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For Examiner's Use

General Certificate of Education June 2008 Advanced Level Examination



GGA4

# GEOGRAPHY (SPECIFICATION A) Unit 4 Challenge and Change in the Natural Environment

Friday 6 June 2008 9.00 am to 10.30 am

You will need no other materials.
You may use a calculator.

Time allowed: 1 hour 30 minutes

### **Instructions**

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer three questions in the spaces provided: two from Section A and one from Section B.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- Do all rough work in this book. Cross through any work you do not want to be marked.

### **Information**

- The maximum mark for this paper is 90.
- Each question in Section A is worth 15 marks.
- Each question in Section B will be marked out of 30 and multiplied by 2 to give a mark out of 60.
- The marks for questions are shown in brackets.
- Section B of this unit assesses your understanding of the relationship between the different aspects of Geography.
- You are expected to use a calculator where appropriate.
- All questions should be answered in continuous prose where appropriate. You will be marked on your ability to use an appropriate form and style of writing, to organise relevant information clearly and coherently, and to use specialist vocabulary where appropriate. The legibility of your handwriting and the accuracy of your spelling, punctuation and grammar will also be considered.

### Advice

- Where appropriate, sketch maps and diagrams should be used to illustrate answers and reference made to regional examples and case studies.
- You are advised to spend about 30 minutes on Section A and about 60 minutes on Section B.



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Question	Mark	Question	Mark	
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		×2		
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# **SECTION A**

Answer two questions from this section.

1	CO	AST PROCESSES	AND PRO	<b>DBLEMS</b>	Total for th	is question: 15 marks
1	(a)	Outline <b>two</b> process	ses of marin	e erosion.		
			••••••			
			••••••			
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1 (b) Study Figure 1 which shows a stack in the Orkney Islands.

Figure 1





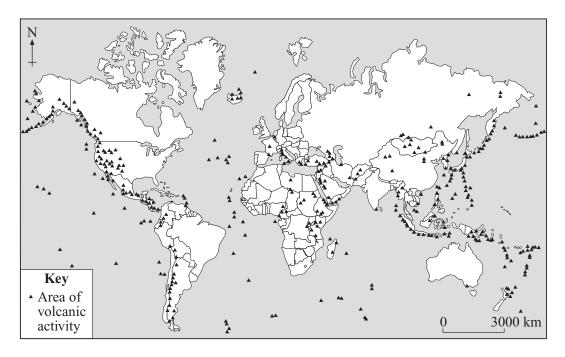
		Suggest the sequence of events leading to the formation of the stack shown	in <b>Figure 1</b> .
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			(4 marks)
1	(c)	To what extent are coastal problems the result of erosional processes?	
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			(7 marks)

# 2 GEOMORPHOLOGICAL PROCESSES AND HAZARDS

**Total for this question: 15 marks** 

Study Figure 2 which shows active and dormant volcanoes.

Figure 2



2	(a)	Describe the distribution of volcanic activity shown in <b>Figure 2</b> .
		(4 marks)



2	(b)	Explain the distribution of volcanic activity shown in <b>Figure 2</b> .
		(4 marks)
2	(c)	Living near any volcano is unwise. To what extent do you agree with this view?
		(7 marks)



3	CO	LD ENVIRONMENTS AND HUMAN ACTIVITY  Total for this question: 15 marks
		ly <b>Figure 3</b> which shows pingos on the Mackenzie Delta in the Northwest itories of Canada.
		Figure 3
		Photograph of a Pingo not reproduced here
		due to third-party copyright constraints.
2	( )	
3	(a)	Describe the characteristics of pingos.
		(4 marks)



<b>3</b> (b)	Explain how pingos are formed.	
		•
		•
		•
		•
	(4 marks)	)
<b>3</b> (c)	Assess the role of temperature fluctuations in periglacial processes.	
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	(7 marks	



### **SECTION B**

Answer **one** question from this section.

Total for this question: 30 marks

### **Note to Candidate**

You should bear in mind that essay Questions 4, 5 and 6 are synoptic in nature. In your response to these questions you are required to show your knowledge and understanding of different aspects of geography, the connections between these different aspects and, where relevant, of human perspectives upon geographical themes and issues.

4 Assess the likely impact of global warming on coastal environments.

(30 marks)

5 Managing the secondary impacts of geomorphological hazards is difficult, managing the primary ones is impossible. To what extent do you agree with this statement?

(*30 marks*)

**6** Glaciated areas have little practical use. To what extent do you agree with this statement?

(30 marks)

## **END OF QUESTIONS**



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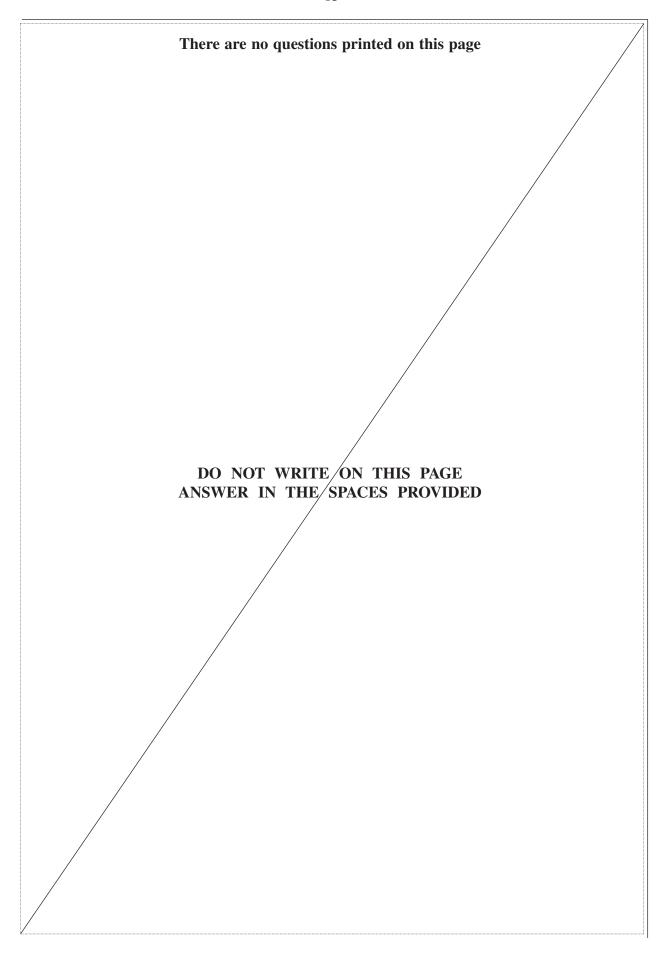


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# There are no questions printed on this page DO NOT WRITE ON THIS PAGE ANSWER IN THE SPACES PROVIDED

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Figure 1: Blom Aerofilms Limited Question 1

Question 2 Figure 2: http://www.volcano.si.edu Smithsonian Institution, Global Volcanism Program

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