

GEOGRAPHY

Paper 1 Core Geography

9696/12

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 Photographs 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 Photograph A shows a river channel.
- (a) Name the type of channel shown in Photograph A. [1]
- (b) Draw a diagram of the channel shown in Photograph A labelling its main features. [4]
- (c) Explain how channels such as that shown in Photograph A are formed. [5]

Atmosphere and weather

- 2 Fig. 1A shows the proportions of greenhouse gases in the atmosphere that result from human activities. Fig. 1B shows the proportions of different human activities that produce greenhouse gases.
- (a) (i) Calculate the total percentage of carbon dioxide shown in Fig. 1A. [1]
- (ii) Name the human activity that results in the greatest percentage of greenhouse gas emissions shown in Fig. 1B. [1]
- (b) Using Figs 1A and 1B, briefly describe the relationship between agriculture and the production of greenhouse gases. [3]
- (c) Explain how an increase in greenhouse gases can lead to global warming. [5]

Rocks and weathering

- 3 Fig. 2 shows a boundary between two tectonic plates.
- (a) Using Fig. 2:
- (i) Name the type of tectonic plate marked A. [1]
- (ii) Name the type of tectonic plate marked B. [1]
- (iii) Name the landform marked C. [1]
- (iv) Name the landform marked D. [1]
- (b) Explain the processes occurring and the landforms produced at the type of plate boundary shown in Fig. 2. [6]

Population

- 4 Fig. 3 shows total fertility rates for selected countries in South-east Asia, 1970–2010.
- (a) State the total fertility rate shown in Fig. 3 for Brunei Darussalam in 1985. [1]
- (b) Describe the trend in total fertility rate for Cambodia, 1970–2010, supporting your response with data from Fig. 3. [3]
- (c) Suggest reasons for declining fertility rates in many countries. [6]

Population/Migration

- 5 Figs 4A and 4B show age/sex pyramids for two countries in the Middle East in 2007.
- (a) Identify **two** features of the age/sex pyramid for Yemen in Fig. 4A. [2]
- (b) Describe the age/sex pyramid for Qatar, supporting your response with evidence from Fig. 4B. [3]
- (c) Suggest the main economic benefits of international migration to Qatar. [5]

Settlement dynamics

- 6 Photograph B shows urban renewal in London Docklands, UK, in 2007.
- (a) Describe the main features of the urban renewal shown in Photograph B. [4]
- (b) Outline **two** reasons why businesses are attracted to locate in developments such as the one shown in the background of Photograph B. [3]
- (c) Suggest **two** reasons why the original residential population from areas of urban renewal may now live in other parts of the city. [3]

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 terms *antecedent moisture* and *evapotranspiration*. [4]
(ii) Briefly explain how percolation occurs. [3]
- (b) Using a diagram, explain how the velocity of water in a river channel can affect transport and deposition of sediment. [8]
- (c) Explain how abstraction of water, building dams and urbanisation might affect the flows and stores of water within a drainage basin. [10]

Atmosphere and weather

- 8 (a) (i) Define the terms *relative humidity* and *absolute humidity*. [4]
(ii) Briefly explain how mist is formed. [3]
- (b) Using a diagram, explain how the Earth's atmosphere is heated during the daytime. [8]
- (c) Describe and explain the pattern of the Earth's pressure belts. To what extent does this pattern change seasonally? [10]

Rocks and weathering

- 9 (a) (i) Define the terms *flow* and *slide* as they apply to mass movement. [4]
(ii) Briefly explain how heave occurs. [3]
- (b) Using diagrams, show how human activities can affect slope stability. [8]
- (c) Explain how climate and rock type contribute to the weathering of rocks. [10]

Section C: The Human Core

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

Population/Migration

- 10 (a) (i) Define the term *underpopulation*. [3]
 (ii) Suggest **two** pieces of evidence that may show that a **rural** area is **overpopulated**. [4]
 (b) Explain how overpopulation can be reduced. [8]
 (c) How far do you agree that the main causes of food shortages are economic? [10]

Migration

- 11 (a) (i) Give the meaning of the term *voluntary migration*. [2]
 (ii) Use examples to explain **two** circumstances in which **forced** migration occurred. [5]
 (b) Describe the types of movements that are known as internal migration. [8]
 (c) To what extent do you agree that it is pull factors that are responsible for voluntary migration? [10]

Settlement dynamics

- 12 (a) (i) Give the meaning of the term *urbanisation*. [3]
 (ii) Outline **two** reasons why the rate of urbanisation is decreasing in many countries. [4]
 (b) Explain the causes and the consequences of spatial competition within urban areas. [8]
 (c) Assess the success of **one** attempt to improve a named shanty town (squatter settlement). [10]

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