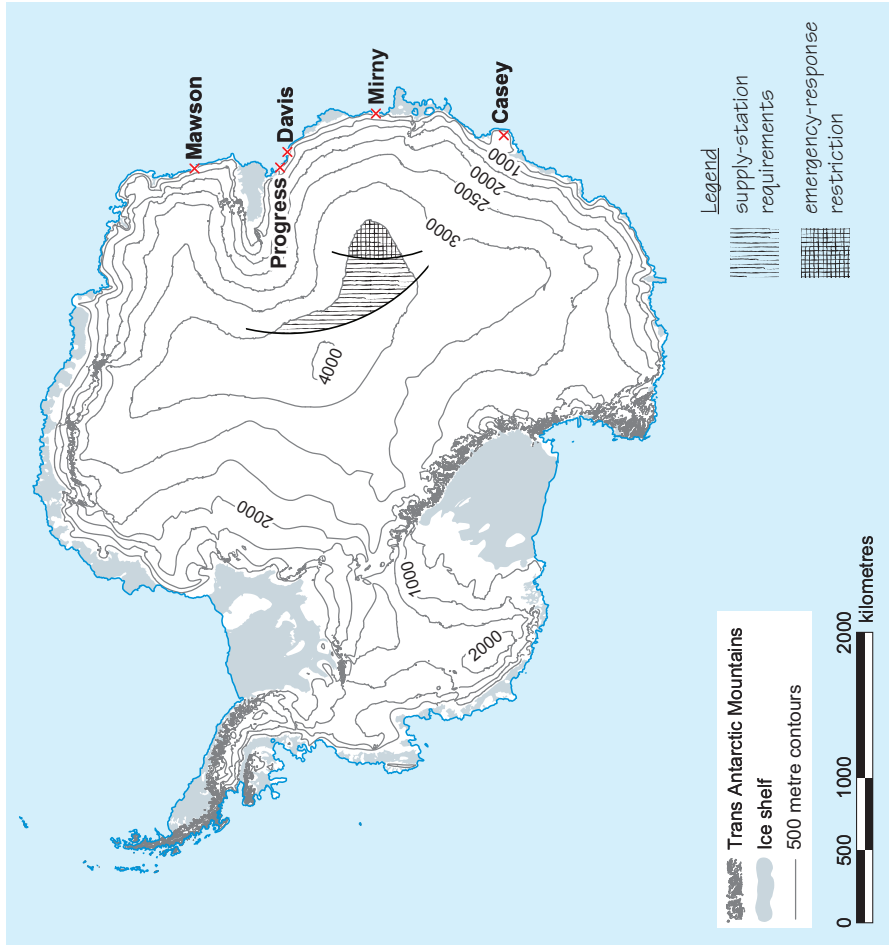
Unit Seven

The items in this unit are based on an extract from a novel.

The following table shows the percentage of responses awarded the various grades for the items in this unit.

	A	B	C	D	E	N	O
Item 10	16.8	18.5	33.3	18.9		8.1	4.5
Item 11	1.8	9.0	34.3	29.0	10.7	2.6	12.5
A shaded box indicates that the grade was not available for that item.

Item 10

Commentary

100%

A B C D E N O
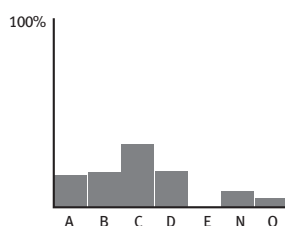
Item 10 is a three-star item that tested achievement in CCEs 26 *Explaining to others*, 48 *Justifying* and 43 *Analysing*.

This item required students to use evidence from the extract to make clear how an atmosphere of eeriness and unease was created. The cue directed students to deal with the contribution of each paragraph.

An A-grade response needed to include evidence from each paragraph and explain how each piece of evidence contributed to the establishment of the atmosphere.

Restating stimulus material — indicating *that* the evidence provided led to a feeling of eeriness and unease — does not contribute to the quality of a response. In this item the response needed to make clear *how* the atmosphere was created.

Students should read the stem and cues carefully so that all aspects of the task are addressed.

Model response

An atmosphere of eeriness and unease develops over the course of the extract. Using evidence from the extract, make clear how that atmosphere is created.

Be sure to deal with the contribution of each paragraph.

In the first paragraph, the fact that the key turns with a noise of 'long disuse' suggests that the castle is not often visited and so could be an unsafe place for the narrator. In the second paragraph, the 'quivering shadows' that are thrown from the lamp add to the atmosphere, since 'quivering' is usually associated with being scared or trembling. In the third paragraph, the old man does not move to physically greet the main character after beckoning him in, but instead '[stands] like a statue, as though his gesture of welcome [has] fixed him into stone'. This implies that gestures of goodwill are entirely unnatural for the old man, which might further suggest that he could be some sort of villain who may wish the narrator harm.

UNIT SEVEN   ITEM 10

Marking Scheme

PERFORMANCE DOMAIN	**26 Explaining to others**		**48 Justifying**
	43 Analysing		

A	B	C	D	N
The response	The response	The response	The response	Response is unintelligible or does not satisfy the requirements for any other grade.
• includes a relevant piece of evidence from each of the three paragraphs	• includes a relevant piece of evidence from each of the three paragraphs	• includes a relevant piece of evidence from two paragraphs	• explains how a relevant piece of evidence contributes to the establishment of the atmosphere.	
• explains how each piece of evidence contributes to the establishment of the atmosphere.	• explains how each of two of these pieces of evidence contributes to the establishment of the atmosphere	• explains how one of these pieces of evidence contributes to the establishment of the atmosphere		
The response is not inconsistent with a reasonable reading of the extract.	• suggests a relationship between the other piece of evidence and the atmosphere.	• suggests a relationship between the other piece of evidence and the atmosphere.	——— OR ———	
	The response is not inconsistent with a reasonable reading of the extract.	——— OR ———	The response	O
		The response	• includes a relevant piece of evidence from two paragraphs	No response has been made at any time.
		• includes a relevant piece of evidence from each of the three paragraphs	• suggests a relationship between each piece of evidence and the atmosphere.	
		• suggests a relationship between each piece of evidence and the atmosphere.		

Notes:

1. The atmosphere is one of eeriness and unease — as stated in the item.

2. The atmosphere is considered to be 'felt' only by the main character (the narrator) and/or the reader. Explanations which suggest that the old man feels a sense of eeriness/unease are not consistent with a reasonable reading of the extract.

3. Responses do not need to make specific mention of the atmosphere, i.e. eeriness and unease, for every piece of evidence.

4. A piece of evidence can be given as a quote or; if the reference is clear and unambiguous, through citing line number/s or by paraphrasing.

Model Response:

In the first paragraph, the fact that the key turns with a noise of 'long disuse' suggests that the castle is not often visited and so could be an unsafe place for the narrator. In the second paragraph, the 'quivering shadows' that are thrown from the lamp add to the atmosphere, since 'quivering' is usually associated with being scared or trembling. In the third paragraph, the old man does not move to physically greet the main character after beckoning him in, but instead '[stands] like a statue, as though his gesture of welcome [has] fixed him into stone'. This implies that gestures of goodwill are entirely unnatural for the old man, which might further suggest that he could be some sort of villain who may wish the narrator harm.

Item 11

Commentary
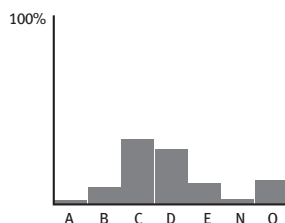
Item 11 is a four-star item that tested achievement in CCEs 21 S*tructuring … extended written text*, 50 *Visualising*, 10 *Using vocabulary appropriate to a context* and 28 *Empathising*.

This item required students to continue on from the extract, writing a paragraph giving specific details of the courtyard and of the old man. The paragraph had to be in keeping with the style, atmosphere and characters of the extract. The cue directed students to use vocabulary to effect and not to use direct speech or introduce any new characters.

An A-grade response needed to provide a well-crafted paragraph that followed on from the extract; contributed effective description of the courtyard surrounds that was contextually relevant and conceivable; enhanced the portrayal of the old man in a manner consistent with the extract; evoked an atmosphere of eeriness or unease; was written in first person and past tense and used vocabulary to effect. The setting had to be at night and in the nineteenth century. The paragraph could contain no new characters or direct speech. Only minor lapses in the use of grammar, punctuation and spelling were acceptable.

Generally, responses provided a narrative including details that allowed a reader to visualise the setting and the old man. Some responses cited neglected gardens, disconcerting sounds and shadows in the courtyard. The old man quite commonly had a limp and his facial expressions (or lack thereof) created suspense, fear or trepidation. Some responses however, provided a description of only one of the courtyard or the old man. Such responses could not be awarded an A- or B-grade.

Students should remember that stems and cues provide important directions. In this item, a descriptive text of an indoor space would not be consistent with the instruction in the stem to set the narrative in a courtyard. The cue, which gave clear instructions not to use direct speech, was sometimes disregarded, which made responses containing direct speech ineligible for an A-grade.

Model response

Continue on from the extract by composing your version of the next paragraph. The paragraph should focus on the narrator's observations of his surroundings and of the old man from the time the narrator goes through the great door to just before they both enter the main building. The paragraph should be in keeping with the style, atmosphere and characters of the extract.

Use vocabulary to effect.

Do not use direct speech or introduce any new characters.

Cautiously, I looked around while the old man stared at me expectantly.

Under his scrutinising stare, not a single word came to my lips. His hands

twitched by his sides, then suddenly he seemed to remember himself, and

gave a smile that did not reach to his eyes, before beckoning me to follow him. The great grey

walls of the courtyard rose up like sleepy lions around me — I felt trapped. The old man's

heavy footfalls were the only sounds that punctuated the oppressive stale air. Time seemed

to inch by slowly between these big grey walls, and I was mesmerised by the man's swishing

black coat moving in slow motion. I smelt the mustiness of it all — no one, I'm certain no-one

had been here for quite some time. The tension was palpable - I had to drive my legs forward

consciously until we — a strange pair — arrived at two wooden doors, larger than the first,

standing guard. What was within?

UNIT SEVEN   ITEM 11

Marking Scheme

PERFORMANCE DOMAIN

21	Structuring … extended written text
10	Using vocabulary appropriate to a context
50	Visualising
28	Empathising

A

The response
- provides a well-crafted paragraph that follows on from the extract
- contributes effective description of the courtyard surrounds that is contextually relevant and conceivable
- enhances the portrayal of the old man in a manner consistent with the extract
- evokes an atmosphere of eeriness/unease
- adheres to all four parameters
- is written in first person and in past tense
- uses vocabulary to effect.

Any minor lapses in the use of grammar, punctuation or spelling do not detract from the readability of the response.

Note:

1. The four parameters are:
   - night time
   - set in the 19th century
   - no new characters
   - no direct speech.

B

The response
- follows on from the extract
- contributes description of the courtyard surrounds that is contextually relevant and conceivable
- adds to the portrayal of the old man in a manner consistent with the extract
- evokes an atmosphere of eeriness/unease
- adheres to all four parameters
- is written in first person and in past tense.

In the main, any lapses in the use of grammar, punctuation or spelling do not detract from the readability of the response.

——OR——

The response
- provides a well-crafted paragraph that follows on from the extract
- contributes effective description of the courtyard surrounds that is contextually relevant and conceivable
- adds to the portrayal of the old man in a manner consistent with the extract
- evokes an atmosphere of eeriness/unease
- adheres to the *first three* of the four parameters
- is written in first person and in past tense
- uses vocabulary to effect.

In the main, any minor lapses in the use of grammar, punctuation or spelling do not detract from the readability of the response.

C

The response
- contributes feasible descriptions of the surrounds
- adds to the portrayal of the old man
- conveys some sense of eeriness/unease
- adheres to three of the four parameters
- is written in first person and/or in past tense.

In the main, any lapses in the use of grammar, punctuation or spelling do not detract from the readability of the response.

——OR——

The response
- follows on from the extract

EITHER
- contributes effective description of the courtyard surrounds that is contextually relevant and conceivable

OR
- enhances the portrayal of the old man in a manner consistent with the extract
- evokes an atmosphere of eeriness/unease
- adheres to three of the four parameters
- is written in first person and in past tense.

In the main, any lapses in the use of grammar, punctuation or spelling do not detract from the readability of the response.

D

The response
EITHER
- contributes feasible description of the surrounds

OR
- adds to the portrayal of the old man
- alludes to an atmosphere of eeriness/unease
- is written in first person and/or in past tense.

E

The response contributes ideas about
EITHER
- the surrounds
OR
- the old man
OR
- an atmosphere of eeriness/unease
that mesh with the story.

N

Response is unintelligible or does not satisfy the requirements for any other grade.

O

No response has been made at any time.

UNIT SEVEN   ITEM 11

Marking Scheme

Notes:

1. See page 1.

2. The courtyard is the area between the great door and the entry to the main building (as indicated in the item).

    a. A response that is set in a room gives a description of 'surrounds' not 'courtyard surrounds'.

    b. A response in which the narrator and the old man enter the courtyard via an anteroom/vestibule is eligible for all grades.

    c. A response that describes a room through which the narrator and the old man walk, but then subsequently describes the courtyard, is eligible for any grade other than A-grade.

    d. A response that has the narrator describing the courtyard he goes through, then going inside the main building, is eligible for any grade other than A-grade.

Model Responses:

1. Cautiously, I looked around while the old man stared at me expectantly. Under his scrutinising stare, not a single word came to my lips. His hands twitched by his sides, then suddenly he seemed to remember himself, and gave a smile that did not reach to his eyes, before beckoning me to follow him. The great grey walls of the courtyard rose up like sleepy lions around me — I felt trapped. The old man's heavy footfalls were the only sounds that punctuated the oppressive stale air. Time seemed to inch by slowly between these big grey walls, and I was mesmerised by the man's swishing black coat moving in slow motion. I smelt the mustiness of it all — no one, I'm certain no-one had been here for quite some time. The tension was palpable - I had to drive my legs forward consciously until we — a strange pair — arrived at two wooden doors, larger than the first, standing guard. What was within?

2. The great door closed behind me, with a squeak of the hinges then a clang as the door reached the frame. I followed in his footsteps, comforted only by the light that flickered in his hand. I noticed he had a limp, all his fragile bones thudding to the left side as his right held strong. The courtyard walls — battered and bruised — were cracked and were hung with unkempt vines creating a display of grey and green. No-one tended this unloved garden. As we walked across the grass it crunched beneath us, like dry bones cracking. In the distance was a once tall and lively building, now drooping and fragile. Our path led us to it; the cracks in the wall growing larger as we approached the entrance.

Unit Eight

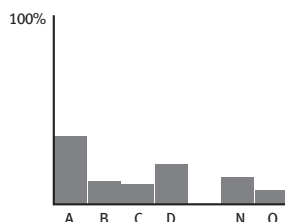The items in this unit are based on information about farming wheat.

The following table shows the percentage of responses awarded the various grades for the items in this unit.

	A	B	C	D	E	N	O
Item 12	35.9	11.7	10.5	20.9		14.0	7.0
Item 13	14.1	8.0	22.9	9.9	10.5	15.8	18.7
Item 14	31.9	3.7	13.0	10.9		21.6	18.9
A shaded box indicates that the grade was not available for that item.							

Item 12

Commentary

Item 12 is a three-star item that tested achievement in CCEs 17 *Estimating numerical magnitude*, 16 *Calculating with or without calculators* and 20 *Setting out/presenting/arranging/displaying*.

This item required students to estimate the number of wheat plants that could theoretically grow in one hectare of a field based on given data about row spacing and seed planting rate. The cue directed students to show all steps and to label steps to indicate what was being calculated.

An A-grade response needed to provide 800 000 as the number of wheat plants. The response needed to show evidence that consistent units were correctly used and valid operations were correctly executed. A clear indication of what was being calculated had to be provided. Incorrect working or invalid operations could not be used to obtain the number of wheat plants.

Some responses showed that converting units successfully was a difficult part of this item, e.g. 1 metre was often converted to 1000 centimetres instead of 100 centimetres. Another misuse of units occurred when attempts were made to combine length and area units, e.g. multiplying 14.2 seeds per metre by 10 000 square metres. The cue to provide labels to indicate what was being calculated was generally well followed.

Students should remember to convert units so that consistent units are used when completing operations. They should attend to all cues, as these are given to assist with producing a well-organised response.

Model response

> Estimate, to the nearest 100 000 plants, the number of wheat plants that theoretically could grow in each hectare of the field if the seeds were planted as described.
>
> Show all steps.
>
> Label steps to indicate what is being calculated.
>
> Number of plants in each row in a hectare = 14.2 x 100 = 1420
>
> Width of one hectare = 100 x 100 = 10 000 cm
>
> Number of rows in one hectare = $\frac{10\,000}{17.5}$ = 571.4 or approximately 571 rows
>
> Total number of plants in one hectare = 571 x 1420 = 810 820
>
> Theoretically, 800 000 plants could grow in one hectare.

Marking Scheme

UNIT EIGHT   ITEM 12

PERFORMANCE DOMAIN	17	Estimating numerical magnitude
	16	Calculating with or without calculators
	20	Setting out/presenting/arranging/displaying

A	B	C	D	N
The response • provides 800 000 as the estimate of number of plants • shows evidence of correctly using consistent units • shows correctly executed valid operations • clearly indicates what is being calculated. No incorrect working or invalid operations are used to obtain the number of plants.	**The response**, allowing for at most one observable minor error and consequentially correct values, • provides a reasonable number of plants • shows evidence of using consistent units • shows necessary, valid operations. No invalid operations are used to obtain the number of plants.	**The response shows** • the use of a valid operation to find a number of rows • evidence of one other valid operation using the number of seeds per metre.	**The response shows one of** • the use of a valid operation using the number of seeds per metre *OR* • the use of a valid operation using the distance between the rows.	Response is unintelligible or does not satisfy the requirements for any other grade.

O
No response has been made at any time.

Model Response:
(length-based method)

Number of plants in each row in a hectare = $14.2 \times 100 = 1420$

Width of one hectare = $100m \times 100 = 10\,000cm$

Number of rows in one hectare = $\dfrac{10\,000}{17.5}$ = 571.4 or approximately 571 rows

Total number of plants in one hectare = $571 \times 1420 = 810\,820$

Theoretically, 800 000 plants could grow in one hectare.

Model Response:
(area-based method)

Number of rows in 1 metre width = $\dfrac{1}{0.175}$ = 5.714

Number of seeds planted in 1 metre of row = 14.2

Number of seeds planted in $1\,m^2$ = 5.714×14.2 = 81.1388

Total area is 1 hectare = $10000\,m^2$

Number of seeds planted in 1 hectare = $81.1388 \times 10\,000 = 811\,388$

800 000 seeds could be planted.

Notes:

1. 'Seeds' and 'plants' are interchangeable in this item.

2. A valid operation is one that would be part of a solution if executed correctly.

3. Providing a rounded number of plants is a requirement for the A-grade only.

4. A reasonable number is one that could be sensibly rounded to the nearest 100 000, e.g. if the result was 250 this would not be considered a reasonable number. A value less than 50000 is not considered to be a reasonable number.

5. An observable minor error is an incorrect result to a correctly stated operation or a transcription error.

6. A conversion error or the omission of any necessary conversion/s, is a serious error, not an observable minor error.

Item 13

Commentary
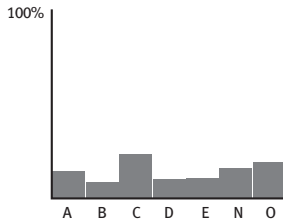
Item 13 is a four-star item that tested achievement in CCEs 32 *Reaching a conclusion which is necessarily true provided a given set of assumptions is true*, 37 *Applying a progression of steps to achieve the required answer* and 16 *Calculating with or without calculators*.

This item required students to determine how much seed, to the nearest kilogram, would have to be purchased to ensure that the desired number of productive wheat plants in each hectare would be achieved. The cue directed students to show all steps and to label steps to indicate what was being calculated.

An A-grade response needed to provide 58 or 59 as the number of kilograms of seed to be purchased per hectare. The response needed to clearly indicate what was being calculated in each step of a method that correctly used all six data pieces given in the stimulus material. Incorrect working or invalid operations could not be used to obtain the amount of seed.

Many responses indicated that correctly working with two percentages was the most difficult part of this item. Incorrect ways of using the 90% germination rate and the 70% production rate from germinated seed were evident in responses. 70% of 90% of a value is equivalent to 63% of the value.

The direction in the cue to provide labels to indicate what was being calculated was well followed, which was encouraging to see, as cues are intended to aid students in responding in the best way possible. In this item there were six data pieces that had to be used to provide the correct response, and by labelling each operation students were better able to manage their progress to the solution.

Model response

Calculate the amount of seed that must be purchased for each hectare of the fields that will be under wheat so the desired number of productive wheat plants will be achieved. Give the amount of seed to be purchased to the nearest kilogram.

Show all steps.

Label steps to indicate what is being calculated.

Number of seeds for 18 productive plants per metre of row is $= \dfrac{18}{0.9 \times 0.7}$

$= 28.57$ or 29

seeds to be purchased $550 \times 100 \times 29 = 1595\,000$

weight of seeds is $\dfrac{1595\,000}{27\,000} = 59.07$

Amount of seed needed is 59 kg.

UNIT EIGHT   ITEM 13

Marking Scheme

PERFORMANCE DOMAIN	**32**	Reaching a conclusion which is necessarily true provided a given set of assumptions is true
	37	Applying a progression of steps to achieve the required answer
	16	Calculating with or without calculators

A	B	C	D	E	N
The response • provides a method which determines 58 or 59 as the amount of seed to be purchased per ha • correctly uses ALL of the data pieces • clearly indicates what is being calculated. No incorrect information or working is used to obtain the amount of seed to be purchased.	The response, allowing for at most one observable minor error and consequentially correct values, • provides a method which determines the kg of seed to be purchased per ha • correctly uses FIVE of the data pieces.	The response shows evidence that FOUR of the data pieces have been used meaningfully.	The response shows evidence that THREE of the data pieces have been used meaningfully.	The response shows evidence that TWO of the data pieces have been used meaningfully.	Response is unintelligible or does not satisfy the requirements for any other grade.

O
No response has been made at any time.

Model Responses:

1. Number of seeds for 18 productive plants per metre of row is $\dfrac{18}{0.9 \times 0.7} = 28.57$ or 29

   seeds to be purchased $550 \times 100 \times 29 = 1595000$

   weight of seeds is $\dfrac{1595000}{27000} = 59.07$

   Amount of seed needed is 59 kg.

2. 18×100 m = 1800 plants per row

   1800×550 rows = 990000 productive wheat plants per hectare

   1 kg = 27000 seeds

   90% germinate = $0.9 \times 27000 = 24300$ seeds germinate per kg

   70% to become productive plants = $0.7 \times 24300 = 17010$ productive seeds per kg

   For 990000 productive seeds $\dfrac{990000}{17010} = 58.2$ therefore need to purchase 58 kg of seeds.

Notes:

1. The data pieces are:
   - 90% (percentage of seeds that will germinate)
   - 70% (percentage of germinated seeds that will become productive)
   - 18 (number of productive wheat plants required)
   - 550 (number of rows)
   - 100 (width of field)
   - 27 000 (seeds per kg)

2. An observable minor error is an incorrect result to a correctly stated operation or a transcription error.

3. A data piece is used meaningfully, if where it is used is able to form part of a complete solution if correctly executed.

Item 14

Commentary
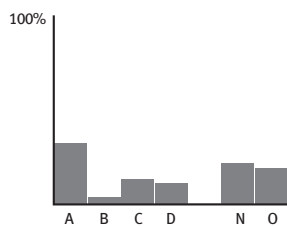
Item 14 is a three-star item that tested achievement in CCEs 19 *Substitution into formulae*, 16 *Calculating with or without calculators*, 45 *Judging* and 32 *Deducing*.

This item required students to discuss whether a large conical pile of wheat, 7.75 metres high, contains enough grain to supply a flour mill with 1 500 000 kg of wheat, given that wheat grain weighs 800 kg per cubic metre. Students needed to justify their conclusion. The cue directed students to show all steps and to clearly state their conclusion.

An A-grade response needed to show correct determination of value/s to compare the amount stored in the wheat pile with the amount needed by the mill and give the correct conclusion. The response also had to show that the relationship between the height and the radius of the pile was attended to correctly and that substitution into the volume formula was correctly executed.

Some responses provided an incorrect calculation to determine the radius of the pile. The ratio of height to radius was given as 0.5, therefore the height had to be doubled to find the value for the radius. Responses that compared weights of the pile and mill requirement needed only to determine the weight of the pile from the volume. However other responses compared attributes such as the volume of the pile and so had to determine both that and the volume required by the mill.

Students should be aware that if a mathematical formula is provided in an item its use is likely to be part of the response. Using consistent units correctly is an important skill. In this item, for example, attempts were made to provide the conclusion by comparing a volume with a weight rather than by comparing values having the same units — value in kilograms can only be meaningfully compared with a corresponding value in kilograms.

Model response

> Discuss whether the farm business will have enough wheat grain from their last harvest to be able to supply the amount required by the flour mill. Their conical pile is 7.75 metres high and wheat grain weighs 800 kg/m^3. Justify your conclusion.
>
> Show all steps.
>
> Clearly state your conclusion.
>
> $r = \dfrac{h}{0.5}$ So $r = \dfrac{7.75}{0.5} = 15.5$
>
> $v = \dfrac{\pi r^2 h}{3}$
>
> $= \dfrac{\pi \times 15.5^2 \times 7.75}{3} = 1949.8 \text{ m}^3$
>
> Weight $= 1949.8 \times 800 = 1\,559\,840 \text{ kg}$
>
> $\therefore$ Yes they have.

UNIT EIGHT   ITEM 14

Marking Scheme

| PERFORMANCE DOMAIN | 19 | Substituting in formulae | 45 | Judging |
| | 16 | Calculating with or without calculators | 32 | Deducing |

A	B	C	D	N
The response • shows evidence of the *h* and *r* relationship attended to correctly • shows correct substitution into the volume formula • correctly determines required value/s for a creditable comparison • gives the correct conclusion. No incorrect working or invalid operations are used to arrive at the conclusion.	The response, allowing for at most one observable minor error and consequentially correct values, • shows evidence of the *h* and *r* relationship attended to correctly • shows correct substitution into the volume formula • determines required *value/s* for a creditable comparison • provides a conclusion that is consistent with the calculated value/s. No invalid operations are used to arrive at the conclusion ——— OR ——— The response • shows evidence of the *h* and *r* relationship attended to correctly • shows correct substitution into the volume formula • correctly determines required value/s for a creditable comparison. No incorrect working or invalid operations are used to obtain the value/s for comparison.	The response • shows evidence of using the *h* and *r* relationship • shows correct substitution into the volume formula • determines required value/s for a creditable comparison • provides a conclusion consistent with the calculated value/s. ——— OR ——— The response • provides TWO valid steps correctly managed.	The response shows any TWO of the following • evidence of using the *h* and *r* relationship • substitution into the volume formula • the determination of a value that could be used for a creditable comparison • a conclusion consistent with the calculated value/s. ——— OR ——— The response • provides ONE valid step correctly managed.	Response is unintelligible or does not satisfy the requirements for any other grade. O No response has been made at any time.

Model Response:
(comparing weights)

$$r = \frac{h}{0.5} \quad \text{So } r = \frac{7.75}{0.5} = 15.5$$

$$V = \frac{\pi\, r^2\, h}{3}$$

$$= \frac{\pi \times 15.5^2 \times 7.75}{3} = 1949.8 \text{ m}^3$$

Weight = $1949.8 \times 800 = 1559840$ kg

∴   Yes they have.

Notes:

1. The *h* and *r* relationship is attended to correctly if the radius is double the height.

2. A creditable comparison can be made between two weights or two volumes or two heights or two radii where the units match.

3. An observable minor error is an incorrect result to a correctly stated operation or a transcription error.

4. Valid steps are:
    • determining the radius / volume / weight for the pile of wheat harvested
    or
    • determining the volume / radius / weight / height for the wheat required.

5. A valid step is correctly managed if it uses the correct operation/s to arrive at a consequentially correct result for that step.

6. None of the values 800, 400, 7.75 or 1500000 may be used as the value of the radius.

UNIT EIGHT   ITEM 14

Marking Scheme

Model Response:
(comparing volumes)

$$r = \frac{h}{0.5} \qquad r = \frac{7.75}{0.5} = 15.5$$

$$\text{Vol of pile} = \frac{\pi\, r^2\, h}{3}$$

$$= \frac{\pi \times 15.5^2 \times 7.75}{3} = 1949.8$$

$$\text{Vol required} = \frac{1\,500\,000}{800} = 1875$$

∴ There is an adequate supply of grain.

Model Response:
(comparing radii)

$$\text{Volume required} = \frac{1\,500\,000}{800} = 1875\ \text{m}^3$$

$$V = \frac{\pi\, r^2\, h}{3}$$

$$1875 = \frac{\pi\, r^2\, h}{3}$$

$$1875 = \frac{\pi\, r^2\, 7.75}{3}$$

$$r^2 = 231$$

$$\text{radius required} = 15.2$$

$$\text{but } r = \frac{h}{0.5}$$

$$= \frac{7.75}{0.5} = 15.5\ \text{m}$$

∴ Pile contains enough wheat to supply mill.

Model Response:
(comparing heights)

$$\text{Volume required} = \frac{1\,500\,000}{800} = 1875\ \text{m}^3$$

$$\frac{h}{r} = 0.5 \qquad r = \frac{h}{0.5} = 2h$$

$$V = \frac{\pi\, r^2\, h}{3}$$

$$3 \times V = \pi\, (2h)^2\, h$$

$$\therefore \quad 3 \times 1875 = \pi \times 4 \times h^3$$

$$h = \sqrt[3]{447.6}$$

$$\text{height required} = 7.65\ \text{m}$$

$$\therefore \quad \text{There is enough grain as } 7.75 > 7.65.$$