

**General Certificate of Secondary Education
Geography A**

Unit A671: *Extreme Environments*

Specimen Paper

F

J380

Time: 1 hour

Candidates answer on the question paper.

**Additional materials:
Resource Booklet**

Candidate
Forename

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Candidate
Surname

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Centre
Number

--	--	--	--	--	--	--	--	--	--

Candidate
Number

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INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do not write in the bar codes.
- Do not write outside the box bordering each page.
- Write your answer to each question in the space provided.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **50**.
- You will be awarded marks in questions 3(b) and 4(b)(ii) for the quality of written communication of your answer.

FOR EXAMINER'S USE	
1	
2	
3	
4	
TOTAL	

This document consists of **8** printed pages.

Section A – Hot Deserts and Extreme Environments generallyAnswer **all** questions

- 1 (a) Name **ONE** hot desert environment that you have studied.

.....
..... [1]

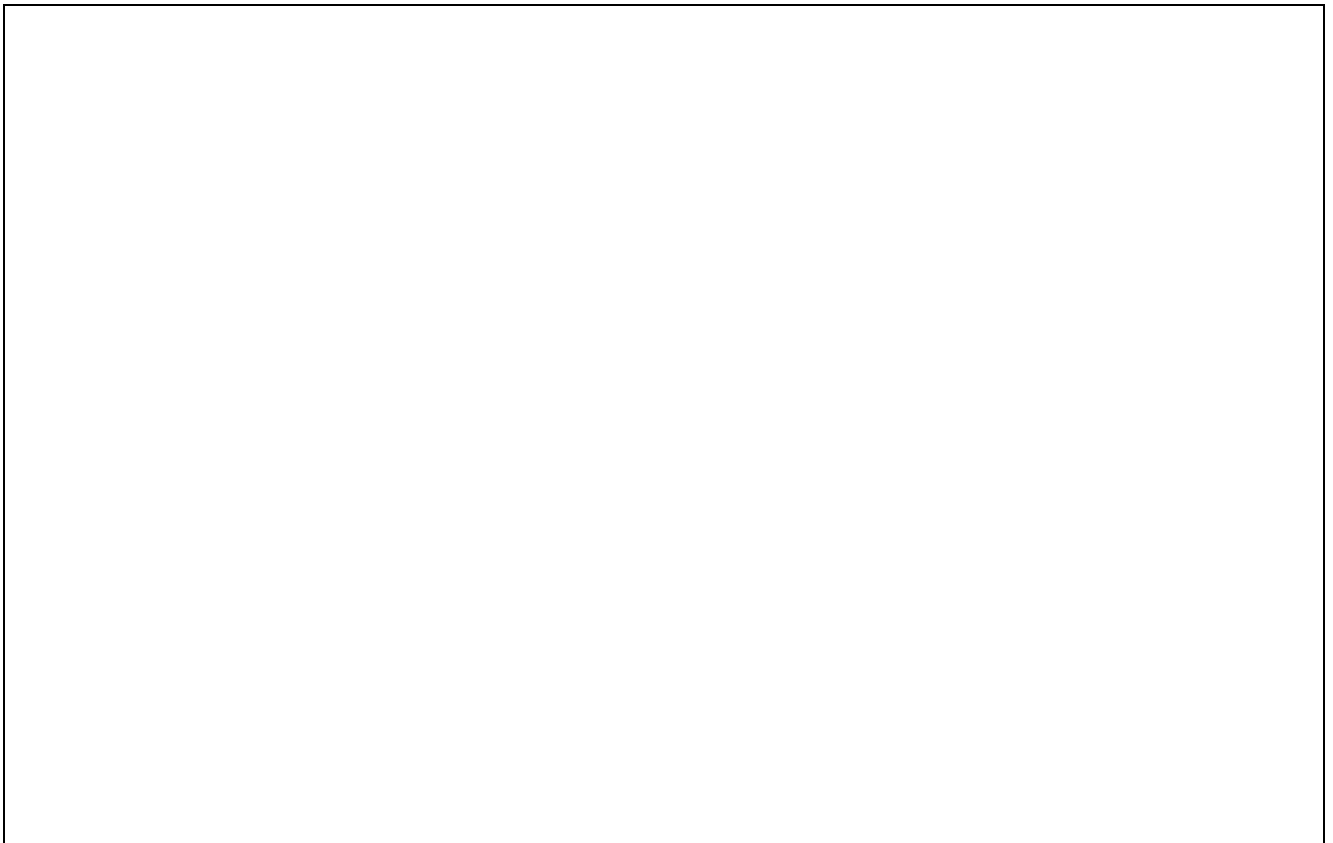
- (b) State **TWO** reasons why that desert environment is defined as 'extreme'.

1.....
.....
2.....
..... [2]

- (c) Name and describe **ONE** physical process and resulting landform that may occur in a hot desert environment.

You may draw a diagram to help you.

.....
.....
.....



[4]

(d) Deserts are hot and dry areas. Study **Fig. 1** and **Fig. 2** in the separate Resource Booklet.

(i) Describe the key features of the climate using **Fig. 1**.

Temperature.....

.....

.....

Rainfall

.....

..... **[4]**

(ii) Explain why desert areas are hot and dry.

Hot.....

.....

.....

Dry.....

.....

..... **[4]**

(e) Study **Fig. 2**.

Explain how vegetation can survive in the hot, dry desert climate.

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.....

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.....

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..... **[4]**

- 2 (a) The following statements explain how desertification can happen. They are not in the correct order.

Put numbers in the boxes to complete the correct order of the statements.

The first one has been done for you.

The soil becomes loose

Soil is blown away

Less rain falls for a number of years

The soil becomes dry

The land turns to desert

[2]

- (b) Explain **ONE** problem caused by desertification for each of the following:

The Environment

.....

.....

.....

.....

People

.....

.....

.....

..... [4]

Section A Total [25]

Section B – Your chosen extreme environment

Your answers in this section must refer to **either** a polar environment **or** a mountain environment.

Circle the extreme environment you have studied: polar mountain

3 (a) State **THREE** reasons why your chosen environment is 'extreme'.

- 1.....
- 2.....
- 3..... **[3]**

(b) Explain why your extreme environment is challenging for local people **and** visitors.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[6]**

(c) You have been asked to organise an expedition to your chosen extreme environment. State **FOUR** items that you would have to take in order to survive. Give **ONE** reason for each choice.

Item		Reason
1		
2		
3		
4		

[4]

- 4 (a) Identify **ONE** source of information that you found useful when studying your extreme environment.

Explain why it was helpful.

.....

.....

.....

..... [2]

- (b) (i) Describe how your extreme environment might change in the future. Give reasons for your answer.

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..... [4]

- (b) (ii) Give **THREE** reasons why it is important to look after your chosen extreme environment.

Reason 1

.....

.....

Reason 2

.....

.....

Reason 3

.....

..... [6]

Section B Total [25]

Paper Total [50]

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Unit A671: *Extreme Environments*

Foundation

Specimen Mark Scheme

The maximum mark for this paper is 50.

Section A - Hot Deserts and Extreme Environments generally		
Question Number	Answer	Max Mark
1(a)	<p>Name ONE hot desert environment that you have studied.</p> <p>Any acceptable desert name.</p>	[1]
1(b)	<p>State TWO reasons why that desert environment is defined as 'extreme'.</p> <p>Any two of the following:</p> <p>High daytime temperatures ✓ low night time temperatures ✓ lack of rainfall ✓ isolation idea ✓ lack of resources idea ✓</p>	[2]
1(c)	<p>Name and describe ONE physical process and resulting landform that may occur in a hot desert environment. You may draw a diagram to help you.</p> <p>Insolation weathering ✓ exfoliation ✓ granular disintegration ✓ onion skin ✓ freeze thaw ✓ chemical weathering ✓</p> <p>Process name relevant and appropriate ✓, accurate description of process relevant and appropriate ✓ and relevant physical feature ✓ with accurate description of way process leads to landform ✓ [1 + 1 + 1+1] either using annotated and accurate diagram and or written text</p>	[4]
1(d)(i)	<p>Deserts are hot and dry areas. Study Fig 1 and Fig 2 in the separate Resource Booklet.</p> <p>Describe the key features of the climate using Fig. 1.</p> <p>Any three valid, descriptive points.</p> <p>E.g. Some months have no precipitation ✓ any NAMED reference to temperature ✓ correlation between temperature and precipitation ✓</p> <p>ALLOW ONE for development (i.e. use of data to exemplify)</p>	[4]
1(d)(ii)	<p>Explain why desert areas are hot and dry.</p> <p>Point marking</p> <p>Hot - e.g. Sun often overhead ✓ lack of cloud cover ✓</p> <p>Dry – e.g. Distance from ocean ✓ offshore winds ✓ often found in rain shadows ✓ high pressure influences ✓</p> <p>Point mark reserve 1 mark for each section. Allow development marks if appropriate.</p> <p>E.g. high pressure influences ✓ therefore descending air/lack of evaporation ✓</p>	[4]
1(e)	<p>Study Fig. 2.</p> <p>Explain how vegetation can survive in the hot, dry desert climate.</p> <p>Point marking</p> <p>1 mark for each explanation (allow additional mark for development if present e.g. spines rather than leaves ✓ to reduce transpiration)</p> <p>Indicative content</p> <p>Store water ✓ long roots ✓ remains dormant when no rainfall ✓ spines rather than leaves ✓</p>	[4]

Section A - Hot Deserts and Extreme Environments generally		
Question Number	Answer	Max Mark
2(a)	<p>The following statements explain how desertification can happen. They are not in the correct order.</p> <p>Put numbers in the boxes to complete the correct order of the statements.</p> <p>The first one has been done for you.</p> <ol style="list-style-type: none"> 1. Less rain falls for a number of years. 2. The soil becomes dry. 3. The soil becomes loose. 4. Soil is blown away. 5. The land turns to desert. <p>TWO or THREE correct ✓ for one mark. FOUR correct ✓✓ for both marks.</p>	[2]
2(b)	<p>Explain <u>ONE</u> problem caused by desertification for each of the following – The Environment, People.</p> <p>Points mark – 1 mark for valid point, 1 mark for development</p> <p>INDICATIVE CONTENT</p> <p>Environment</p> <p>Land exhausted of nutrients ✓ Soil is lost ✓through wind erosion ✓ Crops no longer grow ✓ Overgrazing ✓Nomadic farmers allow grazing on marginal land ✓ Land stripped bare making soil more vulnerable to erosion ✓ More deforestation ✓Vegetation felled – wood for fuel needed ✓ Protective vegetation disappears making soil more vulnerable to erosion ✓</p> <p>People</p> <p>More food needed ✓ Poorer grazing ✓Lower crop production ✓ Underground water reserves used up ✓ Fires ✓ started from ash then becoming out of control ✓ Land stripped bare making soil more vulnerable to erosion ✓less useful for farming/grazing Migration ✓Refugees from civil wars/droughts/persecution ✓ Puts pressure on food/water resources ✓</p>	[4]
Section A Total		[25]

Section B - Your Chosen Extreme Environment		
Question Number	Answer	Max Mark
	<p>Your answers in this section must refer to either a polar environment or a mountain environment.</p> <p>Circle the extreme environment you have studied: polar mountain</p>	
3(a)	<p>State <u>THREE</u> reasons why your chosen environment is 'extreme'</p> <p>Allow any THREE specific references to temperature, aridity/precipitation, relief/topography, isolation, altitude, danger.</p>	[3]
(b)	<p>Explain why your extreme environment is challenging for local people <u>and</u> visitors.</p> <p>Local people: Ideas such as harsh living environment, struggle for survival, possible lack of income, negative impacts of tourism.</p> <p>Visitors: Ideas such as the notion of danger, physical challenge, climatic challenges, clothing/equipment choice.</p> <p>0 marks No evidence submitted or response does not address the question.</p> <p>Level 1 [1-2 marks] Demonstrates limited understanding of evidence with an attempt at explanation. Challenge is identified and described in basic terms. Only ONE challenge mentioned. Challenge is related to local people OR visitors. Written work contains mistakes in spelling, grammar and punctuation, which sometimes hinder communication.</p> <p>Level 2 [3-4 marks] Demonstrates sound understanding of the evidence with clear explanations. Challenges are described with some basic detail together with some explanation. At least TWO challenges mentioned. Challenges relate to local people AND visitors. Written work is legible and spelling, grammar and punctuation are mostly accurate. Meaning is communicated very clearly.</p> <p>Level 3 [5-6 marks] Demonstrates thorough understanding of the evidence with accurate and developed explanations. Challenges are described with explanatory detail, perhaps with specific examples given. At least THREE challenges mentioned. Challenges relate to local people AND visitors. Written work is legible and spelling, grammar and punctuation are accurate. Meaning is communicated clearly.</p>	[6]
(c)	<p>You have been asked to organise an expedition to your chosen extreme environment.</p> <p>State <u>FOUR</u> items that you would have to take in order to survive.</p> <p>Give <u>ONE</u> reason for each choice.</p> <p>Four items with explanation required for each mark. Items may relate to clothing, food, or survival.</p> <p>Indicative content:</p> <p>Warm clothing to avoid chill/frostbite/ to aid survival in sub-zero temperatures ✓</p>	

Section B - Your Chosen Extreme Environment		
Question Number	Answer	Max Mark
	<p>Many layers to trap air to increase insulation ✓</p> <p>Sun glasses prevent eye damage ✓</p> <p>Walking boots for rough terrain ✓</p> <p>Dried food light to carry/relatively easy to cook ✓</p> <p>Energy food to provide body with energy to cope with physical challenge✓</p> <p>Gun/knife for protection from animals ✓</p> <p>GPS for accurate location/tracking ✓</p> <p>Radio to keep in contact in case of emergency ✓ (Mobile phone mark only if well argued)</p> <p>[4x1]</p>	[4]
4(a)	<p>Identify <u>ONE</u> source of information that you found useful when studying your extreme environment. Explain why it was helpful.</p> <p>Description of relevant and appropriate resource (book/magazine/DVD/photograph etc) ✓ for first mark.</p> <p>ONE mark available for reason</p> <p>DVD ✓ had a lot of facts and figures which showed clearly how difficult it was to live there ✓</p> <p>DVD ✓ had images that showed what the landscape was like and it was an up to date resource which meant that it showed the environment as it currently is ✓)</p> <p>[1 + 1]</p>	[2]
4(b)(i)	<p>Describe how your extreme environment might change in the future. Give reasons for your answer.</p> <p>Point marking with ONE development mark available for reasons</p> <p>Migration away from area✓increased isolation ✓fewer jobs✓</p> <p>Growth in tourism✓development of local infrastructure to aid this✓ more job opportunities/less out migration ✓</p> <p>[1 reserved + (1+1+1) OR</p> <p>[1 reserved + (1+1+dev) = [4]</p> <p>Changes may be physical, human, environmental or a combination of each.</p>	[4]

Section B - Your Chosen Extreme Environment		
Question Number	Answer	Max Mark
4(b)(ii)	<p>Give <u>THREE</u> reasons why it is important to look after your chosen extreme environment</p> <p>Reasons for looking after environment may be physical, human, environmental or a combination of each.</p> <p>0 marks No evidence submitted or response does not address the question.</p> <p>Level 1 [1-2 marks]. Demonstrates limited understanding of the issue. ONE or TWO reasons given with little or no development. Reasons are identified and described in basic terms. Written work contains mistakes in spelling, grammar and punctuation, which sometimes hinders communication.</p>	
	<p>Level 2 [3-4 marks]. Demonstrates sound understanding of the issue. TWO or THREE reasons given with basic development. Reasons are identified and described clearly. Written work is legible and spelling, grammar and punctuation are mostly accurate. Meaning is communicated clearly.</p> <p>Level 3 [5-6 marks] Demonstrates thorough understanding of the need to preserve chosen environment. THREE relevant reasons given (ie importance of fragile ecosystems in extreme environment, indigenous peoples, uniqueness of landscape). Full marks given for all reasons fully developed. Written work is legible and spelling, grammar and punctuation are accurate. Meaning is communicated very clearly.</p>	[6]
Section B Total		[25]
Paper Total		[50]

Assessment Objectives Grid (includes QWC)

Question	AO1	AO2	AO3	Total
1(a)	1			1
1(b)	2			2
1(c)	2	1	1	4
1(d)(i)		1	3	4
1(d)(ii)	4			4
1(e)	4			4
2(a)	2			2
2(b)	2	2		4
3(a)	3			3
3(b)	2	4		6
3(c)	2	1	1	4
4(a)	1	1		2
4(b)(i)	1	1	2	4
4(b)(ii)		3	3	6
Totals	26	14	10	50

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