

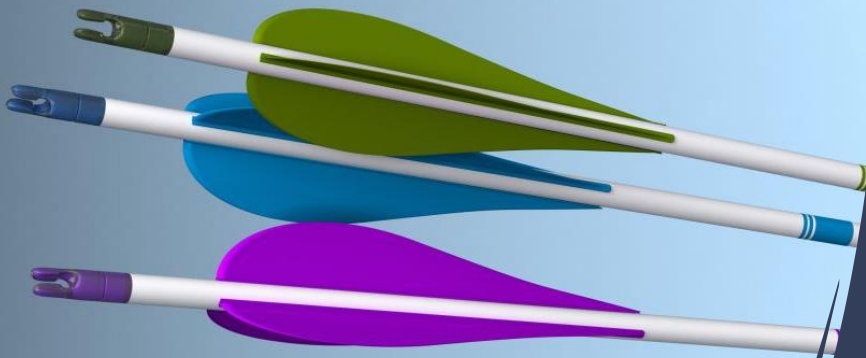
First Language English

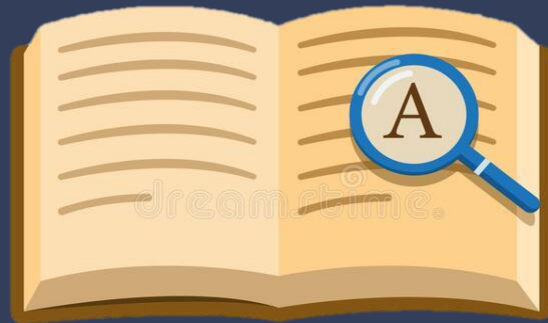
IGCSE- 0500/12/M/J/2021



Objectives:

- To demonstrate understanding of explicit, implicit meanings and attitudes
- To select and use information for specific purposes
- To organise and structure ideas and opinions for deliberate effect
- To make accurate use of spelling, punctuation and grammar





- Read Text A, Antarctica, in the insert and then answer Questions 1(a)–1(e) on this question paper.

Text A: Antarctica

This text gives information about Antarctica.

Antarctica is the fifth largest continent in terms of total area, larger than the continents of both Oceania and Europe. The Antarctic Ice Sheet, the largest single piece of ice on Earth, dominates the region. This ice sheet even extends beyond the continent when snow and ice are at their most extreme in winter months.

The Antarctic region has an important role in global climate processes. It is an integral part of the Earth's heat balance (the relationship between the amount of solar heat absorbed by Earth's atmosphere and the amount of heat reflected back into space).

5

Ice is more reflective than land or water surfaces. The massive Antarctic Ice Sheet reflects a large amount of solar radiation away from Earth's surface. As global ice cover (ice sheets and glaciers) decreases, the reflectivity of Earth's surface also decreases. This allows more incoming solar radiation to be absorbed by the Earth's surface, causing an unequal heat balance linked to global warming.

10

While Antarctica does not have permanent residents, the region is busy with research scientists from dozens of different countries. Antarctica has no national borders, so the entire continent is open for research. It has the cleanest air in the world, so atmospheric monitoring done there provides more reliable data.

15

Most visitors to Antarctica are either increasingly adventurous tourists, on increasingly affordable cruises, or researchers involved in national scientific programmes. In many aspects the type of activities undertaken and the potential environmental impacts are common to all visitors. Whatever their reason for being in Antarctica, these people will want to visit the same spectacular scenery and witness threatened wildlife colonies.

20

Although nearly three times as many tourists visit Antarctica than researchers, the number of person-days on the ground in Antarctica for national scientific programmes far exceeds the number for tourism, which is nearly all ship based.

National programmes have involved the establishment of permanent or semi-permanent stations, served by new roads and runways, and staffed by long-term (wintering) and short-term (summer only) personnel. Only in recent years have environmental audits carried out around scientific stations ensured that waste of all kinds is returned to the country of origin wherever possible.

25

Question 1. Detailed questions 1a- 1e.

(a) Give **two** continents that are smaller than Antarctica.

-
- [1]

(b) Using your own words, explain what the text means by:

(i) 'dominates the region' (line 3):

.....
..... [2]

(ii) 'integral part' (lines 5 and 6):

.....
..... [2]

Question 1.

(c) Re-read paragraph 3 ('Ice is ... warming.').

Give **two** reasons why loss of ice in Antarctica is significant.

-
- [2]

(d) Re-read paragraphs 4 and 5 ('While Antarctica ... colonies.').

(i) Identify **two** reasons why the region is a popular destination for scientists from lots of different countries.

-
- [2]

(ii) Explain why growing numbers of tourists want to visit Antarctica.

-
- [3]

Question 1.

(e) Re-read paragraphs 6 and 7 ('Although nearly ... wherever possible').

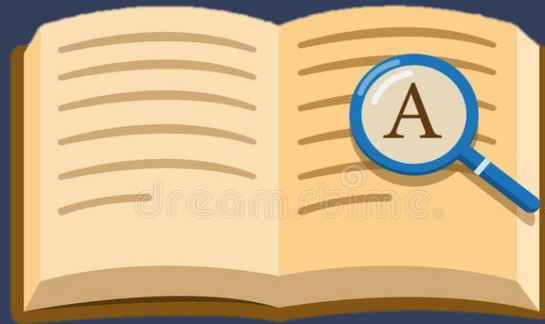
Using your own words, explain why the impact of scientists visiting Antarctica may be worse than the impact of tourists visiting.

.....

.....

.....

[3]



- Read Text B, Crossing Antarctica, in the insert and then answer Question 1(f) on this question paper.

Text B: Crossing Antarctica

This text is an article about Wendy Searle who plans to break the women's world speed record for skiing solo to the South Pole, unassisted and unaided – a huge challenge!

Five years ago, Wendy Searle hadn't considered crossing Antarctica. Then she organised the media campaign of an expedition to the South Pole by a team of military personnel. It made her wonder if she could have a go herself.

Despite the fact that she had no previous polar training and had never skied before, she successfully skied 560 kilometres across the Greenland ice sheet last year: 'One thing I learned is that my polar expedition will be incredibly tough, mentally.' 5

Searle will need to ski 1130 kilometres across the frozen continent of Antarctica in less than 38 days, 23 hours and 5 minutes. 'I can't have any outside assistance and I have to take everything with me in a special sledge called a pulk: all my food, my fuel, my supplies, everything. I can't have any food re-supplies or medical help. I cannot even accept a cup of tea,' she said. 'I'll be completely alone and, in all likelihood, I won't see anybody else.' 10

Searle is 1.53 metres tall and weighs just over 60 kilograms; the pulk will weigh over 80 kilograms. Training for the expedition, she needs to spend more than 10 hours a week lifting weights and running up and down hills pulling a tyre, while also holding down a full-time job. Knowing how difficult and dangerous the route is going to be forces Searle to prioritise training: 'That one day you don't train might be the difference between success and failure.'

15

Her family – her husband is a soldier and they have three teenage daughters and a son – are doing all they can to support her. 'My children are super-independent. They even organise me. They'll say, "Don't forget parents' evening and these are the appointments I've got you." They're amazing.' She's determined to inspire them. 'I want my children to see that it's OK to pursue something with a white-hot passion in a single-minded way and focus on a goal.'

20

Searle is still raising money to fund the expedition. She feels it's more difficult to attract sponsorship as a female polar explorer: 'People need to get behind female adventurers. I asked a well-known TV agent why there aren't more programmes about us and she said, "Honestly, there just isn't the audience."'

25

Searle hopes her story will change perceptions.

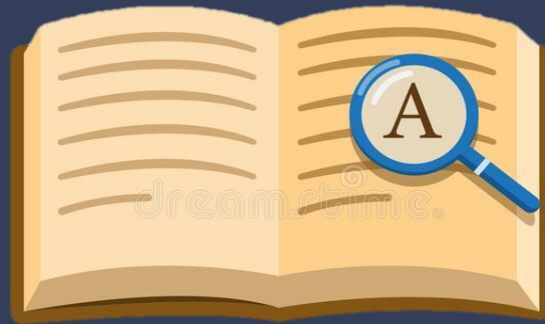
Question 1f. Summary

(f) According to Text B, what challenges does Searle face to achieve her goal?

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

Your summary should not be more than 120 words.

Up to 10 marks are available for the content of your answer and up to 5 marks for the quality of your writing.



- Read Text C, Base station, Antarctica, in the insert and then answer Questions 2(a)–2(d) and Question 3 on this question paper.

Text C: Base station, Antarctica

This text is taken from a longer narrative. The narrator is a journalist who has been invited to spend time at a national scientific programme base station on Antarctica. She has travelled by ship with a new group of staff arriving at the base at the start of summer and is planning to stay long enough to experience the beginning of winter.

Base emitted a hushed grandeur, as if a vault door had been closed – all noise guarded fiercely behind it. A gunshot-like crack echoed through the air – an iceberg rotating – then a roar like a distant waterfall as another chunk of the ice shelf collapsed into the bay. Rough squawks of skuas were magnified through the telescope of empty dry air. There were no smells of soil, trees, nor grass. Only the scent of Antarctica – like two stones rubbed together. Flint.

5

We passed truckloads of tinned-food boxes in huge hangars. In summer, Base could accommodate a hundred people: scientists returning from tented field-camps or being deployed to them, pilots flying them in and out, cooks, mechanics, even the occasional VIP.

10

We were shown the laboratory, air-traffic control tower, stores where ski equipment was repaired, generator hut and sewage treatment plant. It felt both exciting and daunting to call this home for the next few months. There were no museums, cafés or restaurants. No animals, Wi-Fi or children. No real strangers.

That evening we encountered more Base people – young, fit figures without that fume of the outside that still clung to us. They sported the same padded boiler suits and fleece jackets, and were keen to talk. ‘I don’t call the real world often, it’s best to just live in the bubble,’ confided marine biologist Ben. I said I planned to stay until the very last boat out. ‘Winter here’s long,’ he added. 15

Field training took days; we learned how to abseil into a crevasse, get ourselves out and rescue someone who has fallen in. We hurled ourselves down the sheer face of a glacier – to learn to break our fall with an ice-axe. We erected and dismantled pyramid tents, cooked on camp-stoves, and learned how to load a sledge. 20

There wasn’t much time to think, let alone write, in the early weeks occupied by briefings, obligatory group activities and trips into the bay to collect water samples. 25

Summer was term time. Each evening scientists gave informal lectures: scientists who routinely dived beneath the ice among carnivorous leopard seals and orcas; scientists in the ice-coring team who worked in an underground cavern, surfacing only to cook and sleep in pyramid tents on the blasted plain of Berkner Island. I was learning more in weeks than I had in entire years. 30

For the first time I began to think of the planet as an organism whose well-being I could affect. Here I felt closer to it. I could hear its pulse. ‘In ice, depth equals time,’ explained Xavier, a scientist working with the ice-coring team. ‘The further down you go, the further back in time you go. The ice core shows that major changes have taken place within Earth’s climate. There’s an irrefutable steady upward trend, directly linked to carbon dioxide, and humans.’ I shivered involuntarily. 35

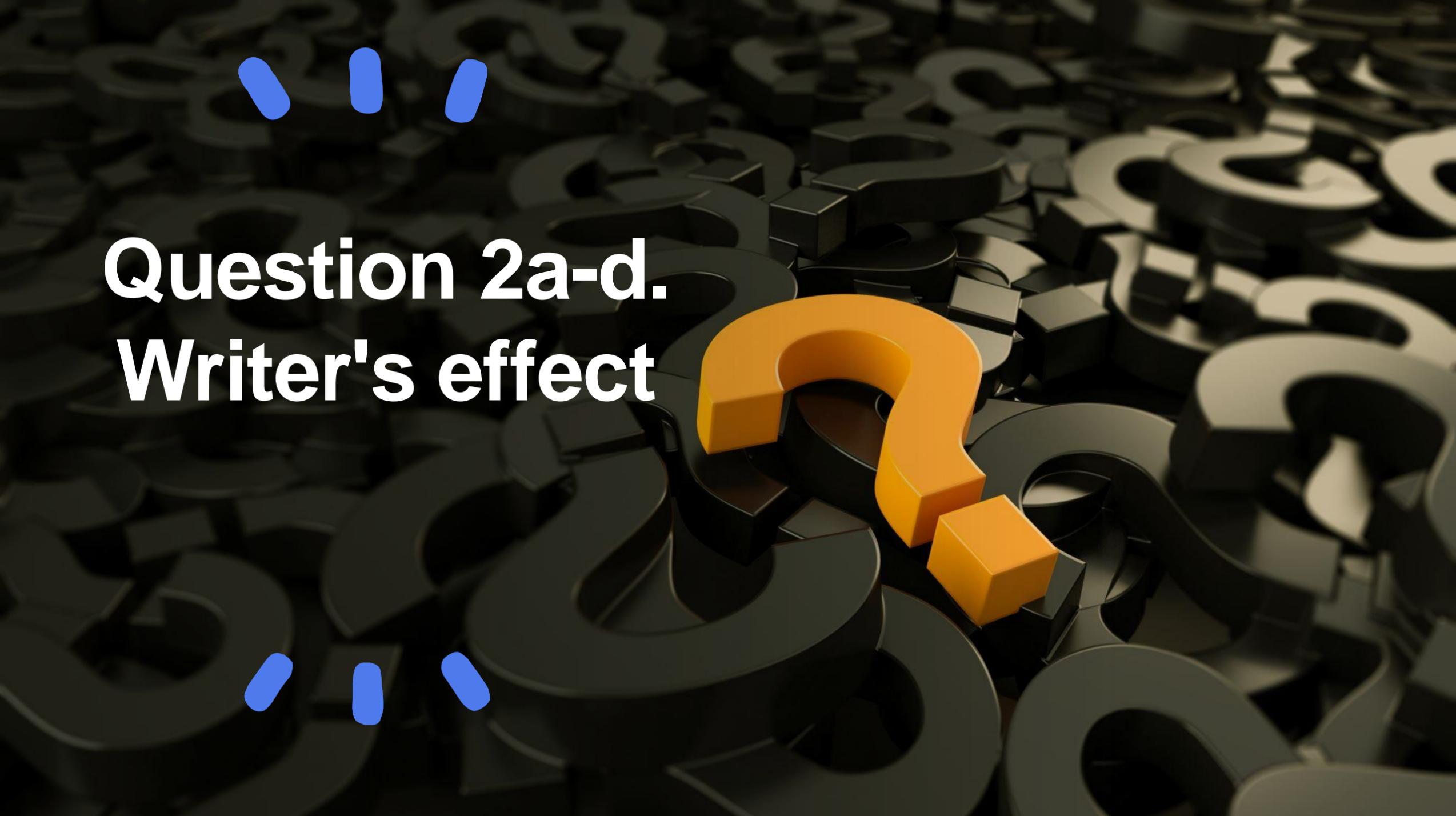
As winter approached, activities on Base diminished. For entertainment, our dwindling group played cards or leafed through old magazines.

We were given new instructions by Base Commander Simon. We weren't to walk off Base without telling him first. The sea ice was hardening at the shore; fresh snowfalls made it difficult to see where land stopped and sea began. We risked falling through. 40

Safety was taken seriously – endless rehearsals drilled into us how Antarctic tragedies had more than one cause; mishaps or misjudgements which sealed people's fate.

Temperatures dropped further. Snowstorms blanketed the runway. The last ship out depended on the weather. People had overwintered unexpectedly here before. 45

Around us the world was hardening. In the bay it started as ice flowers, tiny crystal formations. The creeping carpet of flowers knitted together, until soaked by seawater it transformed into grey gruel, thickening into porridge. As temperatures plummeted, porridge-ice welded itself together, and sounded like steel grinding. In gathering darkness sea ice formed. The continent was closing in on itself, locking itself in. Winter was beginning. 50



Question 2a-d.
Writer's effect

(a) Identify a word or phrase from the text which suggests the same idea as the words underlined:

(i) There were lots of containers of supplies stored in hangars on the base.

..... [1]

(ii) Some scientists regularly went underwater to study animals living beneath the ice.

..... [1]

(iii) The scientists' observations that the climate of the Earth is changing are impossible to prove wrong.

..... [1]

(iv) There were lots of practice drills to ensure safety.

..... [1]

(b) Using your own words, explain what the writer means by each of the words underlined:

That evening we encountered more Base people – young, fit figures without that fume of the outside that still clung to us. They sported the same padded boiler suits and fleece jackets, and were keen to talk. ‘I don’t call the real world often, it’s best to just live in the bubble,’ confided marine biologist Ben. I said I planned to stay until the very last boat out. ‘Winter here’s long,’ he added.

(i) encountered [1]

(ii) sported [1]

(iii) confided [1]

(c) Use **one example from the text below to explain how the writer suggests the contrast between the narrator and the Base people living permanently on the base.**

Use your own words in your explanation.

That evening we encountered more Base people – young, fit figures without that fume of the outside that still clung to us. They sported the same padded boiler suits and fleece jackets, and were keen to talk. ‘I don’t call the real world often, it’s best to just live in the bubble,’ confided marine biologist Ben. I said I planned to stay until the very last boat out. ‘Winter here’s long,’ he added.

(d) Re-read paragraphs 1 and 13.

- Paragraph 1 begins 'Base emitted ...' and is about the narrator's first impressions of the base station in Antarctica.
- Paragraph 13 begins 'Around us ...' and is about the arrival of winter in Antarctica.

Explain how the writer uses language to convey meaning and to create effect in these paragraphs. Choose **three** examples of words or phrases from **each** paragraph to support your answer. Your choices should include the use of imagery.

Write about 200 to 300 words.

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



Question 3. Speech

You are Simon, the Base commander. You are giving a **speech** for a group of young people to explain to them the opportunities and challenges of living and working on the base station.

In your speech you should:

- explain the different kinds of jobs available at Base station and what activities each job might involve
- outline what they can expect day-to-day life to be like when they first arrive and once they have settled in
- suggest the challenges and rewards of living and working at the Antarctic base station.

Write the words of the speech.

Base your speech on what you have read in **Text C**, but be careful to use your own words. Address each of the three bullets points.

Write about 250 to 350 words.

Up to 15 marks are available for the content of your answer and up to 10 marks for the quality of your writing.



Mark scheme





Question 1a-e.

1(a)	<p>Give <u>two</u> continents that are smaller than Antarctica.</p> <p>Award 1 mark for both responses.</p> <ul style="list-style-type: none">• Oceania• Europe	1
1(b)(i)	<p><u>Using your own words</u>, explain what the text means by: 'dominates the region' (line 3)</p> <p>Award 2 marks for full explanation (both strands). Award 1 mark for partial explanation.</p> <p>Credit alternatives explaining the whole phrase.</p> <ul style="list-style-type: none">• overwhelms / most prominent aspect of / covers (most of) / takes over / occupies a lot of• area / place / land / Antarctica / continent	2
1(b)(ii)	<p><u>Using your own words</u>, explain what the text means by: 'integral part' (lines 5 and 6)</p> <p>Award 2 marks for full explanation (both strands). Award 1 mark for partial explanation.</p> <p>Credit alternatives explaining the whole phrase.</p> <ul style="list-style-type: none">• vital / necessary / essential / crucial / main• bit / component / aspect / feature (of)	2



Question 1a-e.

1(c)	<p>Re-read paragraph 3, ('Ice is ... warming.').</p> <p>Give <u>two</u> reasons why loss of ice in Antarctica is significant.</p> <ul style="list-style-type: none">• <u>(Antarctic) ice</u> reflects large amounts of solar radiation away from Earth / decreases the ability of the Earth's surface to reflect solar radiation / more radiation is absorbed• (loss of ice) affects heat balance / linked to global warming	2
1(d)(i)	<p>Re-read paragraphs 4 and 5, ('While Antarctica... colonies').</p> <p>Identify <u>two</u> reasons why the region is popular for scientific research from lots of different countries.</p> <ul style="list-style-type: none">• no borders / entire continent open• cleanest air in world / neutral data / more reliable data	2
1(d)(ii)	<p>Re-read paragraphs 4 and 5, ('While Antarctica...colonies').</p> <p>Explain why growing numbers of tourists want to visit Antarctica.</p> <p>Award 1 mark for each idea, up to a maximum of 3.</p> <ul style="list-style-type: none">• adventure / more adventurous• cruises (increasingly) affordable / travel there has become cheaper• visit (spectacular) scenery• threatened wildlife (colonies) / endangered animals	3



Question 1a-e.

1(e)	<p>Re-read paragraphs 6 and 7, ('Although nearly ... wherever possible'). Using your own words, explain why the impact of scientists visiting Antarctica may have been worse than that of tourists visiting.</p> <p>Award 1 mark for each idea, predominantly in own words, up to a maximum of 3.</p> <p>Answers which are entirely in the words of the text should not be credited.</p> <ul style="list-style-type: none">• researchers stay longer in Antarctica / there for longer (than tourists)• tourists mainly ship-based / scientists based on the ground• (scientists) build stations / roads and runways built• different kinds of waste generated (by scientists) / waste has not been disposed of responsibly in the past / toxic waste	3
------	---	---



Question 1f.

INDICATIVE READING CONTENT

Candidates may refer to any of the points below:

- 1 limited previous experience
- 2 tough mental challenge
- 3 long distance involved / great distance
- 4 restricted time to complete
- 5 cannot have help of any kind
- 6 has to carry all supplies with her / dragging all her supplies on a sledge
- 7 loneliness / being alone
- 8 (relatively) small physical stature
- 9 finding time to train / training as well as working full-time
- 10 dangerous route / risk of injury
- 11 leaving family / children behind
- 12 raising funds / attracting sponsors
- 13 prejudice / sexist attitudes / lack of support for female explorers

2(a)(i)	<p><u>Identify a word or phrase from the text</u> which suggests the same idea as the <u>words underlined</u>:</p> <p>There were <u>lots of containers</u> of supplies stored in hangars on the base.</p> <p>truckloads of (tinned food) boxes (in huge hangars) (line 7)</p>	1
2(a)(ii)	<p><u>Identify a word or phrase from the text</u> which suggests the same idea as the words underlined:</p> <p>Some scientists <u>regularly went underwater</u> to study animals living beneath the ice.</p> <p>(who) routinely dived (beneath the ice) (line 27)</p>	1
2(a)(iii)	<p><u>Identify a word or phrase from the text</u> which suggests the same idea as the words underlined:</p> <p>The scientists' observations that the climate of the Earth is changing are <u>impossible to prove wrong</u>.</p> <p>irrefutable (steady upward trend) (line 35)</p>	1



Question 2a.

2(a)(iv)	<p><u>Identify a word or phrase from the text</u> which suggests the same idea as the words underlined:</p> <p>There were <u>lots of practice drills</u> to ensure safety.</p> <p>endless rehearsals (drilled into us) (line 42)</p>	1
2(b)(i)	<p><u>Using your own words</u>, explain what the writer means by each of the words underlined:</p> <p>That evening we <u>encountered</u> more Base people – young, fit figures without that fume of the outside that still clung to us. They <u>sported</u> the same padded boiler suits and fleece jackets, and were keen to talk. ‘I don’t call the real world often, it’s best to just live in the bubble,’ <u>confided</u> marine biologist Ben. I said I planned to stay until the very last boat out. ‘Winter here’s long,’ he added.</p> <p>encountered: ran into, met, came upon, came across</p>	1
2(b)(ii)	<p><u>Using your own words</u>, explain what the writer means by each of the words underlined:</p> <p>sported: wore, were wearing, were kitted out in</p>	1
2(b)(iii)	<p><u>Using your own words</u>, explain what the writer means by each of the words underlined:</p> <p>confided: told as if a secret, revealed, divulged, confessed, shared</p>	1



**Question
2a-b.**

- **base people – young, fit figures:** suggests a different kind of people, specific type, separate to others, alien life form; feels inadequate, older and less fit, looking at their characteristics as a group rather than as individuals
- **(without that) fume of the outside still clung to us:** tainted by the scent of the outside; suggests the base is clean, pure as if newcomers are polluting their world / will be cleansed by being on the base
- **sported the same padded boiler suits and fleeces and were keen to talk:** suggests confidence and unity – as if wearing a uniform, all share the same dress code / look the part; interested in newcomers, enthusiastic
- **real world ... bubble:** suggests feel separate from outside society and usual concerns, as if existing in a dream world or parallel universe, living in a protected environment, concerned with only prescribed edges of the base and its concerns, though sense of fragility and ease with which it could be destroyed



**Question
2c.**

Paragraph 1 begins 'Base emitted ...' and is about the narrator's first impressions of the base station in Antarctica.

Overview: pure vast emptiness of the epic landscape; awe-inspiring and intimidating

- **emitted a hushed grandeur:** quiet, still, gives out a signal, broadcasts a powerful sense of silence and stillness, awe and reverence for the place, secretive
- **as if a vault door had been closed, all noise guarded fiercely behind it:** sound of the world seems to have been muffled, disorientating effect of being both locked in and locked out, threat from the noise outside
- **a gunshot-like crack echoed through the air:** unexpected loud sound, shock of the sudden noise, violence of the noise



**Question
2d.**

- **roar like a distant waterfall:** huge noise of a flow of water, powerful, though a long way off can be heard, unstoppable and inevitable threat of disaster
- **(another) chunk of the ice shelf collapsed into the bay:** huge piece of ice has broken off, final and brutal, part of an ongoing pattern, the place is literally breaking up and disintegrating
- **rough squawks of skuas were magnified through the telescope of empty dry air:** calls of birds seem louder as there is little else there, notice them more, realise their importance when there is nothing to detract
- **no smells of soil, trees, nor grass:** completely empty landscape, there's nowhere to hide, nothing growing, barren, reminiscent of the moon or another planet
- **scent of Antarctica:** as if an animal, a creature being hunted
- **like two stones rubbed together. Flint:** the spark to start the fire, sense of imminent destruction; effect of human actions on the planet

Only credit comments on stylistic effect where these are explicitly linked to choices.



**Question
2d.**

Paragraph 13 begins 'Around us ... ' and is about the arrival of winter in Antarctica

Overview: inevitable, unstoppable force of winter approaching

- **(around us) the world was hardening:** water freezing and solidifying, becoming more hostile
- **started as ice flowers, tiny crystal formations:** delicate, fragile patterns in frozen water, beautiful
- **creeping carpet of flowers knitted together:** gradually being covered by ice; individual crystals float to the surface, accumulate and bond together, sense of magical or living force



**Question
2d.**

- **soaked by seawater:** contrasts with the beauty of initial images, suggests heavy and cold, deadening effect on emotions
- **grey gruel, thickening into porridge:** unappetising, gloopy substance, reminiscent of prison
- **temperatures plummeted:** became suddenly very cold, breathtaking drop in temperature
- **(porridge-ice) welded itself together like steel grinding:** change of state from liquid to solid is complete, ice is hard and powerful, metallic sound, industrial
- **gathering darkness:** long difficult winter ahead, brooding menace
- **continent was closing in on itself, locking itself in:** imprisoned by winter, natural process, shutting the rest of the world out

Only credit comments on stylistic effect where these are explicitly linked to choices.



**Question
2d.**



Question 3.

A1: the different kinds of jobs available at Base station and what activities each job might involve

- **scientists** (det. involved in ice-coring team, Xavier, field work, laboratory work) [dev. ground-breaking research, important lessons to be learned]
- **marine biologists** (det. diving with seals and orcas, Ben) [dev. adventurous, brave]
- **mechanics / engineers** (det. planes, ski equipment, sewage treatment plant, generators) [dev. keeping the place running]
- **pilots / air traffic control** (det. transporting scientists to and from field camps) [dev. incredible views from air, challenge of landing planes safely]
- **cooks** (det. tinned food) [dev. difficult to get fresh supplies, lots of people to feed]



Question 3.

A2: what day to day life will be like when they first arrive at Base and once they have settled in

- **field training** (det. learning to: abseil into a crevasse, get out and rescue someone, break our fall with an ice-axe, erect pyramid tents, cook on camp-stoves, and load a sledge) [dev. out of comfort zone]
- **learning** (det. lectures) [dev. inspirational, new perspectives, expert opinion]
- **briefings** (det. drills, mishaps) [dev. more dangerous in winter, could be fatal]
- **expeditions / group trips** (det. collecting water samples) [dev. contributing to research]
- **keeping fit / exercise /** (det. walks) [dev. freedom to go off and explore (until Winter approaches)]
- **social life** (det. cards, no Wi-Fi) [dev. need to adjust, have to make own entertainment]



Question 3.

A3: Challenges / rewards of Antarctica

- **separation from the outside world** (det. long way from civilisation, bubble) [dev. peaceful, break from modern life (pressures)]
- **cold / exposure** (det. long winter) [dev. danger of being stranded if last boat does not get through]
- **(dangerous) animals** (det. leopard seals, orcas) [dev. being in their world]
- **depression / loneliness** (det. no animals, no children) [dev. few changes of personnel / limited social group / can build close friendships, can lead to sense of family/group]
- **landscape / ravines** [dev. experience of living in Antarctica changes you as a person, inspirational]
- **awareness of the health of the planet** (det. carpet of ice is fragile; chunks fall off glaciers) [dev. understand the implications of global warming, safety concerns]



GOOD LUCK!
SEE YOU SOON!

