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

GEOGRAPHY **9696/01**

Paper 1 Core Geography

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.

Answer **all** questions in Section A.
Answer **one** question from Section B.
Answer **one** question from Section C.

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.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
All the Figures referred to in the questions are contained in the insert.

This document consists of **5** printed pages, **3** blank pages and an insert.

UNIVERSITY of CAMBRIDGE
International Examinations

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Section A

Answer **all** the questions in this section. All questions carry 10 marks.

Atmosphere and weather

1 Fig. 1 shows the variation in night-time temperatures across rural and urban areas.

(a) Describe the variation in temperature shown in Fig 1. [2]

(b) Explain why there are differences in temperature between rural and urban areas. [4]

(c) Describe and explain **one** difference in climate (other than temperatures) between rural and urban areas. [4]

Rocks and weathering.

2 Fig. 2 shows the average depth of regolith (weathered rock) for areas with different climate and vegetation.

(a) Which vegetation area has both the greatest depth of regolith (weathered rock) and the highest precipitation? [1]

(b) What is meant by the term *basal surface of weathering*? [3]

(c) Explain how temperature and precipitation can influence the weathering processes that produce the depth of regolith shown in Fig. 2. [6]

Population change

3 Table 1 shows average death rates for the world and for world regions in 2001.

(a) Give the meaning of the term *death rate*. [2]

(b) Suggest reasons why the average death rate for MEDCs is surprisingly higher than the death rate for LEDCs in Table 1. [3]

(c) Explain why the average death rate in Africa was so high (14 per 1000). [5]

Population change

4 Fig. 3 shows international migration to the United States of America (USA) by source area, 1800-1995.

(a) **(i)** In which decade (ten year period) was total immigration the highest?

(ii) Which source area dominated the USA's immigration in 1980? [2]

(b) What **two** other items of information would you require for a fuller understanding of migration to the USA in Phase 5? Give brief reasons for your choices. [3]

(c) Describe the character of **one** example of **international** migration you have studied and suggest reasons why it happened. [5]

Settlement dynamics

5 Fig. 4 shows the layout of the two ancient cities within Hohot in Inner Mongolia, an autonomous region of northern China.

(a) Compare the layout of the Chinese city with the layout of the Mongol city. [5]

(b) Suggest reasons why the residential segregation of ethnic groups develops within many urban areas. [5]

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Section B: The Physical Core

Answer **one** question only from this section. All questions carry 25 marks.

Hydrology and fluvial geomorphology

6 **(a)** **(i)** Define the terms *evaporation* and *evapotranspiration*. [4]

(ii) Describe the difference between infiltration and percolation. [3]

(b) Draw a labelled diagram to show how water flows through a drainage basin system. [8]

(c) Explain how **three** different drainage basin characteristics can affect river discharge as shown on storm hydrographs. [10]

Atmosphere and weather

7 **(a)** **(i)** Define the terms *atmospheric stability* and *atmospheric instability*. [4]

(ii) Briefly describe the weather associated with atmospheric stability. [3]

(b) **(i)** Draw a labelled diagram to show the '**night-model**' of energy exchange at the earth's surface. [4]

(ii) Explain where and how dew is produced. [4]

(c) Explain the term *greenhouse effect*. How might global warming affect the earth's climate? [10]

Rocks and weathering

8 **(a)** **(i)** Define the terms *flow* and *heave* as they apply to mass movements. [4]

(ii) Describe a rock slide. [3]

(b) With the help of a diagram show how volcanic activity can be associated with a plate margin. [8]

(c) Outline and explain the factors that can influence the form of a slope. [10]

Section C: The Human Core

Answer **one** question only from this section. All questions carry 25 marks.

Population change

9 **(a)** Give the meaning of the term *underpopulation* and describe **one** located example of underpopulation. [7]

(b) Explain why countries may want to reach optimum population. [8]

(c) In the relationship between population and resources to what extent should a resource base be seen as changeable rather than fixed? [10]

Population change / Settlement dynamics

10 **(a)** Describe how urban **pull** factors may encourage rural-urban migration in **LEDCs**. Support your answer with examples. [7]

(b) Using examples, explain where rural migrants are likely to settle in urban areas of LEDCs. [8]

(c) To what extent is the existence of shanty towns a problem that urban authorities cannot solve? [10]

Settlement dynamics

11 **(a)** Outline the characteristic functions of the Central Business District (CBD). [7]

(b) How would you collect and record information about land-use in the CBD, when doing fieldwork in an urban area? [8]

(c) Assess the possible advantages and disadvantages for shops (retail outlets) of locating near the edges of urban areas rather than centrally. [10]

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