

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
**General Certificate of Education Advanced Level**

**GEOGRAPHY**

**9696/2, 9696/3**

**PAPERS 2 AND 3 Advanced Geography Options**

**OCTOBER/NOVEMBER 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.

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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**

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

- 1 (a) Describe the main factors that influence the formation of soils in tropical environments. Illustrate your answer by reference to at least one tropical soil profile. [10]
- (b) Discuss the extent to which it is possible to successfully manage **either** a tropical rainforest ecosystem **or** a savanna ecosystem. [15]
- 2 (a) Figs 1A and 1B show the development of the Inter Tropical Convergence Zone (ITCZ). Explain the formation of the ITCZ and describe the influence it may have upon precipitation. [10]
- (b) Explain how deep weathering and the stripping of regoliths have influenced the formation of landforms in the humid and seasonally humid tropical environments. [15]

**Coastal Environments**

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

- 3 (a) Describe the processes of marine erosion and explain how these processes can influence the formation of a wave cut platform. [10]
- (b) Describe, with the aid of diagrams, the different types of coral reef. Give a brief explanation of the theories that have been advanced for their formation. [15]
- 4 (a) Fig. 2 shows storm and swell profiles of a beach. Describe and explain the features named on Fig. 2 and account for the differences between the storm and swell profiles. [10]
- (b) Explain how human activities have affected the physical environment in a coastal area or coastal areas you have studied. [15]

### Hazardous Environments

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

- 5 (a) Explain how hurricanes ( tropical storms) and tornadoes are formed.
- (b) Explain the methods used to predict the occurrence of **two** different natural hazards. How successful have such methods of prediction been? [15]
- 6 (a) Fig. 3 shows the distribution of earthquake and volcanic hazards.
- Explain the distribution of earthquake and volcanic hazards and justify which areas you think are most at risk. [10]
- (b) Using examples, explain why natural hazards have more severe effects in some areas than in others. [15]

### Arid and Semi-Arid Environments

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

- 7 (a) Describe and explain the types of weathering that occur in hot arid environments. [10]
- (b) Using an example or examples, explain the physical limitations to human activities in **either** hot arid **or** hot semi-arid environments. In what ways is it possible to overcome these limitations? [15]
- 8 (a) Fig. 4 shows an embayment in a desert pediment.
- Describe the mountain front, pediment and peripediment shown on Fig. 4 and explain their formation. [10]
- (b) Explain how plants, animals and soils have become adapted to hot arid and hot semi-arid environments. [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 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) Fig. 5 gives information on rice yields and irrigated paddy for selected countries in Asia during the Green Revolution in 1966, 1971 and 1974.
- (i) Between 1966 and 1974 which **two** countries experienced the greatest percentage increases in total paddy area irrigated?
  - (ii) Supporting your answer with information from Fig. 5, describe the relationship shown between rice yields and the percentage of total paddy area irrigated.
  - (iii) Suggest what other information is needed to get a better understanding of the productivity of wet-rice cultivation in these countries. [10]
- (b) Discuss the reasons for, and the problems caused by, the extension of the cultivated area in some less economically developed countries (LEDCs). [15]
- 10 (a) Fig. 6 shows the global distribution of export processing zones (EPZs) in 1999.
- (i) Explain the term *export processing zone*.
  - (ii) Describe the main features of the global distribution shown.
  - (iii) Suggest **two** factors which may help to explain the distribution of EPZs in North, Central and South America and the Caribbean. [10]
- (b) With reference to **one** country you have studied, identify the issues restricting the growth of the manufacturing sector and assess the success of the attempted solutions. [15]

**Environmental Management**

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

- 11 (a) (i) Explain the meaning of the terms *renewable* and *non-renewable* in relation to production of energy. [10]
- (ii) Why are renewable resources increasingly regarded as an appropriate source of energy? [15]
- (b) For **one** country you have studied, how true is it that, whilst environmental factors matter, it is economic factors which govern its energy policy? [15]

- 12 Table 1 below gives information about the causes of desertification of land in Northern China in 1998.

**Table 1**

<i>causes of desertification</i>	<i>total area (%)</i>
overcultivation	25.4
overgrazing	28.3
construction, mining and communications	0.7
water conservation	8.3
deforestation	31.8
sand dune advance	5.5

Desertification is the degradation of the environment by the spread of desert conditions into semi-arid grassland, savanna or woodland areas nearby.

- (a) (i) What were the main causes of desertification in Northern China in 1998?
- (ii) Suggest reasons why each cause you identified in (i) occurred.
- (iii) Choose any **one** of the causes of desertification you identified and suggest how its impact could be reduced or stopped. [10]
- (b) For **one** degraded environment you have studied, explain why it is so difficult to improve environmental quality. Evaluate the solutions that have been attempted. [15]

**Global Interdependence**

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

- 13 (a)** For **one** country you have studied,
- (i) outline its main imports and exports,
  - (ii) identify the main factors which influence its involvement in international trade. [10]
- (b)** To what extent are political factors the key to the explanation of inequalities in global trading patterns? [15]
- 14 (a) (i)** Explain the meaning of the term *carrying capacity* in relation to mass tourism and to eco-tourism.
- (ii)** Read the newspaper cutting in Fig. 7A about tourism in the Spanish islands, the locations of which are shown in Fig. 7B. According to the newspaper cutting,
- A** why is the government levying a green tax on tourists,
  - B** what other evidence is given of the impacts of tourism on these islands? [10]
- (b)** With reference to **one** tourist area or resort you have studied, assess the extent to which tourism benefits the **local** society and economy. [15]

**Economic Transition**

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

- 15 (a)** Fig. 8 shows a classification of the services industry (tertiary sector).
- Using examples, describe the varied nature of employment in the services industry in terms of,
- (i) qualifications and training,
  - (ii) numbers employed,
  - (iii) pay,
  - (iv) working conditions. [10]
- (b)** To what extent does the increase in personal wealth in many countries explain the growth of the services industry in their economies? [15]
- 16 (a) (i)** Explain briefly the meaning of the term *regional disparities*.
- (ii)** How can regional disparities be measured? [10]
- (b)** For one country you have studied, evaluate government attempts to spread development more evenly across the different regions. [15]



#### Copyright Acknowledgments

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Question 2. Alison J Millington, Russel D Reading and Andrew C Thompson. Humid Tropical Environments. © Blackwell Publishers.

Question 4. R J Small. Geography and Hydrology. Longman.

Question 9. David B. Grigg. The World Food Problem. Published by Blackwell.

Question 10. Mark Crundwell, David Horsfall and Gil Miller. People, Production and the Environment. Published by Hodder and Stoughton Educational 1999.

Question 14. © Giles Tremlett/*The Times*, 16th August 1999 (<http://www.timesonline.co.uk>).

Question 15. Mark Crundwell, David Horsfall and Gil Miller. People, Production and the Environment. Published by Hodder and Stoughton Educational 1999.

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