## 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 2006

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. If you use more than one sheet of paper, fasten the sheets together. 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 and 1 blank page and 1 Insert.



#### **Tropical Environments**

You may answer only **one** question from this topic.

- 1 (a) Illustrating your answer with a diagram, explain the characteristics of **one** soil found in the humid or in the seasonally humid tropics. [10]
  - (b) Describe the vegetation structures that characterise the tropical rainforest and the savanna. Explain why the vegetation structures are different. [15]
- **2** Photograph A shows a landform that is the result of the weathering of granite in a tropical environment.
  - (a) Describe the landform shown and explain the weathering processes that may have produced it. [10]
  - (b) Why is the management of the tropical rainforest ecosystem so difficult? [15]

#### **Coastal Environments**

You may answer only **one** question from this topic.

- 3 (a) Describe the characteristics of constructive and destructive waves. Explain how they can affect the form of beaches. [10]
  - (b) Explain the main factors influencing the form of cliff profiles. [15]
- 4 Fig. 1 shows some features of the Great Barrier Reef in Australia.
  - (a) Describe the main features of the Reef and the physical conditions necessary for such reefs to exist. [10]
  - (b) Why are some coastal areas considered to be fragile environments? Suggest ways in which these environments can be protected. [15]

#### Hazardous Environments

You may answer only **one** question from this topic.

- **5** (a) Where and why are hurricanes (tropical storms) a major hazard? [10]
  - (b) To what extent is it possible to predict the development and path of a hurricane (tropical storm)? What action can be taken to reduce damage and loss of life from hurricanes (tropical storms)? [15]
- **6** Fig. 2 shows the global distribution of earthquake epicentres.
  - (a) Describe and explain the distribution of earthquake epicentres shown on Fig. 2. [10]
  - (b) Explain how earthquakes occur and suggest ways in which their effects can be minimised.

[15]

#### Arid and Semi–Arid Environments

You may answer only **one** question from this topic.

- 7 (a) Describe and explain the operation and effects of wind erosion in hot arid environments. [10]
  - (b) Describe the processes of weathering in hot arid environments. Explain which processes are most effective in causing block and granular disintegration in these environments. [15]
- 8 Fig. 3 shows two types of vegetation found in hot arid environments.
  - (a) Describe the vegetation types shown in Fig. 3 and explain how each has adapted to aridity. [10]
  - (b) To what extent has it been possible for humans to adapt arid and semi-arid environments in order to make them productive? [15]

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Copyright Acknowledgements:

 Photograph A
 R.J. Small © UCLES.

 Question 4
 Fig. 1 © Smithson, Addison & Atkinson (2002) Fundamentals of the Physical Environment, Routledge.

 Question 6
 Fig. 2 © Smithson, Addison & Atkinson (2002) Fundamentals of the Physical Environment, Routledge.

 Question 8
 Fig. 3 © Goudie & Wilkinson (1977) The Warm Desert Environment, Cambridge University Press.

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INSERT

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1 hour 30 minutes

## READ THESE INSTRUCTIONS FIRST

This Insert contains Photograph A and all the Figures referred to in the questions.

This document consists of 4 printed pages.



## Photograph A for Question 2

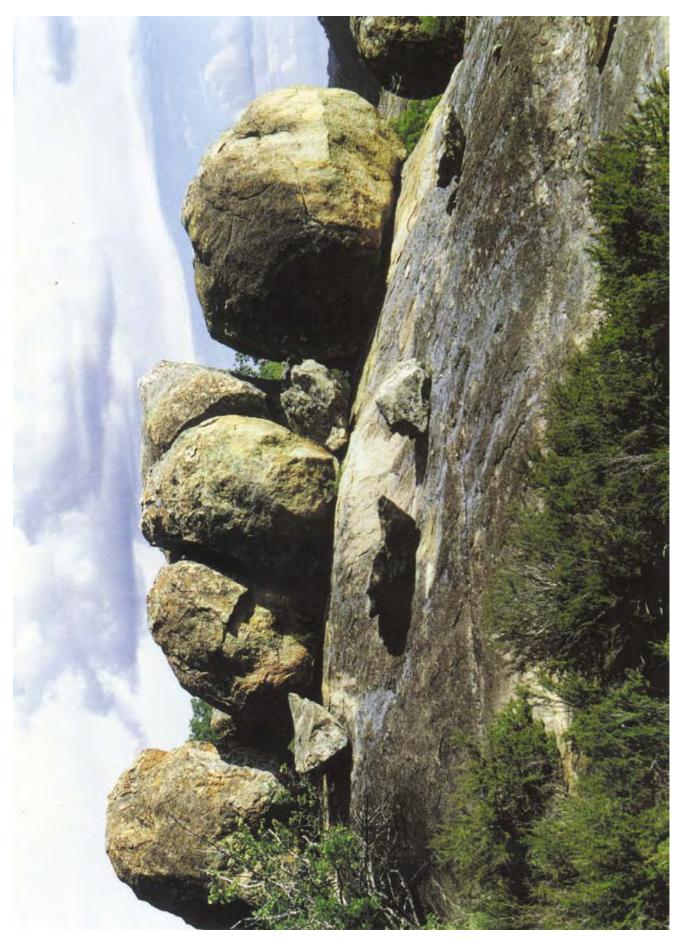


Fig. 1 for Question 4

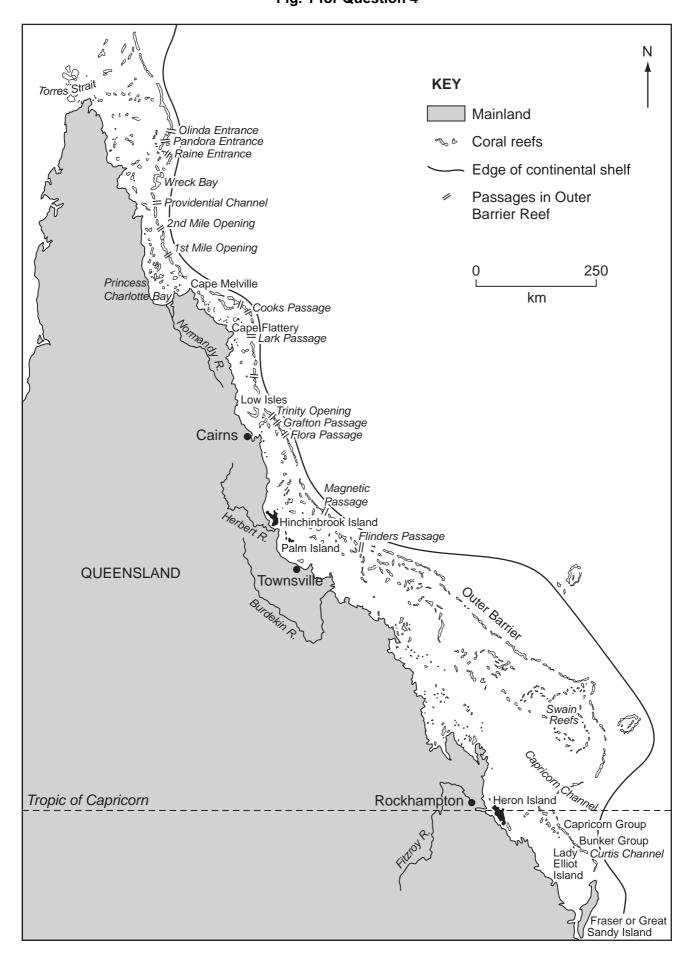


Fig. 2 for Question 6

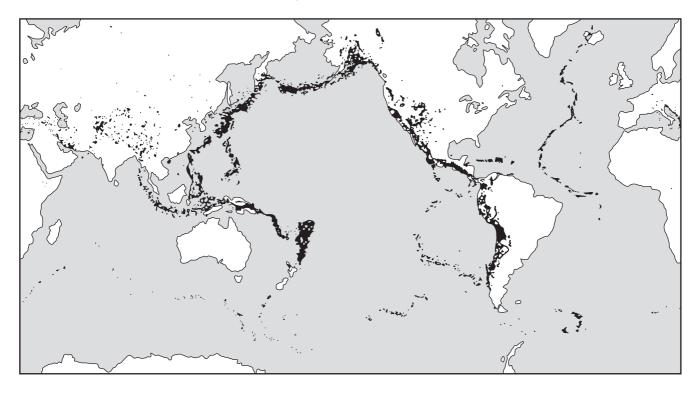
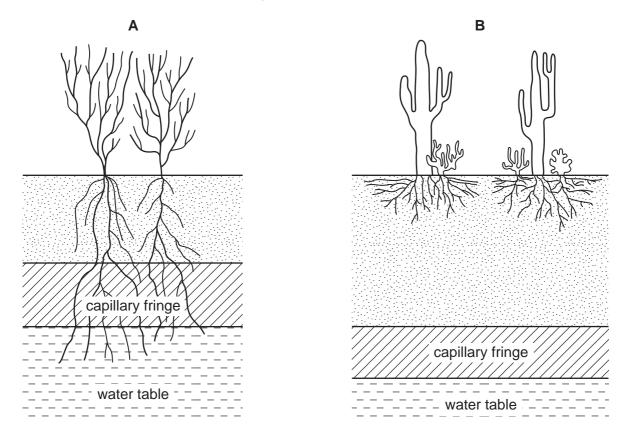


Fig. 3 for Question 8



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