



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

GEOGRAPHY

9696/13

Paper 1 Core Geography

October/November 2012

3 hours

Additional Materials: Answer Booklet/Paper

* 5 2 8 7 5 3 0 9 5 9 *

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.

Section A

Answer **five** questions.

Section B

Answer **one** question.

Section C

Answer **one** question.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
All the Figures and the Table 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 **5** printed pages, **3** blank pages and **1** Insert.



Section A

Answer **five** questions from this section. All questions carry 10 marks.

Hydrology and fluvial geomorphology

- 1 Fig. 1 shows the flows and stores of water in a drainage basin.
- (a) (i) Identify the component labelled A. [1]
- (ii) Identify the component labelled B. [1]
- (iii) Identify the component labelled C. [1]
- (iv) Identify the component labelled D. [1]
- (b) Examine the factors that influence the amount of water reaching the groundwater store and the time it takes. [6]

Atmosphere and weather

- 2 Fig. 2 shows the recent trends in global mean surface temperature and snow cover in the northern hemisphere.
- (a) Compare the two trends for the period 1920 to 2000. [4]
- (b) Explain the trend in global mean surface temperature. [6]

Rocks and weathering

- 3 Fig. 3 shows some of the features associated with plate tectonics.
- (a) (i) Identify the feature shown at A. [1]
- (ii) Identify the feature shown at B. [1]
- (iii) Identify the process occurring at C. [1]
- (iv) Identify the type of plate shown at D. [1]
- (b) Explain how volcanoes might be formed at different plate margins. [6]

Population

- 4 Fig. 4 shows the predicted age/sex pyramids for selected world regions in 2025.
- (a) Name the world region shown in Fig. 4 predicted to have:
- (i) the largest population under 15 years of age;
 - (ii) a regressive age/sex structure. [2]
- (b) Describe the differences between the predicted population over 70 years of age in Figs 4A and 4B, using data to support your response. [4]
- (c) Choose **one** of the three world regions shown and suggest the demographic issues it is likely to face in 2025. [4]

Migration

- 5 Fig. 5 shows an extract from a news website about asylum seekers who arrived in Australia by boat in 2010. Asylum seekers who receive official permission to stay in a country are called refugees.
- (a) According to Fig. 5, which country was the origin of the greatest number of asylum seekers? [1]
- (b) Describe the distribution of source areas of asylum seekers shown in Fig. 5. [4]
- (c) Suggest reasons why Australia, an MEDC, may be an attractive destination for refugees. [5]

Settlement dynamics/Migration

- 6 Table 1 shows information about urban populations and the percentage population living in slums in selected countries in Africa, 1990–2010.
- (a) Name the country in Table 1 predicted to have the lowest percentage of urban population living in slums in 2010. [1]
- (b) Compare the growth in urban population in Egypt with the growth in urban population in Nigeria, using data from Table 1 to support your response. [4]
- (c) Suggest **two** reasons why the percentage of people living in slums in many LEDCs is decreasing. [5]

Section B

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

Hydrology and fluvial geomorphology

- 7 (a) (i) Define the terms *abrasion* and *hydraulic action* as they apply to river channels. [4]
- (ii) Briefly explain what is meant by helicoidal flow. [3]
- (b) With the help of diagrams describe the nature and explain the formation of levées and deltas. [8]
- (c) Explain how human activity might lessen the impacts of river floods. [10]

Atmosphere and weather

- 8 (a) (i) Define the terms *temperature inversion* and *environmental lapse rate*. [4]
- (ii) Explain how radiation cooling occurs. [3]
- (b) With the help of a diagram or diagrams explain how a mountain range can lead to the development of precipitation. [8]
- (c) Describe the global pattern of wind systems. Explain how this pattern is produced and why it varies seasonally. [10]

Rocks and weathering

- 9 (a) (i) Define the terms *heave* and *flow* as they apply to mass movement on slopes. [4]
- (ii) Briefly describe a rockfall and explain how it occurs. [3]
- (b) Explain how granite is weathered and how this is influenced by its physical structure and chemical composition. [8]
- (c) Explain how human activities may influence the form and development of slopes. [10]

Section C: The Human Core

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

Population

- 10 (a) (i) Give the meaning of the term *overpopulation*. [3]
- (ii) Describe **two** ways to reduce the problem of overpopulation. [4]
- (b) With the help of examples, explain the causes and the consequences of food shortages. [8]
- (c) How far do you agree that optimum population exists in theory, but not in real life? [10]

Migration/Settlement dynamics

- 11 (a) Compare the causes of rural-urban migration and urban-rural migration. [7]
- (b) For **either** rural-urban migration **or** urban-rural migration, describe the impacts on the rural area(s) affected. [8]
- (c) With reference to **one** rural settlement or rural area, outline some of the issues of its development and evaluate the responses. [10]

Settlement dynamics

- 12 (a) (i) Give the meaning of the term *urban renewal*. [2]
- (ii) Suggest **two** reasons why urban renewal occurs in the central areas of towns and cities. [5]
- (b) With the help of examples, explain why different groups of people live in different residential areas within urban settlements. [8]
- (c) Assess the view that the locations of economic activities in urban areas are moving outwards. [10]

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Copyright Acknowledgements:

- Question 2 Fig. 2 © www.eoearth.org/files/112901_113000/syr_fc40.jpg.
Question 4 Figs 4a, 4b & 4c © ADAPTED: J Weeks; *Population: An Introduction to Concepts and Issues*; Wadsworth; 2008.
Question 5 Fig. 5 © ADAPTED: *Christmas Island Shipwreck Kills Asylum Seekers*; <http://www.bbc.co.uk/news/world-asia-pacific-11997231>;
15 December 2010.
Question 6 Table 1 © ADAPTED: *The State of African Cities 2010*; UN-Habitat; United Nations; 2010.

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