

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

For Examiner's Use

General Certificate of Education
January 2009
Advanced Subsidiary Examination



GEOGRAPHY (SPECIFICATION B)
Unit 2 The Physical Options

GGB2

Monday 12 January 2009 9.00 am to 10.00 am

For this paper you must have:

- the colour insert (enclosed).
- You may use a calculator.

Time allowed: 1 hour

Instructions

- Use black ink or black ball-point pen. You may use pencil for maps, diagrams and graphs.
- Fill in the boxes at the top of this page.
- Answer **one** question.
- Choose option **P** or **Q** or **R**.
- Option **P**: Glacial Environments – Page 2.
- Option **Q**: Coastal Environments – Page 10.
- Option **R**: Urban Physical Environments (Temperate Urban Areas) – Page 18.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- Do all rough work in this book. Cross through any work you do not want to be marked.
- Give sketch maps, diagrams and specific examples, where appropriate.

Information

- The maximum mark for this paper is 50.
- The marks for questions are shown in brackets.
- You will be marked on your ability to use an appropriate form and style of writing, to organise relevant information clearly and coherently, and to use specialist vocabulary where appropriate. The legibility of your handwriting and the accuracy of your spelling, punctuation and grammar will also be considered.

For Examiner's Use			
Question	Mark	Question	Mark
P	X	R	X
1		3	
Q	X		
2			
Total (Column 1)		→	
Total (Column 2)		→	
TOTAL			
Examiner's Initials			



Answer the question on Option **P** or **Q** or **R**.

OPTION P: GLACIAL ENVIRONMENTS

1 (a) Explain how each of the following processes operates in glacial environments:

1 (a) (i) Frost shattering

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(4 marks)

1 (a) (ii) Plucking

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1 (a) (iii) Abrasion

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(4 marks)

Question 1 continues on the next page

Turn over ►



1 (b) Describe **one** landform that has been created by glacial erosion.

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(6 marks)

(Extra space)

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1 (d) (i) Describe ways in which glaciers transport moraine.

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(5 marks)

(Extra space)

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- 1 (e) Using **only** an annotated diagram(s), describe **one** example of how ice has caused a river to change its course (drainage diversion).

(7 marks)



Answer the question on Option **P** or **Q** or **R**.

OPTION Q: COASTAL ENVIRONMENTS

2 (a) Explain how each of the following processes operates in coastal environments:

2 (a) (i) Abrasion

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(4 marks)

2 (a) (ii) Hydraulic action

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2 (a) (iii) Sub-aerial processes

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(4 marks)

Question 2 continues on the next page

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2 (b) Describe **one** landform that has been created by coastal erosion.

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2 (c) (ii) Describe **one** landform that has been formed by marine deposition.

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- 2 (d) Using **only** an annotated diagram(s), illustrate factors involved in the development of **either** a sand dune environment **or** a salt marsh environment.

(7 marks)

Question 2 continues on the next page

Turn over ►



Answer the question on Option **P** or **Q** or **R**.

**OPTION R: URBAN PHYSICAL ENVIRONMENTS
(TEMPERATE URBAN AREAS)**

3 (a) (i) Define the term ‘urban heat island’.

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(4 marks)

3 (a) (ii) Explain the causes of urban heat islands.

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Question 3 continues on the next page

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3 (b) (ii) Study **Figure 2**, on the colour insert, which shows the sources of PM10 particulates between 1970 and 2005 in the UK.

Describe the changes shown in **Figure 2**.

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3 (e) Referring to the ecology of urban areas, what is meant by the following terms?

3 (e) (i) Plant succession

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(4 marks)

3 (e) (ii) Distinctive ecology

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3 (f) Using examples, describe how new plant species are deliberately introduced into urban areas.

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END OF QUESTIONS

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Question 3 Figure 1: Source: DEFRA. Reproduced under the terms of the Click-Use Licence.

Question 3 Figure 2: DEFRA/AEA

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Colour Insert

Figure 1

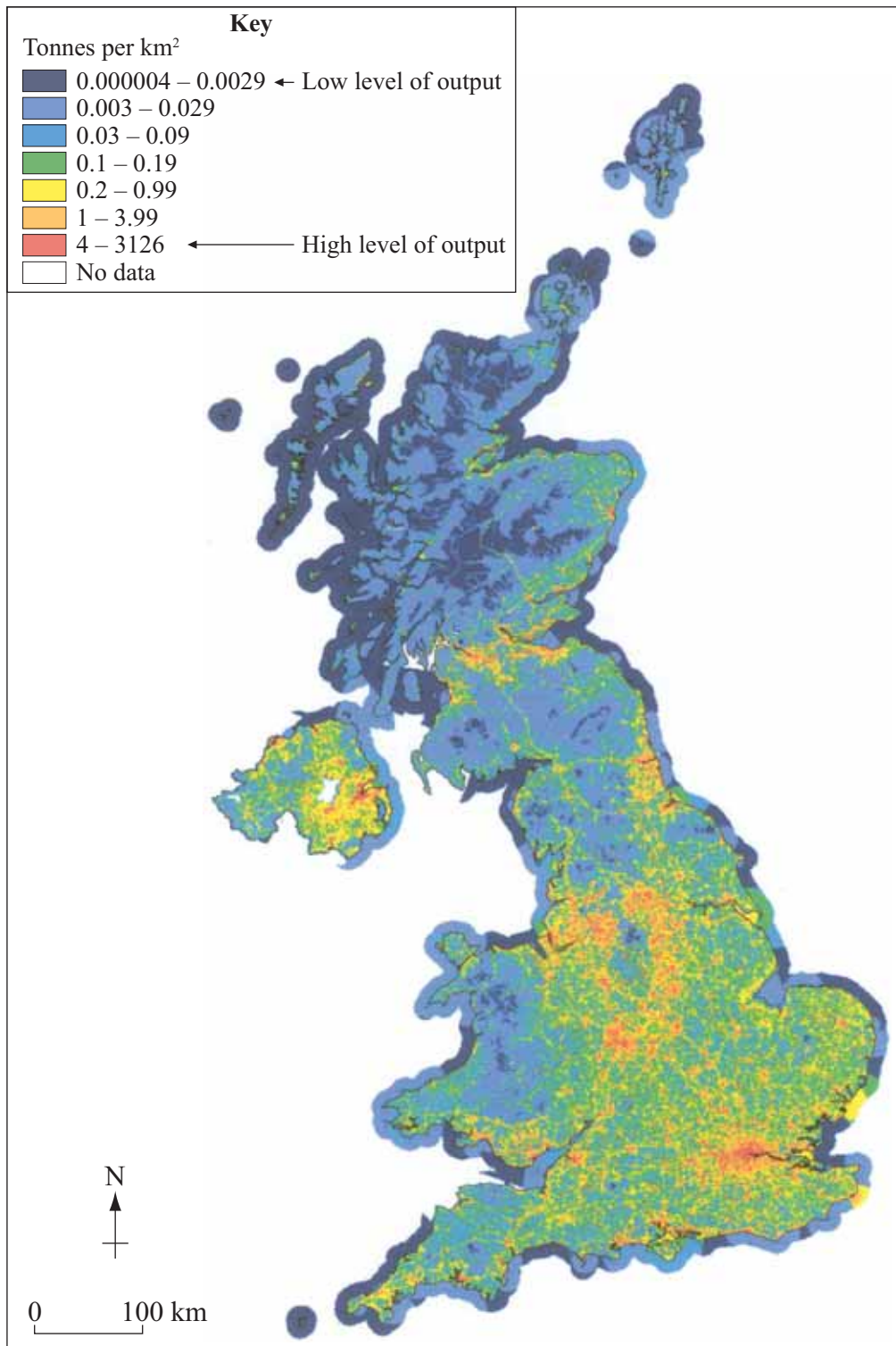
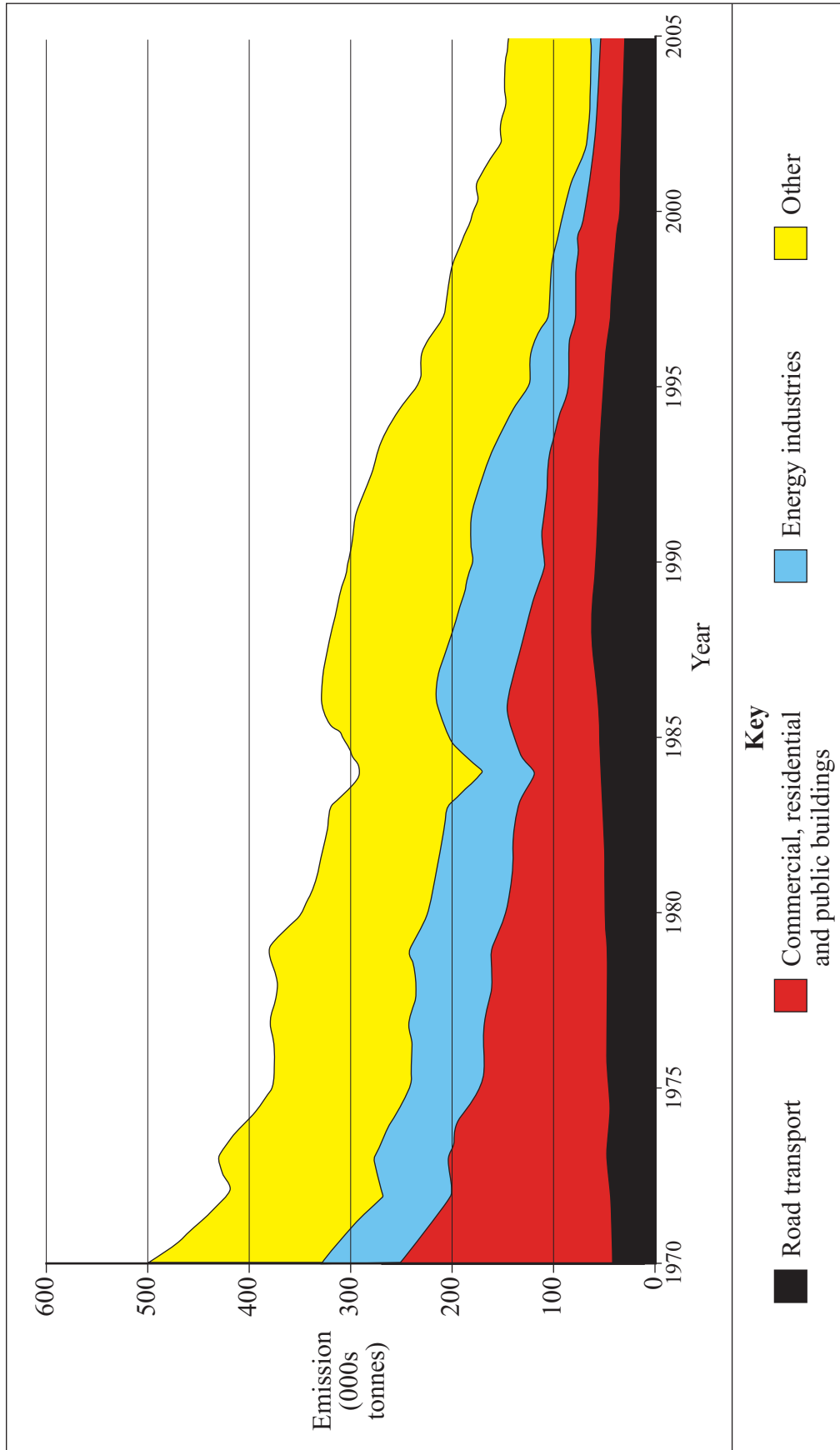


Figure 2



Funded by Department for Environment, Food and Rural Affairs (DEFRA)