



GEOGRAPHY (PRINCIPAL)

Paper 3 Geographical Issues

9768/03

May/June 2016

2 hours 45 minutes

Additional Materials: Answer Booklet/Paper



READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use paper clips, glue or correction fluid.

Answer **five** questions.

Two questions must be answered from **each** of Sections A and B.

One question must be answered from Section C.

Candidates are encouraged to support their answers with appropriate examples, sketch maps and diagrams.

The Insert contains all the Figures referred to in the questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 3 Pre-U Certificate.

This document consists of **4** printed pages and **1** Insert.

Section A

Answer **two** questions from this section.

Tectonic Hazards

- 1 Fig. 1 is a map of volcanic hazards associated with the May 1980 eruption of Mount St Helens, Washington State, USA.

Fig. 2 illustrates some methods of predicting volcanic eruptions.

- (a) Define the term *lahar*. [2]
- (b) Describe the spatial distribution of the hazards shown in Fig. 1. [4]
- (c) Explain the hazards associated with pyroclastic flows. [5]
- (d) Explain how **three** of the methods shown in Fig. 2 assist in predicting volcanic eruptions. [9]

Meteorological Hazards

- 2 Fig. 3 is a drought map for mainland USA, excluding Alaska, 2013.

- (a) State **two** ways of classifying meteorological hazards. [2]
- (b) Describe the pattern of drought intensity shown in Fig. 3. [4]
- (c) Outline the economic impacts of drought. [5]
- (d) Explain how the global distribution of regional scale atmospheric hazards is linked to the global energy budget. [9]

Hydrological Hazards

- 3 Fig. 4 is the storm hydrograph for the flood event of 16th August 2004 at Boscastle, England.

Fig. 5 shows modifications made after the Boscastle 2004 flood event.

- (a) Define the term *permeable* as it applies to soils and rocks. [2]
- (b) Describe the relationship between precipitation and discharge shown in Fig. 4. [4]
- (c) Briefly explain the purpose of the modifications shown in Fig. 5. [5]
- (d) Evaluate the relative importance of short-term and long-term impacts of flooding. [9]

Section B

Answer **two** questions from this section.

Crime Issues

- 4 Fig. 6 shows the percentages of firearms offences in three police force areas and the rest of England with the population percentages of these areas, 2011–12.
- (a) State **two** types of crimes against people. [2]
- (b) Describe the relationship between percentages of firearms offences and population shown in Fig. 6. [4]
- (c) Explain how the causes of crime may be understood in terms of the socio-economic characteristics of the criminals. [5]
- (d) Assess strategies designed to reduce the risk of international crimes. [9]

Health Issues

- 5 Fig. 7 shows the number of confirmed cases of Ebola in West Africa between March and June 2014.
- (a) Identify **two** ways diseases may be spread. [2]
- (b) Describe the variation in confirmed cases of Ebola shown in Fig. 7. [4]
- (c) Outline **two** causes of spatial variations in health. [5]
- (d) Assess the extent to which government action is the most important way of managing the outbreak of a serious disease. [9]

Spatial Inequality and Poverty Issues

- 6 Fig. 8 shows changes in poverty rates in Greater London, 2001–2011.
- Poverty rate is defined as the number of adults claiming out-of-work benefits divided by the total working population.
- (a) Distinguish between relative and absolute poverty. [2]
- (b) Describe the pattern of changes in poverty rate shown in Fig. 8. [4]
- (c) Outline **two** reasons for the emergence of areas of multiple deprivation. [5]
- (d) Assess ways in which investment in infrastructure can reduce poverty and inequality. [9]

Section C

Answer **one** question from this section.

- 7 To what extent are human factors more important than physical factors in determining the geographical issues present in an area you have studied? [25]
- 8 'The impacts of geographical hazards depend on the physical geography of the location affected.'
Discuss the validity of this statement. [25]
- 9 Examine the view that there is an increasing gap between countries at higher and lower levels of development in their ability to respond to the incidence of natural hazards. [25]

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