



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

GEOGRAPHY

9696/02

Paper 2 Advanced Physical Options

May/June 2008

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 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) With the help of a diagram, describe the vegetation structure of the tropical rainforest. [10]
 (b) To what extent is it possible to identify a tropical climate? [15]
- 2 (a) Fig. 1 shows the nutrient cycle of the tropical rainforest.
 With reference to Fig. 1, explain why the biomass is the largest nutrient store. [10]
 (b) To what extent have both erosion and weathering contributed to the development of granite landforms in the humid and sub-humid tropics? [15]

Coastal environments

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

- 3 (a) Outline the contribution of wave refraction and longshore drift to coastal deposition. [10]
 (b) Explain and assess the merit of theories concerning the formation of coral atolls. [15]
- 4 Fig. 2 shows some processes operating on cliffs in a temperate location.
 (a) Explain the processes that are affecting the cliffs shown on Fig. 2. [10]
 (b) Describe and evaluate the success of methods that might be employed to protect coastlines. [15]

Hazardous environments

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

- 5 (a) Using diagrams, explain how tropical storms (hurricanes) are produced. [10]
- (b) Explain where tropical storms (hurricanes) are most frequently hazardous and, using examples, describe the nature of the hazards that they produce. [15]
- 6 (a) Fig. 3 shows the volcanoes that form a continental volcanic arc in the Cascade Range of North America.
- Explain how such volcanoes are formed. [10]
- (b) Describe the types of hazardous materials produced by volcanic eruptions. Using examples, explain the effects that these erupted materials can have upon people in areas surrounding volcanoes. [15]

Arid and semi-arid environments

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

- 7 (a) Giving examples, explain why arid areas are arid. [10]
- (b) Explain how vegetation in arid and semi-arid areas has adapted to these environments. [15]
- 8 (a) Figs 4A and 4B show the hydrological response to rainfall in arid areas.
- Explain how the nature of rainfall in arid areas affects stores and flows within the hydrological system. [10]
- (b) Describe and evaluate one or more schemes that promote sustainable management of arid or semi-arid areas. [15]

Copyright Acknowledgements:

Question 4 Fig. 2 © Curriculum Press Ltd www.curriculum-press.co.uk

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.