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**GEOGRAPHY**

**9696/12**

Paper 1 Core Geography

**May/June 2016**

**3 hours**

No Additional Materials are required.

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**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.  
The Photograph and all the Figures 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.

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This document consists of **5** printed pages, **3** blank pages and **2** Inserts.

## Section A

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

### Hydrology and fluvial geomorphology

- 1 Photograph A shows a meander. Letters **X**, **Y** and **Z** show three positions within the river channel.
- (a) Using Photograph A, state the position where:
- (i) erosion is dominant; [1]
  - (ii) deposition is dominant. [1]
- (b) With the aid of a diagram, explain why the line of fastest velocity (thalweg) is **not** always found in the middle of the channel. [3]
- (c) Explain how the transport of material within a river channel varies with velocity and discharge. [5]

### Atmosphere and weather

- 2 Fig. 1 shows some components which may change as a result of global warming.
- (a) Using Fig. 1:
- (i) state **two** components which would be expected to increase during global warming; [2]
  - (ii) state **two** components which would be expected to decrease during global warming. [2]
- (b) Explain **two** ways in which human activity may contribute to an increase in the rate of global warming. [6]

### Rocks and weathering

- 3 Fig. 2 shows features associated with a plate boundary.
- (a) (i) Name the type of plate boundary shown in Fig. 2. [1]
- (ii) Name the feature found at **A**. [1]
- (iii) Name the process occurring at **B**. [1]
- (b) Explain why earthquakes may occur in the area shown in Fig. 2. [3]
- (c) Explain how fold mountains are formed, such as those shown in Fig. 2. [4]

**Population**

- 4 Fig. 3 shows the death rate for an LEDC, 2000–13.
- (a) Describe how the death rate shown in Fig. 3 changes over time. [3]
- (b) Suggest **two** reasons why the death rate may suddenly increase in a country. [2]
- (c) Explain why life expectancy is increasing in many countries. [5]

**Population/Migration**

- 5 Fig. 4 shows the age/sex pyramid for international immigrants in a small town in an MEDC in 2013.
- (a) (i) Identify **two** features of the age/sex pyramid shown in Fig. 4. [2]
- (ii) Outline **two** possible impacts on the town of the arrival of the immigrants shown in Fig. 4. [4]
- (b) Explain the main benefits to migrants of international migration. [4]

**Migration/Settlement dynamics**

- 6 Fig. 5 shows the location of the top 20 fastest growing world cities by world region in 2000 and 2013.
- (a) (i) Name the world region shown in Fig. 5A which had the largest proportion of cities with the fastest growth. [1]
- (ii) Identify **two** main differences between Fig. 5A and Fig. 5B. [2]
- (b) Give **two** reasons why cities in MEDCs are growing at a slow rate. [2]
- (c) Explain some of the effects of urban growth on surrounding rural areas. [5]

**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 *throughfall* and *stemflow*. [4]  
(ii) Describe the difference between the porosity and permeability of a soil. [3]  
(b) With the aid of a diagram or diagrams, explain the formation of a delta. [8]  
(c) How far do you agree that droughts are caused by human activity? [10]

**Atmosphere and weather**

- 8 (a) (i) Define the terms *relative humidity* and *absolute humidity*. [4]  
(ii) Briefly explain the formation of mist. [3]  
(b) With the aid of a diagram, explain how conditional instability occurs in the atmosphere. [8]  
(c) Explain the extent to which the climate varies within an urban area. [10]

**Rocks and weathering**

- 9 (a) (i) Define the weathering terms *oxidation* and *hydrolysis*. [4]  
(ii) Briefly describe how limestone is weathered by carbonation. [3]  
(b) With the aid of a diagram or diagrams, explain the formation of island arcs and ocean ridges. [8]  
(c) Explain the extent to which temperature affects the weathering of granite. [10]

### Section C: The Human Core

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

#### Population

- 10 (a) Draw the age/sex pyramid for a country at Stage 4 of the demographic transition model and label its main features. [7]
- (b) Explain the factors that influence the shape of age/sex pyramids. [8]
- (c) Assess how populations can adjust to a population ceiling. [10]

#### Migration/Settlement dynamics

- 11 (a) (i) Define the term *push factors*. [2]
- (ii) Suggest reasons why more men than women migrate within many countries. [5]
- (b) Explain the factors which act as constraints on international migration. [8]
- (c) 'The impact of international migration on receiving areas is always negative.'  
How far do you agree? [10]

#### Settlement dynamics

- 12 (a) Describe the main characteristics of a shanty town (squatter settlement). [7]
- (b) Explain why shanty towns (squatter settlements) develop around or within many cities in LEDCs. [8]
- (c) To what extent are inner city areas in MEDCs in rapid decline? [10]





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