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General Certificate of Education June 2005 Advanced Subsidiary Examination

ASSESSMENT and QUALIFICATIONS ALLIANCE

GGA1

GEOGRAPHY (SPECIFICATION A) Unit 1 Core Concepts in Physical Geography

Friday 27 May 2005 Afternoon Session

In addition to this paper you will require: the colour insert (enclosed).

You may use a calculator.

Time allowed: 1 hour

Instructions

- Use blue or black ink or ball-point pen for written answers. You may use pencil for maps, diagrams and graphs.
- Fill in the boxes at the top of this page.
- Answer **three** questions in the spaces provided: **two** from Sections A, B and C and **one** from Section D.
- Each question attempted must be from a different topic area.
- Do all rough work in this book. Cross through any work you do not want marked.

Information

- The maximum mark for this paper is 50.
- Each question in Sections A, B and C is worth 15 marks.
- Each question in Section D is worth 20 marks.
- Mark allocations are shown in brackets.
- You will be assessed 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 degree of legibility of your handwriting and the level of accuracy of your spelling, punctuation and grammar will also be taken into account.
- Answers should relate to your own geographical studies. These may relate to fieldwork.

Advice

• You are advised to spend about 35 minutes on **Sections A–C** and 25 minutes on **Section D**.

	For Exam	iner's Us	е
Number	Mark	Number	Mark
1		7	
2		8	
3		9	
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Total (Column	1)	→	
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Answer **only two** questions from Sections A, B and C. Answer **only one** question from Section D.

SECTION A

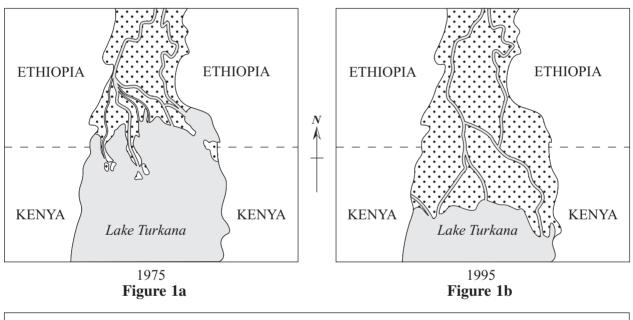
If you choose this section, answer **either** Question 1 **or** Question 2. If you answer a question from this section, you must **not** answer Question 7 in Section D. Each question carries 15 marks.

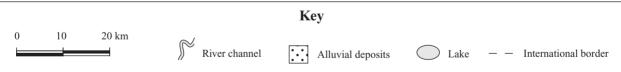
WATER ON THE LAND

1

Total for this question: 15 marks

(a) **Figures 1a** and **1b** show changes to the River Omo Delta, on the northern shore of Lake Turkana, that took place between 1975 and 1995.





Identify three changes to the delta that took place between 1975 and 1995.
1
2
3

(i)

(ii)	Suggest reasons for the changes identified in (a) (i).
	(5 marks)
(b) Wh	y do features of deposition exist throughout the long profile of most rivers?
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	(7 marks)



Total for this question: 15 marks

(a) **Figure 2** shows the variations in discharge over one year measured at gauging stations on two South American rivers. A climate graph for each river basin is also given.

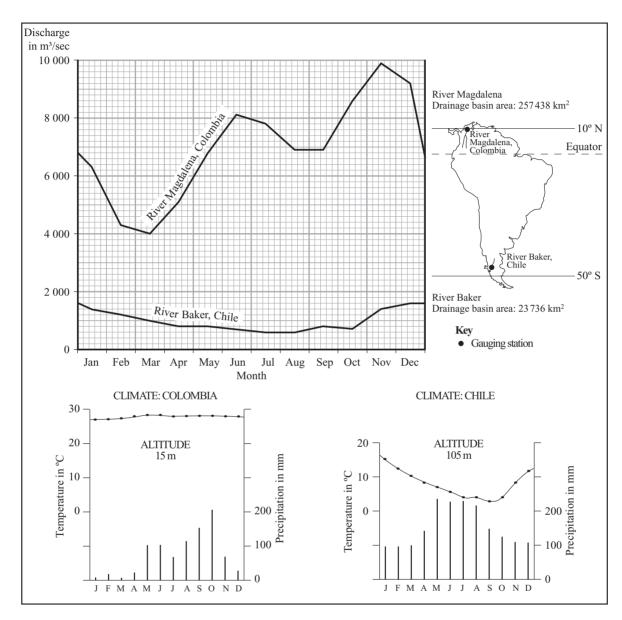


Figure 2

Identify three differences in the pattern of discharge between the two rivers.
1
2
3

2

(ii)	Suggest reasons for the differences identified in (a) (i).
	(5 ma
How	might human activity modify the drainage basin hydrological cycle?
How	might human activity modify the drainage basin hydrological cycle?
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(3 marks)

SECTION B

If you choose this section, answer either Question 3 or Question 4. If you answer a question from this section, you must **not** answer Question 8 in Section D. Each question carries 15 marks.

	 ~	
a i	HAZARDS	CHANCE

CLI	MATI(C HAZARDS AND CHANGE
3		Total for this question: 15 marks
		e 3 shows the locations of reported sightings of tornadoes experienced in the USA on 2003.
		Map showing the locations of reported sightings of tornadoes experienced in the USA on 4 May 2003 - not reproduced here, due to third-party copyright constraints.
	(a)	Describe the pattern shown in Figure 3 .

	Outline the meteorological causes of tornadoes.
• •	
	(5 marks
U	Using examples, contrast the impact of tornadoes with that of tropical revolving storms
• •	
• •	
• •	



4

Total for this question: 15 marks

Figure 4 is a collection of extracts, adapted from news bulletins, relating to the dry weather conditions in Western Europe during the summer of 2003.

Extracts adapted from news bulletins, relating to the dry weather conditions in Western Europe during the summer of 2003 - not reproduced here, due to third-party copyright constraints.

(a)	Classify the different types of impact shown in Figure 4 .
(b)	Outline the atmospheric processes responsible for drought conditions.

	(5 marks)
(c)	Examine the impact of drought in the Sahel.
	(7 marks)



TURN OVER FOR THE NEXT QUESTION

SECTION C

If you choose this section, answer **either** Question 5 **or** Question 6. If you answer a question from this section, you must **not** answer Question 9 in Section D. Each question carries 15 marks.

ENERGY AND LIFE

5

Total for this question: 15 marks

(a) **Figure 5** is a kite diagram, showing the results of vegetation quadrat sampling along a sand dune system in south Devon.

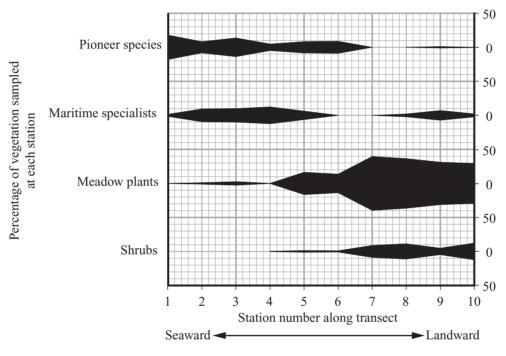


Figure 5

Describe the changes in the vegetation shown in Figure 5 .	
	(3 marks)

	(ii)	Suggest the reasons for the changes identified in (a) (i).
		(5 marks)
(b)	Evan	nine the circumstances that lead to the development of a plagioclimax.
(0)	Exam	time the circumstances that lead to the development of a plagfochmax.
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	•••••	(7 marks)



		10tal for this question: 15 marks
(a)	Figu	res 6a and 6b (insert) show two soil types.
	(i)	State the differences between the appearance of the soils in Figures 6a and 6b.
		(2 1)
		(3 marks)
	(ii)	Suggest reasons for the differences between the soils.
		(5 marks)

6

(b)	Outline the processes responsible for the development of one zonal soil that you have studied.
	(7 marks)



TURN OVER FOR THE NEXT QUESTION

SECTION D

Answer **one** question from this section; **either** Question 7 **or** Question 8 **or** Question 9, on the lined pages that follow.

7 WATER ON THE LAND

You must **not** answer Question 7 if you have answered a question from Section A.

Examine the physical factors responsible for flooding.

(20 marks)

8 CLIMATIC HAZARDS AND CHANGE

You must **not** answer Question 8 if you have answered a question from Section B.

Why are we encouraged to 'think globally, act locally' in relation to global warming?

(20 *marks*)

9 ENERGY AND LIFE

You must **not** answer Question 9 if you have answered a question from Section C.

Identify and explain the unique characteristics of **one** global biome that you have studied. (20 marks)

END OF QUESTIONS

QUESTION NUMBER	Write the question number in the left-hand margin.
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Question 2: Figure 2: Data from RivDis1.0 Vörösmarty et al, 1996.

Question 3: Figure 3: Courtesy NOAA/NESDIS/NCDC US Department of Commerce.

Question 4: Figure 4: Reprinted with permission of the Associated Press.

'Drought leaves Europe's farmers helpless', by Alex Kirby, BBC News, news.bbc.co.uk

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