

ADVANCED SUBSIDIARY GCE GEOGRAPHY A

2680

The Physical Environment

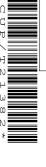
FRIDAY 25 MAY 2007

Afternoon

Time: 1 hour 15 minutes



An Insert is enclosed with this question paper.



Candidate Name							
Centre Number				Candidate Number			

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre Number and Candidate Number in the boxes above.
- Answer all the questions.
- Use blue or 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.
- Do not write in the bar code.
- 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 Insert contains maps and diagrams for use with questions.
- The total number of marks for this paper is 100.
- You will be awarded marks for the quality of written communication where an answer requires a piece of extended writing.
- Even where not specifically asked for, credit will be given for sketch maps and diagrams, provided they illustrate your answer.

For Examiner's Use			
Qu.	Mark		
1			
2			
3			
4			
Total			

This document consists of 10 printed pages, 2 blank pages and an Insert.

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[Turn over

Hydrological Systems

1	(a)	(i)	Study Fig.1, a storm hydrograph. Identify the characteristics A, B and C.
			A =
			B =
			C =[3]
		(ii)	State and explain two reasons why afforestation might increase the lag time.
			[6]
	(b)		e and explain two ways in which human activities might affect the stores of water in a ned drainage basin.

(c)	Fig. 2 shows details of two drainage basins, the River Dart in the South West of England and the River Meon, in the South of England.							
	Using Fig. 2, explain why the hydrographs for the Rivers Meon and Dart differ after a similar rainfall event.							
	[10]							

[Total: 25]

Ecosystems

Fig.	3 sh	lows a cross section through a sand dune sequence.
(a)		te and explain two ways in which the growth of vegetation may modify the environment nd in sand dunes.
4.		[6]
(b)		scribe and explain two ways in which vegetation has adapted to the sand dune ironment.
		[6]
(c)	(i)	What is meant by the term 'plagioclimax'?
		[2]
	(ii)	What is meant by the term 'dominance'?
		[2]

(d)	For a named sand dune ecosystem, describe and explain the impact of human activities on the soil and vegetation.
	[10]

[Total: 26]

Atmospheric Systems

3

Fig.	4a a	and Fig. 4b show incoming and reflected solar radiation and albedo for different surface	s.
(a)	(i)	Using Fig. 4a, describe what happens to incoming solar radiation.	
	(ii)	Using Fig. 4b, describe and explain how albedo might influence local energy budgets.	
			.
(b)	Sug	ggest two ways in which the local energy budget differs between night and day.	.[~]
			.[4]

(c)	Using examples, describe and explain how human activity can modify local energy budgets.
	[10]

[Total: 24]

Lithosphere

Stu	udy F	ig. 5, which shows a clay cliff at Criccieth Beach, North Wales.
(a)	(i)	What is meant by the term 'mass movement'?
		[2]
	(ii)	What type of mass movement is likely to have happened in Fig. 5?
		[1]
	(iii)	Suggest why mass movement has occurred on the cliff.
		[6]
	(iv)	Biological action and wetting-drying are two weathering processes active on the cliff. Explain these processes.
		[6]

(b)	Using examples, describe and explain how human activity can influence slope stability.
	[10]

[Total: 25]

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