# CAMBRIDGE INTERNATIONAL EXAMINATIONS General Certificate of Education Advanced Level

## **GEOGRAPHY**

PAPERS 2 AND 3 Advanced Geography Options 9696/2, 9696/3

**MAY/JUNE SESSION 2002** 3 hours

Additional materials: Answer paper

TIME 3 hours

## INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Each paper must be answered on separate answer papers/answer booklets. At the end of the examination hand in your answers to Paper 2 and Paper 3 separately.

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.

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

### **INFORMATION FOR CANDIDATES**

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

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

Sketch maps and diagrams should be used 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.



## 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 and explain the types of climate that are experienced in the humid tropics and the seasonally humid tropics. [10]
  - (b) Using examples, demonstrate how climate and human activities have contributed to the development of climax and plagio-climax vegetations in the tropics. [15]
- 2 (a) Fig. 1 shows nutrient flows and stores in the tropical rainforest.

Describe and explain the nature and relative size of the stores and flows within the tropical rainforest nutrient cycle. [10]

(b) For either granite areas or limestone areas within the tropics, describe the rock weathering processes that occur and explain the role of those processes in the formation of landforms. [15]

#### **Coastal environments**

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

- 3 (a) Explain how sea waves are generated and describe the nature of constructive and destructive waves.
  [10]
  - (b) Using diagrams, explain the formation of spits and coastal salt marshes. Describe the effects that human activities can have upon these landforms. [15]
- 4 (a) Fig. 2 shows a model of a sediment cell.

Give a reasoned explanation of the model, indicating the nature of the sources and sinks. [10]

(b) With reference to a stretch or stretches of coastline you have studied, explain the problems of coastal management and evaluate their possible solutions. [15]

#### Hazardous environments

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

- 5 (a) Explain why and how rapid mass movements on slopes may be hazardous. [10]
  - (b) With reference to an example or examples, discuss the problems of managing the human occupation of a hazardous environment. [15]
- 6 (a) Fig. 3 shows the occurrence of tropical storms (hurricanes) in the tropics. Explain the formation of tropical storms (hurricanes) and explain where they produce the greatest hazard. [10]
  - (b) Using examples, describe the types and explain the causes of hazards that can result from crustal (tectonic) movements. [15]

#### Arid and semi-arid environments

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

- 7 (a) Describe the surface water and groundwater stores that occur in hot arid areas. [10]
  - (b) How may the water resources available in hot arid areas affect soils, vegetation and human activities? [15]
- 8 (a) Fig. 4A shows the global distribution of deserts and Fig. 4B shows variations from mean annual precipitation.

Describe and explain the distribution of hot deserts in relationship to the variations from mean annual precipitation. [10]

(b) Identify and describe the main erosional processes that have produced the landforms of hot arid areas. To what extent are these processes operating today? [15]

## 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 to spend no more than 1 hour 30 minutes on this paper.

#### Production, location and change

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

- 9 (a) (i) Explain briefly the meaning of the term *land tenure*.
  - (ii) Using examples, describe the influence of land tenure on agricultural land-use and practices. [10]
  - (b) To what extent have attempts to increase the productivity of agriculture been successful in one or more countries you have studied? [15]
- **10 (a) (i)** Give the meaning of the term *industrial agglomeration*. Explain why industrial agglomeration occurs.
  - (ii) Give the meaning of the term *industrial inertia*. Explain why industrial inertia occurs. [10]
  - (b) For **one** country you have studied, assess the influence of government policies (national or local) on the location of its manufacturing industry. [15]

#### Environmental management

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

- **11 (a)** Study Figs 5A and 5B which give information about wind energy generating capacity for the world and for four selected countries, 1980–99.
  - (i) Compare the trends shown in wind energy generating capacity for the United States and for Germany in Fig. 5B with the world trend shown in Fig. 5A.
  - (ii) Suggest reasons why wind power is chosen as a source of energy. [10]
  - (b) Sustainable development has been defined as, 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'.

To what extent can the management of the energy resources of **one** country which you have studied be considered sustainable? [15]

- 12 (a) For one degraded environment you have studied,
  - (i) name and locate the environment,
  - (ii) describe the factors which contributed to its degradation. [10]
  - (b) Assess the extent to which attempts at upgrading the quality of the environment chosen in (a) have been successful. [15]

#### Global interdependence

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

**13 (a) (i)** Explain and illustrate the term *invisible exports*.

Fig. 6 shows relative trade in agricultural, manufactured, fuel and mineral products by value for world regions in 1994.

- (ii) Describe the main features of the trade.
- (iii) Suggest reasons for the size of Western Europe's share in trade in 1994. [10]
- (b) To what extent do former colonial ties help to explain the trade flows and trading patterns of **one** less economically developed country (LEDC) you have studied? [15]
- **14 (a) (i)** Briefly explain the term *multiplier effect* in relation to the development of tourism.

Fig. 7 shows the employment structure of the Mediterranean island of Majorca in 1980 and in 1994.

- (ii) Outline the changes shown on Fig. 7.
- (iii) What other information would you need to develop a fuller understanding of the nature of employment in tourism in Majorca? [10]
- (b) Supporting your answer with examples, explain why reliance on international tourism may be an unstable foundation for a country's economic development. [15]

#### **Economic transition**

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

- **15** (a) Fig. 8 shows the sector model of economic development.
  - (i) Compare the trends in the percentages employed in secondary and in tertiary industries between 1800 and 2100.
  - (ii) Give three examples of the linkages that may exist between primary industries and secondary industries.
  - (iii) Briefly explain the meaning of the term *quaternary industries*. [10]
  - (b) To what extent is it true that the economic consequences of industrialisation are positive but the social and environmental consequences are negative? Support your answer with reference to examples. [15]
- **16 (a) (i)** Outline the process of cumulative causation in regional development.
  - (ii) Explain briefly the action of spread effects and backwash effects. [10]
  - (b) Using examples, assess the extent to which government attempts to develop disadvantaged regions have been successful. [15]

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Question 13. Michael Carr. New Patterns, Process and Change in Human Geography. Published by Nelson. © Michael Carr.

Question 14. M. A. Nash and S. Warn. Core Geography. Published by Addison Wesley Longman.

Question 15. M. Crundwell, D. Horsfall and G. Miller. People, Production and the Environment. Published by Hodder and Stoughton. © M. Crundwell, D. Horsfall and G. Miller.

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