

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

**GEOGRAPHY**

**9696/02, 9696/03**

Papers 2 and 3

October/November 2005

**3 hours**

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 on both sides of the paper. You may use a soft pencil for any diagrams, graphs or rough working. Do not use staples, paper clips, highlighters, glue or correction fluid.

Each paper must be answered on separate answer papers/answer booklets.

Answer **two** questions from Paper 2, Advanced Physical Geography Options. Each question answered must be from a different topic.

Answer **two** questions from Paper 3, Advanced Human Geography Options. Each question answered must be from a different topic.

At the end of the examination hand in your answers to Paper 2 and Paper 3 separately.

If you use more than one sheet of paper, fasten the sheets together.

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

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.

You are advised to spend no more than 1 hour 30 minutes on each paper.

All the Figures referred to in the questions are contained in the insert.

This document consists of **6** printed pages, **2** blank pages and an insert.



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**PAPER 2: ADVANCED PHYSICAL GEOGRAPHY OPTIONS**

Answer **two** questions, each from a different topic.

Start a new answer paper/answer booklet for answering the questions from Paper 2.

Hand in the answer papers/answer booklets for Paper 2 separately from those for Paper 3.

You are advised to spend no more than 1 hour 30 minutes on this paper.

**Tropical environments**

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

- 1 (a) Describe what is meant by *convectonal heating*. Explain how convectonal heating can affect tropical climates. [10]
- (b) Describe the natural vegetational structure of the tropical rainforest. How have human activities affected the structure and type of vegetation in parts of the tropical rainforest? [15]
- 2 (a) Fig. 1 shows some landforms found in limestone (karst) regions of the Tropics. Identify and explain the processes that have produced these landforms. [10]
- (b) Describe the climate, vegetation, soils and nutrient flows of the tropical savanna ecosystem. How have human activities contributed to the development of this ecosystem? [15]

**Coastal environments**

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

- 3 (a) Identify and explain the factors that can influence the development of cliff profiles. [10]
- (b) Using diagrams, explain the formation of:–
- (i) offshore bars,
- (ii) barrier beaches,
- (iii) coastal dunes.
- To what extent can these coastal landforms be protected? [15]
- 4 (a) Describe the development of sea waves and explain how they transport sediment. What are the main sources of the sediment carried by waves? [10]
- (b) Fig. 2 shows some landforms of a cliffed coastline.
- Describe the landforms named on Fig. 2 and explain their formation. [15]

**Hazardous environments**

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

5 (a) Describe the nature and causes of avalanches. [10]

(b) Explain how natural events can produce the following hazards:–

- (i) coastal flooding,
- (ii) severe river floods,
- (iii) landslides.

To what extent is it possible to protect lives and property from the effects of these natural hazards? [15]

6 (a) Explain how and where earthquakes occur. [10]

(b) Fig. 3 shows the effects associated with different levels of earthquake magnitude on the modified Mercalli and Richter scales.

Using examples, explain the relationship between the earthquake effects and the level of earthquake magnitude. How effective have been methods used to reduce the impact of earthquakes on lives and property? [15]

**Arid and semi-arid environments**

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

7 (a) Describe and explain the weathering processes that occur in hot deserts. [10]

(b) Describe the hydrological regimes (water flows and stores) in arid and semi-arid environments. How can human activities affect the hydrological regimes in these areas? [15]

8 (a) Describe the main features of the climates experienced in hot deserts and semi-arid areas. [10]

(b) Fig. 4 shows some landforms found in hot deserts. Describe the landforms named in Fig. 4 and give an explanation of their formation. [15]

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**PAPER 3: ADVANCED HUMAN GEOGRAPHY OPTIONS**

Answer **two** questions, each from a different topic.

Start a new answer paper/answer booklet for answering the questions from Paper 3.

Hand in the answer papers/answer booklets for Paper 3 separately from those for Paper 2.

You are advised not to spend more than 1 hour 30 minutes on this paper.

**Production, location and change**

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

- 9 (a)** Fig. 5 shows changes in the area of agricultural land in China, 1978–96.
- (i) Using Fig. 5, name the region shown to have had,
- A** the greatest percentage increase in agricultural area,
- B** the greatest percentage decrease in agricultural area. [2]
- (ii) To what extent can an east-west pattern be seen in Fig. 5? [4]
- (iii) What further information would you require for a fuller understanding of changes in a region's agricultural land area? [4]
- (b) Evaluate the effects of the intensification of agriculture on people and environment in an area you have studied. [15]
- 10 (a) (i)** Give the meaning of the term *economies of scale* for industry. Explain how economies of scale occur.
- (ii) Give the meaning of the term *diseconomies of scale* for industry. Explain how diseconomies of scale occur. [10]
- (b) To what extent have government policies influenced the location of manufacturing industry in one or more countries you have studied? [15]

**Environmental management**

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

- 11 (a) Fig. 6 shows for world regions in 2002 the percentage of their total energy consumption provided by different sources.
- (i) Using Fig. 6, identify the world region which had the highest percentage consumption of,
- A fossil fuels,
- B renewable energy. [2]
- (ii) How may the physical resources of the regions affect their energy production? [4]
- (iii) Suggest reasons for the relatively high contribution of nuclear energy in Europe and the former Soviet Union. [4]
- (b) Explain some of the issues in the production of electrical energy in **one** country you have studied. To what extent can the production of electrical energy there be considered sustainable? [15]
- 12 (a) What factors may lead to the environmental degradation of **urban** areas in **MEDCs**? [10]
- (b) Using examples, assess the extent to which the disposal of wastes can be considered sustainable. (You may refer to solid, liquid, gas and particulate wastes.) [15]

**Global interdependence**

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

- 13 (a) For **one** country you have studied, describe and explain the **main** changes in its exports since 1960. [10]
- (b) With reference to examples, assess the role of trade agreements in international trade. [15]
- 14 (a) Fig. 7 gives information about eco-tourism in 1998 for states in Canada and USA, North America's two MEDCs.
- What factors may help to explain the variation in policies on eco-tourism and numbers of eco-tourism holidays offered? [10]
- (b) Describe one or more examples of eco-tourism in **LEDCs**. How successful is the development from the point of view of **local** people? [15]

**Economic transition**

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

- 15 (a)** Fig. 8 shows the relationship between social development and economic development for selected countries in 2001. Social development is expressed by an index which combines life expectancy with education (adult literacy and average number of years in school). Economic development is measured by GDP (Gross Domestic Product) per person.
- (i)** Give **one** reason why it is important to study social development and not just economic development. [2]
  - (ii)** Describe the relationship shown between social development and economic development, supporting your answer with information from Fig. 8. [4]
  - (iii)** What are the limitations of using GDP per person to measure economic development? [4]
- (b)** To what extent is the concept of resource endowment helpful in understanding global patterns of economic development? [15]
- 16 (a)** With reference to one or more regions, describe and explain the process of cumulative causation in regional development. [10]
- (b)** Assess the main difficulties for the government in managing the development of **one** country you have studied. [15]



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*Copyright Acknowledgements:*

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Question 11. © BP Statistical Review of World Energy

Question 14. The Encyclopaedia of Ecotourism, © CABI Publishing.

Question 15. © Anatole Kaletsky; The Times; 15 July 2003.

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