



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 2008

1 hour 30 minutes

Additional Materials: Answer Booklet/Paper

* 3 7 1 3 5 4 1 6 4 8 *

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) Explain how vegetation found in humid and seasonally humid tropics is adapted to its climatic environment. [10]
- (b) How may the removal of forest cover in the tropics affect the rates of weathering, erosion and mass movement? What are the likely effects upon landforms? [15]
- 2 (a) Fig. 1 shows a generalised soil profile in the humid tropics.
Explain why such soils characteristically have a low content of organic matter, a richness of iron and aluminium and a vigorous process of leaching. [10]
- (b) To what extent is sustainable development possible in **either** the tropical rainforest **or** the savanna? [15]

Coastal environments

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

- 3 (a) Outline how waves are generated and explain the effects of constructive and destructive waves on the shapes of beaches. [10]
- (b) Describe the factors that affect the rates of erosion and weathering of cliffs. Using examples, show how these factors can influence the shape of cliff profiles. [15]
- 4 (a) Fig. 2 shows a coastal spit and its dunes and saltmarsh.
Briefly explain how these landforms shown on Fig. 2 have developed. [10]
- (b) Why can spits, dunes and saltmarshes be regarded as fragile landforms?
Describe and evaluate actions that might be taken to preserve coastal features such as these. [15]

Hazardous environments

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

- 5 (a) Explain the circumstances in which slopes may be regarded as hazardous environments. [10]
- (b) Evaluate the methods that might be used to reduce the risks of hazards associated with slopes. [15]
- 6 (a) Fig. 3 shows the location of the 2004 earthquake in the Indian Ocean and the areas worst affected by the tsunami it generated.
- Briefly explain how such earthquakes are caused and how a tsunami is produced. [10]
- (b) Describe the hazardous effects of tsunamis and suggest ways by which they might be predicted and their effects limited. [15]

Arid and semi-arid environments

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

- 7 (a) Describe the physical characteristics of arid and semi-arid environments that make them difficult environments for occupation by humans and animals. [10]
- (b) Using an example or examples, describe and evaluate attempts that have been made to overcome the difficulties you have identified in (a). [15]
- 8 Fig. 4 shows a cross section of a desert piedmont.
- (a) Identify the landforms marked A-E and give a brief description of each one. [10]
- (b) Explain how the landforms you have identified in (a) have been formed. To what extent are they the product of past or present processes? [15]

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Question 6 Fig. 3 © Curriculum Press www.curriculum-press.co.uk

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