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**GEOGRAPHY**

**9696/13**

Paper 1 Core Geography

**October/November 2015**

**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.

All the Figures and the Photograph 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 Fig. 1 shows the main features of the hydrological system of a drainage basin.
- (a) Using Fig. 1:
- (i) Name the store labelled A. [1]
  - (ii) Name the flow labelled B. [1]
  - (iii) Name the flow labelled C. [1]
  - (iv) Name the flow labelled D. [1]
- (b) Explain the factors that influence the amount of water reaching the groundwater store. [6]

**Atmosphere and weather**

- 2 Fig. 2 shows the global surface air pressure (in mb) for the month of July.
- (a) Using Fig. 2, state:
- (i) the highest pressure; [1]
  - (ii) the lowest pressure. [1]
- (b) Describe the location of low pressure areas shown in Fig. 2. [2]
- (c) Explain the pattern of global surface air pressure shown in Fig. 2. [6]

**Rocks and weathering**

- 3 Photograph A shows a mass movement.
- (a) With the aid of a diagram, identify the main features of the mass movement shown in Photograph A. [4]
- (b) Explain the factors that may affect slope instability. [6]

### Population

- 4 Fig. 3A shows natural increase rates in South America, by country, in 2011. Fig. 3B identifies the countries of South America.
- (a) Using Figs. 3A and 3B:
- (i) State the natural increase rate for Chile. [1]
  - (ii) Describe the distribution of the countries with a natural increase rate over 1.5%. [3]
- (b) Explain why natural increase rates may vary between countries. [6]

### Migration/Settlement dynamics

- 5 Fig. 4 shows variation in internal migration with age in an MEDC between 2001 and 2011.
- (a) Describe how migration changes with age in Fig. 4. [3]
- (b) Suggest **two** reasons for the changes you described in (a). [4]
- (c) Describe **one** impact on a rural area of an outflow of young people. [3]

### Settlement dynamics

- 6 Fig. 5 shows the average house price in an inner city area of an MEDC between 1970 and 2010.
- (a) Describe the changes shown in Fig. 5. [3]
- (b) Suggest **two** reasons for the changes you described in (a). [3]
- (c) Explain why many cities in LEDCs have low value housing (squatter settlement) on their outer edges. [4]

**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 fluvial terms *traction* and *suspension*. [4]  
(ii) Briefly describe the conditions under which rivers deposit their sediment load. [3]
- (b) With the aid of labelled diagrams, explain the formation of an:  
(i) oxbow lake;  
(ii) alluvial fan. [8]
- (c) Explain why high rainfall events may **not** always lead to river flooding. [10]

**Atmosphere and weather**

- 8 (a) (i) Define the terms *solar radiation* and *earth (terrestrial) radiation*. [4]  
(ii) Briefly explain how **one** type of fog occurs. [3]
- (b) Explain how human activities contribute to global warming. [8]
- (c) Describe and explain the extent to which the features of an urban area can affect its climate. [10]

**Rocks and weathering**

- 9 (a) (i) Define the weathering terms *pressure release* and *carbonation*. [4]  
(ii) Briefly explain the weathering process of wetting and drying. [3]
- (b) With the aid of a labelled diagram, explain the formation of landforms at the convergent (destructive) plate margin formed by the meeting of two oceanic plates. [8]
- (c) Explain how granite is weathered and examine the extent to which this is influenced by its physical structure and chemical composition. [10]

### Section C: The Human Core

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

#### Population

- 10 (a) (i) Draw a labelled diagram to show the features of stage 3 of the demographic transition model. [3]
- (ii) Explain the features you have shown in (a)(i). [4]
- (b) Describe the possible consequences of total population exceeding the resources in an area. [8]
- (c) To what extent does resource development result from technology and innovation? [10]

#### Migration/Settlement dynamics

- 11 (a) (i) Outline the main **pull** factors in rural-urban migration. [4]
- (ii) Describe **two** ways in which these pull factors might be unrealistic. [3]
- (b) Outline why **push** factors in rural-urban migration may differ in their importance between LEDCs and MEDCs. [8]
- (c) 'Cost is the greatest barrier to migration.' How far do you agree? [10]

#### Settlement dynamics

- 12 (a) (i) Give the meaning of the term *gentrification*. [3]
- (ii) Outline **two** reasons why gentrification occurs in many cities in MEDCs. [4]
- (b) Explain why the provision of services is changing in rural areas. [8]
- (c) Evaluate the responses to the issues caused by **either** rural growth **or** rural decline. [10]





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