

**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.



* GCE / T 21382 *

Candidate
 Name

Centre
 Number

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Candidate
 Number

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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.

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.

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..... [6]

(b) State and explain **two** ways in which human activities might affect the stores of water in a named drainage basin.

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Ecosystems

2 Fig. 3 shows a cross section through a sand dune sequence.

(a) State and explain **two** ways in which the growth of vegetation may modify the environment found in sand dunes.

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(b) Describe and explain **two** ways in which vegetation has adapted to the sand dune environment.

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(c) (i) What is meant by the term 'plagioclimax'?

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.....[2]

(ii) What is meant by the term 'dominance'?

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.....[2]

Atmospheric Systems

3 Fig. 4a and Fig. 4b show incoming and reflected solar radiation and albedo for different surfaces.

(a) (i) Using Fig. 4a, describe what happens to incoming solar radiation.

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(ii) Using Fig. 4b, describe and explain how albedo might influence local energy budgets.

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(b) Suggest **two** ways in which the local energy budget differs between night and day.

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Lithosphere

4 Study Fig. 5, which shows a clay cliff at Criccieth Beach, North Wales.

(a) (i) What is meant by the term 'mass movement'?

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(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.

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(iv) Biological action and wetting-drying are two weathering processes active on the cliff. Explain these processes.

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