



GEOGRAPHY (PRINCIPAL)

9768/04

Paper 4 Research Topic

May/June 2017

1 hour 30 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.

Choose Section A **or** Section B **or** Section C, according to your research topic.

Answer **three** questions, from the same section.

You are advised to spend thirty minutes on each Question.

For **Section A**, Retail Patterns, answer:

Question 1, Question 2 and **either** Question 3 **or** Question 4.

For **Section B**, Managing Rural Environments, answer:

Question 5, Question 6 and **either** Question 7 **or** Question 8.

For **Section C**, Fluvial Geomorphology, answer:

Question 9, Question 10 and **either** Question 11 **or** Question 12.

The Insert contains all the Figures and the Photograph referred to in the Question Paper.

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 **7** printed pages, **1** blank page and **1** Insert.

Section A: Retail Patterns

Answer **three** questions:
Question 1, Question 2
and **either** Question 3 **or** Question 4

- 1** Study Fig. 1, which shows annual and forecast changes in rent for retail properties in selected Scottish cities from 2003 to 2018.
- (a)** Giving evidence from Fig. 1, state which city is expected to have a lower change in rent in 2018 than in 2003. [2]
- (b)** Using Fig. 1, compare and contrast the changes in rent between 2009 and 2018 for retail properties in Edinburgh and Glasgow. [4]

Study Fig. 2, which shows floorspace use in the centres of selected Scottish towns and cities in 2013.

- (c)** To what extent are the percentages of convenience goods and comparison goods floorspace use similar between the Scottish towns and cities shown in Fig. 2? [6]
- (d)** A company is looking to set up a large new retail store in the centre of Glasgow. Assess the benefits and limitations of the information provided in Figs. 1 and 2 to the company as they consider their final decision. [8]

- 2 (a) Study Fig. 3A, which shows e-buyers in EU member states as a percentage of the total population aged 16 to 74 in 2015. Fig. 3B shows the EU member states in 2015.

To what extent is there an East–West divide to the distribution shown in Fig. 3A? [5]

- (b) ‘Technological developments are now the dominant cause of changing retail patterns.’

From your wider study of retail patterns, how far do you agree with this statement? [10]

EITHER

- 3 With reference to your own investigation of retail patterns, discuss the extent to which the ways you presented and analysed your findings enhanced your investigation.

Begin by stating the question or hypothesis that you investigated. [15]

OR

- 4 With reference to your own investigation of retail patterns, discuss the criteria you considered when developing the question or hypothesis for your investigation.

Begin by stating the question or hypothesis that you investigated. [15]

Section B: Managing Rural Environments

Answer **three** questions:
Question 5, Question 6
and **either** Question 7 **or** Question 8

- 5 Study Fig. 4, which shows the age structure for large urban and rural areas in Scotland.
- (a) Giving evidence from Fig. 4, state the difference in percentage population between large urban and very remote rural areas for the 16 to 24 age group. [2]
- (b) Describe the similarities and differences in age structure between the three different types of rural areas shown in Fig. 4. [4]
- (c) Study Figs. 5A and 5B. Fig. 5A shows types of rural areas in Scotland. Fig. 5B shows the projected percentage population change from 2006 to 2031 in Scotland.
- Using Figs. 5A and 5B, assess the extent to which there is a link between the types of rural areas and percentage population change in Scotland. [6]
- (d) Assess the value of Figs. 4, 5A and 5B to those responsible for managing population issues in rural areas in Scotland. [8]

- 6 (a) Study Fig. 6, which shows part of North Yorkshire in England.

Using Fig. 6, how far does the map evidence support the view that Hunmanby is at a higher level in the rural settlement hierarchy than Burton Fleming? [5]

- (b) 'Economic and environmental changes result in both gains and losses for rural inhabitants.'

From your wider study of managing rural environments, to what extent do you agree with this statement? [10]

EITHER

- 7 With reference to your own investigation of managing rural environments, discuss the extent to which the ways you presented and analysed your findings enhanced your investigation.

Begin by stating the question or hypothesis that you investigated. [15]

OR

- 8 With reference to your own investigation of managing rural environments, discuss the criteria you considered when developing the question or hypothesis for your investigation.

Begin by stating the question or hypothesis that you investigated. [15]

Section C: Fluvial Geomorphology

Answer **three** questions:
Question 9, Question 10
and **either** Question 11 **or** Question 12

- 9** Study Fig. 7, which shows the relationship between river velocity and grain size.
- (a)** Using Fig. 7, state the river velocity at which grains 0.1 mm in size would be:
- (i)** eroded;
 - (ii)** deposited. [2]
- (b)** Using Fig. 7, describe the relationship between river velocity, grain size and erosion. [4]
- (c)** Study Fig. 8, which shows the roundness index with distance from the source of a river for selected bedload materials.
- The roundness index is a value between 0 and 1, with values nearer to 1 indicating more rounded objects.
- 'Bedload becomes more rounded with distance from the river source.'
- To what extent does Fig. 8 support this statement? [6]
- (d)** Assess the benefits and limitations of the information provided in Figs. 7 and 8 to those investigating downstream changes in the load of rivers. [8]

- 10 (a)** Study Photograph A, which shows part of the River South Tyne in England.

Using the grid (provided on the photograph), identify and locate **three** fluvial landforms shown in Photograph A. [5]

- (b)** 'Fluvial processes are essentially the same throughout a river's course, but landforms in the upper courses of rivers are markedly different to those in the middle and lower courses.'

From your wider study of fluvial geomorphology, how far do you agree with this statement? [10]

EITHER

- 11** With reference to your own investigation of fluvial geomorphology, discuss the extent to which the ways you presented and analysed your findings enhanced your investigation.

Begin by stating the question or hypothesis that you investigated. [15]

OR

- 12** With reference to your own investigation of fluvial geomorphology, discuss the criteria you considered when developing the question or hypothesis for your investigation.

Begin by stating the question or hypothesis that you investigated. [15]

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