This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners’ meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2016 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.
Question 1

This question tests reading assessment objectives R1 to R3 (15 marks)

R1 demonstrate understanding of explicit meanings
R2 demonstrate understanding of implicit meanings and attitudes
R3 analyse, evaluate and develop facts, ideas and opinions

and writing assessment objectives W1 to W4 (5 marks)

W1 articulate experience and express what is thought, felt and imagined
W2 sequence facts, ideas and opinions
W3 use a range of appropriate vocabulary
W4 use register appropriate to audience and context

You are Gant. Following a successful rescue attempt and your return to your home city, you give a talk for your colleagues and students at the university about your experiences in the past.

Write the words of your talk.

In your talk you should:
• describe the challenges and dangers of life in the past and how you adapted
• explain the efforts you made to improve the lives of your family and the people around you
• suggest some things you have learned from the experience and how it has changed you and your attitudes to modern life.

Base your talk on what you have read in Passage A, but be careful to use your own words. Address each of the three bullet points.

Begin your talk, ‘Colleagues and students, my life in the last ten years has been a strange one…’

Write about 250 to 350 words.

Up to 15 marks are available for the content of your answer, and up to 5 marks for the quality of your writing.

General notes

Candidates should select ideas from the passage (see pages 6 & 7) and develop them relevantly, supporting what they write with details from the passage. Look for an appropriate register for the genre, and a clear and balanced response which covers the three areas of the question, is well sequenced, and is in the candidate’s own words.

Annotate A1 for references to challenges & dangers of life in the past and how Gant adapted
Annotate A2 for references to Gant’s efforts to improve the lives of his family and the people around him
Annotate A3 for references to what Gant has learned from the experience and how it has changed him and his attitudes to modern life.
Responses might use the following ideas:

A1: the challenges and dangers of life in the past and how you adapted

- **living in a cave / primitive home** (det. bear hide for blanket, rock for a bed, carving calendar on rock) [dev. no luxuries, no modern appliances, no carpets or modern furnishings, no means of keeping a record, having to build, source, invent or make what is needed]
- **other people** (det. wife and son roll to their feet at disturbance, people in other cave have weapons, stone axe) [dev. need to be constantly on guard and defensive, others may attack you if they are surprised, don’t recognise or trust you]
- **dangerous animals** (det. great animal) [dev. used fire to keep them away; have to learn to listen for sounds of threats/noticing signs of threats]
- **no electricity / no power** (det. rising with the dawn, fire only source of energy for cooking, warmth etc.) [dev. having to adapt to a different way of living in tune with the seasons and the sun, had to learn how to make and maintain a wood fire]
- **food** – having to hunt / forage for food (det. heavy-bodied animal) [dev. hunting potentially dangerous and difficult due to terrain and undergrowth]
- **water** (det. foul tasting; tiny spring) [dev. few sources of fresh water, need to boil it for safety reasons]
- **language** (det. grunts, gestures rather than speaking or writing) [dev. had to learn how to communicate]
- **illness** (det. foul tasting water, no modern medicines or medical resources, lack of care for the sick) [dev. had to use leaves to cool child, physical differences between these less-evolved humans and him]

A2: the efforts you made to improve the lives of your family and the people around you

- **made family a bed** (det. mattress of moss, platform) [dev. raised from floor for warmth and comfort]
- **built a barrier** at the mouth of the cave (det. logs) [dev. protection from an animal wandering in by accident]
- **preserved food** for use later (det. dried snake) [dev. provide an alternative when it was not possible to hunt]
- introduced / refined methods for **making / using fire** (det. wood chips, positioned in mouth of cave as protection) [dev. varying size of wood to make burning more efficient / effective, preparing wood chips in advance]
- **health education** (wife) (det. taught family to boil water, gathering shoots) [dev. difficult persuading carnivorous family to eat vegetables]
- **medicines** – growing penicillin (det. for three years) [dev. people dying because of lack of medicines]
- **treatment** (det. monitoring symptoms, attempting to keep the little girl warm and hydrated) [dev. taking risks/endangering himself to treat patients]
A3: things you have learned from the experience and how it has changed you and your attitudes to modern life.

- **appreciate modern luxuries** and **amenities** (det. city apartment / cave) [dev. no longer take ease of lifestyle for granted; appreciate relative safety of modern life]
- **consider consequences of actions** more carefully (det. quick to volunteer for experiment, trial run, ambitious project) [dev. effect on past as well as present; affected by death of colleagues]
- **family responsibilities** (det. wife / son) [dev. duty to care to provide / protect; effects of ‘rescue’ on them]
- **social and cultural values** (det. child left at back of cave when ill; violence) [dev. rule of law not brute strength, more empathetic to patients, understand need/value of care]
- **attitude to science / scientists** (det. modern medicines, physicists not understanding physiological effects) [dev. less trusting of science; realise own arrogance / appreciate progress made]
- **mental effects** (det. ten years, flashbacks) [dev. learn not to give up hope / more resourceful and capable of surviving]
- **physical effects** (det. heavy axe, hunting, natural foods) [dev. physically stronger / healthier now]

The discriminator is the development of the writer’s opinions, feelings and attitudes, as this requires candidates to draw inferences. Ideas and opinions must be derived from the passage, developing the implications.
Marking Criteria for Question 1

Table A, Reading:

Use the following table to give a mark out of 15 for Reading.

<table>
<thead>
<tr>
<th>Band</th>
<th>Mark Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13–15</td>
<td>The response reveals a <strong>thorough</strong> reading of the passage. Developed ideas are sustained and well related to the passage. A wide range of ideas is applied. There is supporting detail throughout, which is well integrated into the response, contributing to a strong sense of purpose and approach. All three bullets are well covered. A consistent and convincing voice is used.</td>
</tr>
<tr>
<td>2</td>
<td>10–12</td>
<td>The response demonstrates a <strong>competent</strong> reading of the passage. A good range of ideas is evident. Some ideas are developed, but the ability to sustain them may not be consistent. There is frequent, helpful supporting detail, contributing to a clear sense of purpose. All three bullets are covered. An appropriate voice is used.</td>
</tr>
<tr>
<td>3</td>
<td>7–9</td>
<td>The passage has been read <strong>reasonably</strong> well. A range of straightforward ideas is offered. Opportunities for development are rarely taken. Supporting detail is present but there may be some mechanical use of the passage. There is uneven focus on the bullets. The voice is plain.</td>
</tr>
<tr>
<td>4</td>
<td>4–6</td>
<td>There is some evidence of <strong>general understanding</strong> of the main ideas, although the response may be thin or in places lack focus on the passage or the question. Some brief, straightforward reference to the passage is made. There may be some reliance on lifting from the text. One of the bullets may not be addressed. The voice might be inappropriate.</td>
</tr>
<tr>
<td>5</td>
<td>1–3</td>
<td>The response is either <strong>very general</strong>, with little reference to the passage, or a reproduction of sections of the original. Content is either insubstantial or unselective. There is little realisation of the need to modify material from the passage.</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>There is little or no relevance to the question or to the passage.</td>
</tr>
</tbody>
</table>
**Table B: Writing: Structure and order, style of language**

Use the following table to give a mark out of 5 for Writing.

<table>
<thead>
<tr>
<th>Band</th>
<th>Mark</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>The language of the response sounds convincing and consistently appropriate. Ideas are firmly expressed in a wide range of effective and/or interesting language. Structure and sequence are sound throughout.</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Language is mostly fluent and there is clarity of expression. There is a sufficient range of vocabulary to express ideas with subtlety and precision. The response is mainly well structured and well sequenced.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Language is clear but comparatively plain and/or factual, expressing little opinion. Ideas are rarely extended, but explanations are adequate. Some sections are quite well sequenced but there may be flaws in structure.</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>There may be some awkwardness of expression and some inconsistency of style. Language is too limited to express shades of meaning. There is structural weakness and there may be some copying from the passage.</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>Expression and structure lacks clarity. Language is weak and undeveloped. There is very little attempt to explain ideas. There may be frequent copying from the original.</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>The response cannot be understood.</td>
</tr>
</tbody>
</table>
Question 2

This question tests Reading Objective R4 (10 marks):

R4 demonstrate understanding of how writers achieve effects

Re-read the descriptions of:

(a) his attempts to grow penicillin in paragraph 5, beginning ‘In the marsh that lay beyond the underbrush…’

(b) the girl in paragraph 7, beginning ‘She sat leaning against the rock …’

Select four words or phrases from each paragraph. Your choices should include imagery. Explain how each word or phrase selected is used effectively in the context.

Write about 200 to 300 words.

Up to 10 marks are available for the content of your answer.

General notes

This question is marked for the ability to select powerful or unusual words and for an understanding of ways in which the language is effective. Expect responses to provide words (listed in the mark scheme on page 10) that carry connotations additional to general meaning.

Mark holistically for the overall quality of the response, not for the number of words chosen, bearing in mind that there should be a range of choices to demonstrate an understanding of how language works for the higher bands, and that this should include the ability to explain images. It is the quality of the analysis that attracts marks. Do not take marks off for inaccurate statements; simply ignore them.

The following notes are a guide to what good responses might say about the selections. They can make any sensible comment, but only credit those that are relevant to the correct meanings of the words in the context and that have some validity. Alternative acceptable explanations should be credited. Credit comments on effects created by non-vocabulary choices such as grammar/syntax and punctuation devices. They must be additional to comments on vocabulary.
(a) his attempts to grow penicillin in paragraph 5, beginning ‘In the marsh beyond…”'

The general effect is one of frustration and disappointment.

Monuments to his vanity and failures (image): structures to commemorate / celebrate a great person / event; ironic - evidence of his failed attempts, and his pride and conceit in believing that he could grow penicillin

Jagged rocks and stunted tree stumps: sharp, uneven rocks, remains of trees that have failed to grow or have been cut down. Representative of his struggles in a harsh landscape – futile to try to grow medicine in such conditions.

Fleshy plump berries (image): rounded and full, ripe and juicy with the promise to provide health and goodness, but provided nothing.

Pulpy, blood-red juices: soft and mushy in texture with a bright / vibrant colour. Blood associated with life and health, or with the violence and death that surround him.

Clumsily-carved bark receptacles: a hand-made container, roughly hewn; poor quality, too basic; indicates his optimism / tenacity / foolishness in trying to grow a modern medicine with primitive and unscientific equipment in poor conditions. Also an indication of his lack of practical skills.

Marshmallowy green mould (image): a mildewed or rotten substance, soft to the touch; marshmallowy suggests sweetness, an appetising and innocent treat, making the mould seem more enticing / attractive.

Revolting and pungent: disgusting with a strong and unpleasant smell; nauseating, repellent and unappetising, a contrast to the marshmallow image.

Slimy grey mass: shapeless, undefined, slippery; disgusting / repellent opposite to his expectation

Rapidly rotted at the sun’s touch (image): quickly turned bad; the sun is usually associated with growth, life and nurturing but here it destroys and rots the fruit as though an enemy / destructive force.

(b) the girl in paragraph 7, beginning ‘She sat leaning against the rock …’.

The general effect is of a child who is very afraid and seriously ill. The situation is one of sad hopelessness and is likely to draw the reader’s empathy.

Eyes staring dully: lifeless, unfocused and lacking sparkle; lack of expression suggests little energy, barely conscious and close to death.

Onyx-black and empty (image): a dark coloured, hard stone; suggests a harshness, coldness and lack of life, associations with death / statues; alien.

Downy blanket of blonde hair (image) : youth, newborn, feathery soft, should be comforting but offers no protection; starting her life not ending it.

Limp and lifeless: lack of energy, floppy; like a rag doll and cannot support herself, she is weak and vulnerable.

Tiny frame: very small, basic structure; insubstantial, she is only an outline or skeleton-like structure without the padding of muscles; thin and weak, evoking sympathy; vulnerable.

Solid concrete sound (image): noisy breathing shows how near to death she is; lungs are blocked; grotesque / painful.

Wild-eyed: a panicked or fearful look; startled

Like a frightened rabbit (image): timid, innocent creature, unable to defend itself, a rabbit in headlights is transfixed with fear; vulnerability.
Marking Criteria for Question 2

Table A, Reading: Language analysis:

Use the following table to give a mark out of 10 for Reading.

<table>
<thead>
<tr>
<th>Band</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 1</td>
<td>9–10</td>
<td>Wide ranging and closely focused discussion of language with some high quality comments that add associations to words in both parts of the question, and demonstrate the writer’s reasons for using them. Tackles imagery with some precision and imagination. There is clear evidence that the candidate understands how language works.</td>
</tr>
<tr>
<td>Band 2</td>
<td>7–8</td>
<td>Explanations are given of appropriately selected words and phrases, and effects are identified in both parts of the question. Images are recognised as such and the response goes some way to explaining them. There is some evidence that the candidate understands how language works.</td>
</tr>
<tr>
<td>Band 3</td>
<td>5–6</td>
<td>A satisfactory attempt is made to identify appropriate words and phrases. The response mostly gives meanings of words and any attempt to suggest and explain effects is basic, vague or very general. One half of the question may be better answered than the other.</td>
</tr>
<tr>
<td>Band 4</td>
<td>3–4</td>
<td>The response provides a mixture of appropriate choices and words that communicate less well. The response may correctly identify linguistic or literary devices but not explain why they are used. Explanations of meaning may be few, general, slight or only partially effective. They may repeat the language of the original or do not refer to specific words.</td>
</tr>
<tr>
<td>Band 5</td>
<td>1–2</td>
<td>The choice of words is insufficient or rarely relevant. Any comments are inappropriate and the response is very thin.</td>
</tr>
<tr>
<td>Band 6</td>
<td>0</td>
<td>The response does not relate to the question. Inappropriate words and phrases are chosen or none are selected.</td>
</tr>
</tbody>
</table>

For valid choices of words, tick in the body of the response. For imprecise or incomplete choices or explanation, use ^\_. For meaning annotate EXP in the margin and for effect (i.e. responses evoked in the reader) annotate + in the margin. Indicate overview with O.
Question 3

This question tests reading assessment objectives R1, R2 and R5 (15 marks)

R1 demonstrate understanding of explicit meanings
R2 demonstrate understanding of implicit meanings and attitudes
R5 select for specific purposes

and writing assessment objectives W1 to W3 (5 marks)

W1 articulate experience and express what is thought, felt and imagined
W2 sequence facts, ideas and opinions
W3 use a range of appropriate vocabulary

(a) Notes

According to Passage B, how are antibiotics being misused and what are the consequences of this for human health?

Write your answer using short notes. Write one point per line.

You do not need to use your own words.

Up to 15 marks are available for the content of your answer. [15]

(b) Summary

Use your notes from Question 3(a) to write a summary of how antibiotics are being misused and the consequences of this for human health, according to Passage B.

You must use continuous writing (not note form) and use your own words as far as possible.

Your summary should include all 15 of your points in Question 3(a) and must be 200 to 250 words.

Up to 5 marks are available for the quality of your writing. [5]
Reading content for Question 3(a)

Give 1 mark per point listed below, up to a maximum of 15.

How antibiotics are being misused and the consequences of this for human health

Give 1 mark for a point about:

1. end to modern medicine / anti-biotics would no longer be effective
2. minor ailments could become fatal again / throat infection and infected cuts fatal again [note: 'ailments' on its own in insufficient – needs an example]
3. operations could become impossible / organ transplants and hip replacements impossible (need both)
4. bacterial infections more potent / bacterial infections more dangerous / bacterial infections more difficult to treat
5. (doctors have to resort to) less conventional medications / (use of ) more expensive drugs / alternative drugs used have more side effects
6. (rise of) superbug(s) / (form of) resistant tuberculosis / drug resistant bacteria
7. (pharmaceutical companies) not developing new antibiotics
8. treating healthy animals (has led to resistance)
9. resistance in animals spreads to humans / resistance spreads through food chain
10. lack of regulatory practices / antibiotics sold over the counter
11. patients overuse / (patients) fail to finish a course of treatment / (patients) self-diagnose
12. giving unfinished antibiotics to friend / giving unused antibiotics to a relative / give away spare antibiotics ( needs sense of giving to someone else)
13. taken for infections that should not be treated with antibiotics / taken for virus (allow two or more examples)
14. patients demand them / doctors give in to demands
15. antibiotic-resistant hospital infections / life-threatening infections in hospital / Clostridium difficile
16. natural gut flora wiped out / healthy bacteria destroyed

Notes:
- Only one point per numbered bullet in an answer can be credited.
- Additional incorrect information negates.
- Credit responses in 3a which convey the essence of the point.

Although lifting of words and phrases from the passage is acceptable, candidates should show evidence of understanding and selection by clearly focusing on the key details. Over-lengthy lifting (e.g. of whole sections containing a number of points) should not be credited. Where errors of grammar / spelling seriously affect the accuracy of an idea, the point should not be awarded.
Marking Criteria for Question 3(b)

Table A, Writing (concision, focus, use of own words):

Use the following table to give a mark out of 5 for Writing.

<table>
<thead>
<tr>
<th>Band 1</th>
<th>5</th>
<th>The response is well focused on the passage and the question. All points are expressed clearly, concisely and fluently, and in the candidate’s own words (where appropriate) throughout.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 2</td>
<td>4</td>
<td>The summary is mostly focused but may have a redundant introduction or conclusion. Most points are made clearly and concisely. Own words (where appropriate) are used consistently.</td>
</tr>
<tr>
<td>Band 3</td>
<td>3</td>
<td>There may be occasional loss of focus or clarity. There are some areas of concision. Own words (where appropriate) are used for most of the summary. Responses may be list-like or not well sequenced</td>
</tr>
<tr>
<td>Band 4</td>
<td>2</td>
<td>The summary is sometimes focused. It may lack some clarity. It may include comment, repetition, unnecessarily long explanation or lifted phrases.</td>
</tr>
<tr>
<td>Band 5</td>
<td>1</td>
<td>The summary is unfocused or wordy. It may be answered in the wrong form (e.g. narrative, commentary or as notes) or lack clarity. There may be frequent lifting of phrases and sentences.</td>
</tr>
<tr>
<td>Band 6</td>
<td>0</td>
<td>Excessive lifting; no focus. The response cannot be understood or consists entirely of the words of the passage.</td>
</tr>
</tbody>
</table>