Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

GEOGRAPHY **9696/13**

Paper 1 Core Geography **May/June 2017**

3 hours

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

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, Photographs and the Table referred to in the questions are contained in the Insert.

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 **2** Inserts.

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Section A

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

Hydrology and fluvial geomorphology

1 Fig. 1 shows two storm hydrographs from the same rainfall event.

(a) Describe the main differences between hydrograph A and hydrograph B shown in Fig. 1. [4]

(b) Explain why hydrograph A and hydrograph B shown in Fig. 1 are different. [6]

Atmosphere and weather

2 Fig. 2 shows atmospheric lapse rates.

(a) **(i)** State the atmospheric condition shown in Fig. 2. [1]

(ii) Using data from Fig. 2, describe the DALR shown. [2]

(iii) Describe what would happen to a locally heated, unsaturated parcel of air. [3]

(b) Explain why the SALR and DALR have different rates of cooling as shown in Fig. 2. [4]

Rocks and weathering

3 Photograph A shows a mass movement.

(a) Draw a labelled diagram of the main features of the mass movement shown in Photograph A. [4]

(b) Explain how the mass movement shown in Photograph A could have occurred. [6]

Population

4 Fig. 3 shows life expectancy and GDP per person for 1950, 1980 and 2012.

(a) (i) Describe the relationship between life expectancy and GDP shown in Fig. 3. [3]

(ii) Suggest reasons for the relationship described in **(i)**. [3]

(b) Explain why life expectancy is increasing faster in many LEDCs than it is in MEDCs. [4]

Migration

5 Table 1 shows the top 10 countries of origin and destination for international migrants in 2010.

(a) (i) Name **one** country that is in Table 1 both as an origin and as a destination. [1]

(ii) Calculate the net migration for Russia using the data in Table 1. [2]

(b) Suggest **two** reasons why a country might be both a major origin and a major destination for international migration. [3]

(c) Explain why some countries limit immigration. [4]

Settlement dynamics

6 Photograph B shows part of the city of Bangkok, Thailand, an LEDC in Asia in 2015.

(a) Draw a sketch diagram of the area shown in Photograph B and label the main features. [6]

(b) Explain why there is limited housing in Central Business Districts (CBDs). [4]

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Section B: The Physical Core

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

Hydrology and fluvial geomorphology

7 **(a)** **(i)** Define the hydrological terms *throughflow* and *stemflow*. [4]

(ii) Briefly describe how river channels may be classified. [3]

(b) With the aid of a diagram, explain how vegetation affects drainage basin stores and flows. [8]

(c) To what extent does understanding flood recurrence help predict and prevent flooding? [10]

Atmosphere and weather

8 **(a)** **(i)** Define the terms *sensible heat transfer* and *latent heat transfer*. [4]

(ii) Briefly explain how land and sea breezes form during the day. [3]

(b) With the aid of a diagram, explain how latitude can affect the global energy budget. [8]

(c) 'Urban effects on climate are more significant during the day than at night.'

How far do you agree? [10]

Rocks and weathering

9 **(a)** **(i)** Define the weathering terms *exfoliation* and *oxidation*. [4]

(ii) Briefly describe the process of freeze-thaw weathering. [3]

(b) Explain the relationship between the rate of chemical weathering and climate. [8]

(c) 'Subduction is the most important factor in the formation of landforms at convergent plate margins.'

How far do you agree? [10]

Section C: The Human Core

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

Population

10 (a) (i) Outline the main characteristics of the population in Stage 3 of the demographic transition model (DTM). [3]

(ii) Suggest **two** reasons for the level of the death rate in Stage 3 of the DTM. [4]

(b) Explain why the DTM does not apply well to many LEDCs. [8]

(c) 'Controlling natural increase is the best way to manage population change.'

To what extent do you agree with this statement? [10]

Migration

11 (a) (i) Define the term *push factor*. [2]

(ii) Outline the main constraints and obstacles that limit migration. [5]

(b) Explain why pull factors are often inaccurate or exaggerated when making the decision to migrate. [8]

(c) To what extent is international migration caused mainly by push factors rather than by pull factors? [10]

Settlement dynamics

12 (a) Outline the characteristics of **one** named shanty town or squatter settlement. [7]

(b) Explain why shanty towns or squatter settlements frequently develop in LEDCs. [8]

(c) For your case study of a shanty town or squatter settlement, evaluate the success of attempts to overcome its difficulties. [10]

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