



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

GEOGRAPHY

9696/23

Paper 2 Advanced Physical Options

October/November 2012

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 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 and explain the differences between the humid and monsoon climates in the tropics. [10]
- (b) Table 1 shows some factors that affect the ecology of tropical rainforests. Explain the extent to which these factors might affect the management of areas that have been cleared of forest. [15]
- 2 (a) Describe the characteristics of soils found in the humid tropics (tropical rainforest). Explain how soil forming processes have produced these types of soil. [10]
- (b) Explain the nature of weathering processes in humid tropical areas and describe their influence on the development of granite landforms. [15]

Coastal environments

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

- 3 (a) Explain how weathering, rock type and rock structure influence the erosion and form of coastal landforms. [10]
- (b) Fig.1 shows managed natural retreat as a form of coastal management. Describe the operation of this type of management and assess its effectiveness compared with other forms of coastal management. [15]
- 4 (a) Describe constructive and destructive waves and explain their effects upon the shape of beaches. [10]
- (b) Describe and explain the formation of tombolos, offshore bars, barrier beaches and coastal dunes. To what extent can these coastal landforms be changed by physical processes and human activities? [15]

Hazardous environments

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

- 5 (a) Fig. 2 is an excerpt from a newspaper report on one means of predicting volcanic eruptions. Explain how other methods, as well as satellites, can be used for the prediction of volcanic eruptions. [10]
- (b) Describe and explain where and how volcanic eruptions occur. Explain why the materials ejected by volcanoes may be hazardous. [15]
- 6 (a) Explain where and how tropical storms (cyclones) occur. [10]
- (b) Using examples, describe the hazards associated with tropical storms and evaluate the methods that can be used to prevent damage and loss of life. [15]

Arid and semi-arid environments

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

- 7 (a) Describe and explain the characteristics of semi-arid climates. [10]
- (b) Fig. 3 shows the contribution of overgrazing to global desertification by region. How does overgrazing affect desertification? Using examples, explain the extent to which other factors can influence desertification. [15]
- 8 (a) Explain the processes of weathering in hot arid areas and describe their effects upon rocks. [10]
- (b) Using examples, discuss the extent to which landforms in hot arid areas are the product of past erosional and depositional processes. [15]

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Question 3 Figure 1 © Lucy Prentice; *Geofactsheet 195*; Curriculum Press;
Question 5 Figure 2 © *Satellites spot volcano ready to erupt*; The Times; 8 December 1998.
Question 7 Figure 3 © http://www.ifad.org/lrkm/theme/range/arid/arid_2.htm.

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