

**GEOGRAPHY**

**9696/13**

Paper 1 Core Geography

**May/June 2015**

**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 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.

## Section A

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

### Hydrology and fluvial geomorphology

- 1 Fig. 1A shows drainage basin diagrams for two catchments with different drainage densities. Fig. 1B shows hydrographs for the different drainage densities.
- (a) (i) State the drainage density for the drainage basin labelled A. [1]
- (ii) Identify the hydrograph (C or D) that could describe the discharge for the drainage basin with drainage density B. [1]
- (b) Using Fig. 1A and Fig. 1B, explain the impact of drainage density on the shape of the storm hydrograph. [2]
- (c) Describe and explain how soils and vegetation might affect flows and stores within a drainage basin. [6]

### Atmosphere and weather

- 2 Fig. 2 shows the three changes in atmospheric moisture.
- (a) Name the processes in Fig. 2 labelled:
- (i) J, [1]
- (ii) K. [1]
- (b) State and briefly describe the process occurring at L. [3]
- (c) Using Fig. 2, describe and explain processes which contribute to the formation of precipitation. [5]

### Rocks and weathering

- 3 Fig. 3 shows features associated with processes of plate movement.
- (a) Using Fig. 3, identify the features labelled:
- (i) W, [1]
- (ii) X. [1]
- (b) Using Fig. 3, identify the processes labelled:
- (i) Y, [1]
- (ii) Z. [1]
- (c) Explain the formation of mountain ranges and island arcs. [6]

**Population/Migration/Settlement dynamics**

- 4 Table 1 shows natural increase (%) and urban population (%) for selected countries in 2011.
- (a) Describe the relationship between natural increase and urban population shown in Table 1. [2]
- (b) Suggest **two** reasons for the relationship you described in (a). [3]
- (c) Explain the possible impacts on a **rural** area of a high rate of natural increase. [5]

**Migration**

- 5 Fig. 4 shows the destinations, by distance, of migrants from a city in an MEDC.
- (a) Describe the main features shown in Fig. 4. [2]
- (b) Suggest **two** reasons for the features you described in (a). [3]
- (c) Explain the factors that might limit the ability of people to migrate. [5]

**Settlement dynamics/Migration**

- 6 Fig. 5 shows the percentage (%) of urban population and rural population with access to improved sanitation in selected countries in 2011.
- (a) Describe the main features shown in Fig. 5. [2]
- (b) Suggest **two** reasons for the features you described in (a). [3]
- (c) Using examples, explain how differences in quantity and quality of services influence rural-urban migration. [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 *throughflow* and *baseflow*. [4]  
(ii) Briefly explain groundwater recharge. [3]
- (b) With the aid of a diagram, describe the ways in which precipitation reaches a river channel. [8]
- (c) Using examples, explain the extent to which human activities may lead to low flows and reduced stores in a drainage basin system. [10]

**Atmosphere and weather**

- 8 (a) (i) Define the atmospheric terms *convection* and *orographic uplift*. [4]  
(ii) Briefly explain how heat is transferred by ocean currents. [3]
- (b) With the aid of a diagram, explain the global pattern of wind. [8]
- (c) Describe global warming. To what extent might global warming bring about climate change? [10]

**Rocks and weathering**

- 9 (a) (i) Define the terms *flows* and *slides* as they apply to mass movement on slopes. [4]  
(ii) Briefly describe how flows can affect the shape of slopes. [3]
- (b) Explain the influence of climate on the weathering of rocks. [8]
- (c) Assess the extent to which human activities can affect the stability of slopes. [10]

### Section C: The Human Core

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

#### Population

- 10 (a) (i) Define the term *fertility rate*. [3]
- (ii) Outline **two** factors that affect the levels of fertility in a population. [4]
- (b) Explain how economic development influences death rates. [8]
- (c) To what extent does increased life expectancy result in both benefits and problems for LEDCs? [10]

#### Migration/Settlement dynamics

- 11 (a) (i) Give the meaning of the term *intra-urban migration*. [2]
- (ii) Give **two** reasons for intra-urban migration. [5]
- (b) Outline the main reasons why migration may increase as a country develops. [8]
- (c) To what extent can governments influence migration? [10]

#### Settlement dynamics

- 12 (a) (i) Give the meaning of the term *world city*. [3]
- (ii) Outline **two** causes of the growth of world cities. [4]
- (b) Describe the advantages and disadvantages for a country of urban growth. [8]
- (c) 'Urbanisation is very difficult to reduce in an LEDC.' How far do you agree? [10]





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