



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Advanced Subsidiary Level and Advanced Level

GEOGRAPHY

9696/02

Paper 2 Advanced Physical Options

October/November 2007

1 hour 30 minutes

Additional Materials: Answer Booklet/Paper

READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **two** questions only. Each question answered **must** be from a different topic.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.

All the Figures, the Photograph and the Table referred to in the questions are contained in the Insert.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **3** printed pages, **1** blank page and **1** Insert.



Tropical environments

Only **one** question may be answered from this topic.

- 1 (a) Describe the process of laterisation and explain its influence upon soils in the tropics. [10]
- (b) In developing policies for the sustainable management of **one** tropical ecosystem, explain which characteristics of the physical environment need most consideration. [15]
- 2 (a) Fig. 1 shows the formation of an etchplain.
Describe the processes that produce such an etchplain and briefly describe the landforms produced. [10]
- (b) Explain how climate has influenced the development of vegetation and soils in **either** the humid **or** the seasonally humid tropics. [15]

Coastal environments

Only **one** question may be answered from this topic.

- 3 (a) Explain the conditions that are required for the formation of coral reefs. [10]
- (b) Describe the sources, transportation and deposition of coastal sediments. Illustrate your answer by reference to examples of the coastal landforms that are produced by these processes. [15]
- 4 (a) Photograph A shows landforms developed in a high energy coastal environment.
Draw a labelled diagram to show the main features of the coastal landforms and describe what influences their formation. [10]
- (b) To what extent have human activities affected natural processes in the management of coastal areas you have studied? [15]

Hazardous environments

Only **one** question may be answered from this topic.

- 5 (a) Under what circumstances are volcanic eruptions hazardous? [10]
- (b) Explain which areas are most at risk from hurricanes. Describe the main hazards that are produced by the passage of a hurricane/tropical storm. [15]
- 6 (a) Table 1 shows the causes of and deaths from some major landslides.
With the help of Table 1, explain how landslides occur and may become hazardous. [10]
- (b) Using an example (or examples), explain the extent to which it is possible to manage the human occupation of a hazardous environment. [15]

Arid and semi-arid environments

Only **one** question may be answered from this topic.

- 7 (a) Describe and explain the climates that are characteristic of deserts and semi-arid areas. [10]
- (b) Describe the nature of climatic change that has occurred in arid areas since the Pleistocene. What impact has climatic change had upon desert landforms? [15]
- 8 (a) Fig. 2 shows the nutrient cycles of desert and semi-arid areas.
Describe the differences between the two nutrient cycles and explain the impact such nutrient cycles have upon the productivity of the biomasses. [10]
- (b) Describe the main processes of transportation and deposition in desert areas. Illustrate your answer by reference to desert landforms. [15]

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Question 2 Fig. 1 © John Small; *Geomorphology and Hydrology*; Longman; 1989.
Question 4 Photograph A Ian Robinson © UCLES.

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