Surname		Other Names	
Centre Number			Candidate Number									
Candidate Signature												

For Examiner's Use

General Certificate of Education
June 2008
Advanced Subsidiary Examination

ASSESSMENT and QUALIFICATIONS ALLIANCE

GEOGRAPHY (SPECIFICATION B) **GGB2**
Unit 2 The Physical Options

Tuesday 20 May 2008 1.30 pm to 2.30 pm

For this paper you must have:
- the colour insert (enclosed).

You may use a calculator.

Time allowed: 1 hour

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

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 12.
- Option **R**: Urban Physical Environments (Temperate Urban Areas) – Page 22.
- 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.

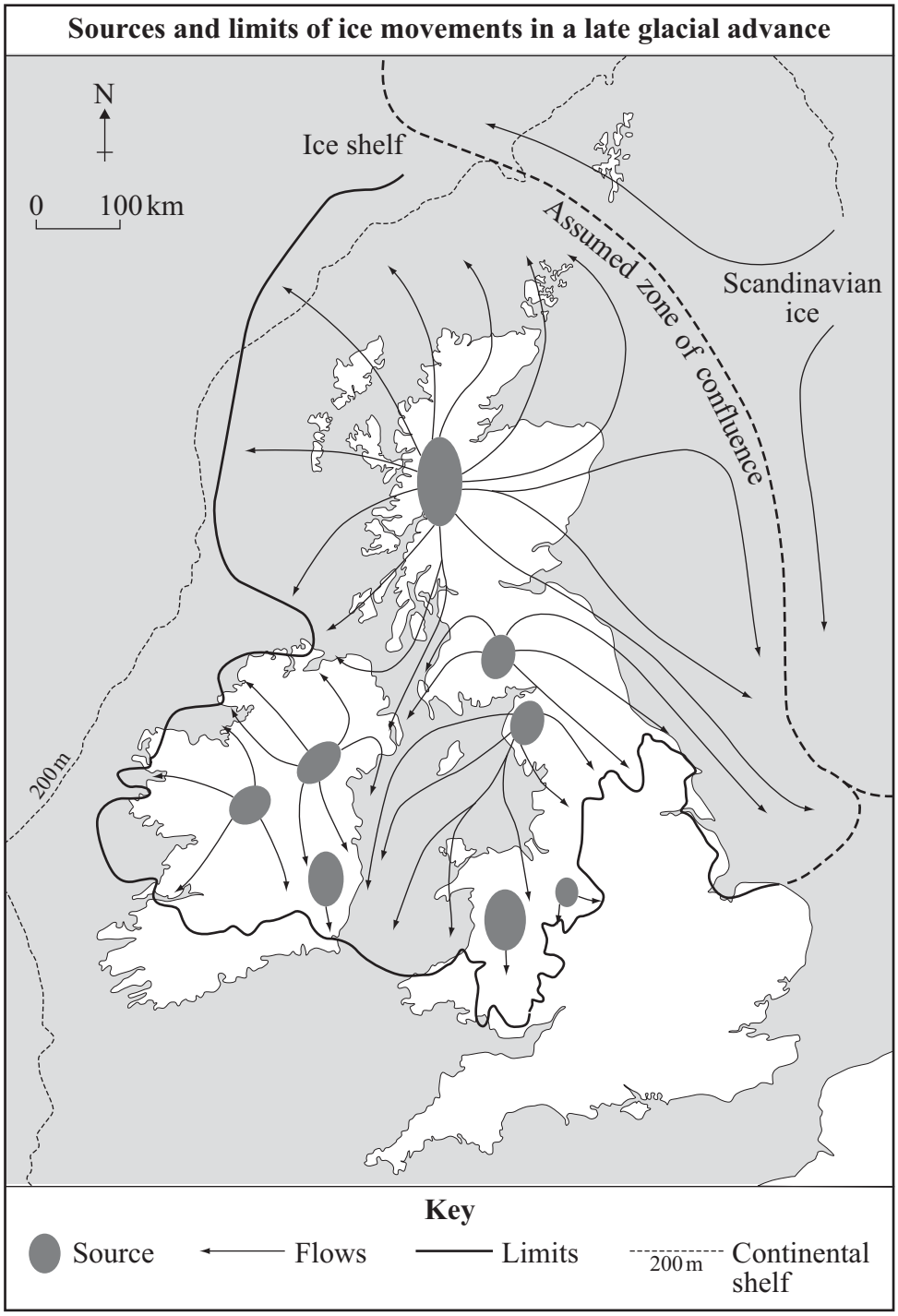
Information
- The maximum mark for this paper is 50.
- The marks for questions are shown in brackets.
- You are expected to use a calculator where appropriate.
- You will be marked on your ability to use an appropriate form and style of writing, to organise relevant information clearly and coherently, 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.

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

OPTION P: GLACIAL ENVIRONMENTS

1 (a) Study **Figure 1**.

Figure 1



1 (a) (i) Describe the distribution of the main sources of glacial ice as shown in **Figure 1**.

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1 (a) (ii) Describe and suggest reasons for the movement of the ice as shown in **Figure 1**.

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Question 1 continues on the next page

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1 (b) With the aid of a diagram(s), explain the term 'glacial budget'.

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Question 1 continues on the next page

1 (c) Using an example(s), describe a landform that has been created by glacial erosion and explain how it was formed.

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1 (d) Study **Figure 2** on the insert.

1 (d) (i) Using the **photograph only**, describe the valley sides above the valley glaciers.

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Question 1 continues on the next page

1 (d) (ii) Explain the processes that are *now* taking place on these valley sides.

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1 (e) Choose a landform that has been created by fluvioglacial processes.

1 (e) (i) Name and describe your chosen landform.

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Question 1 continues on the next page

1 (e) (ii) Explain the role of glacial meltwater in its formation.

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END OF OPTION P

Turn over for Option Q

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ANSWER IN THE SPACES PROVIDED

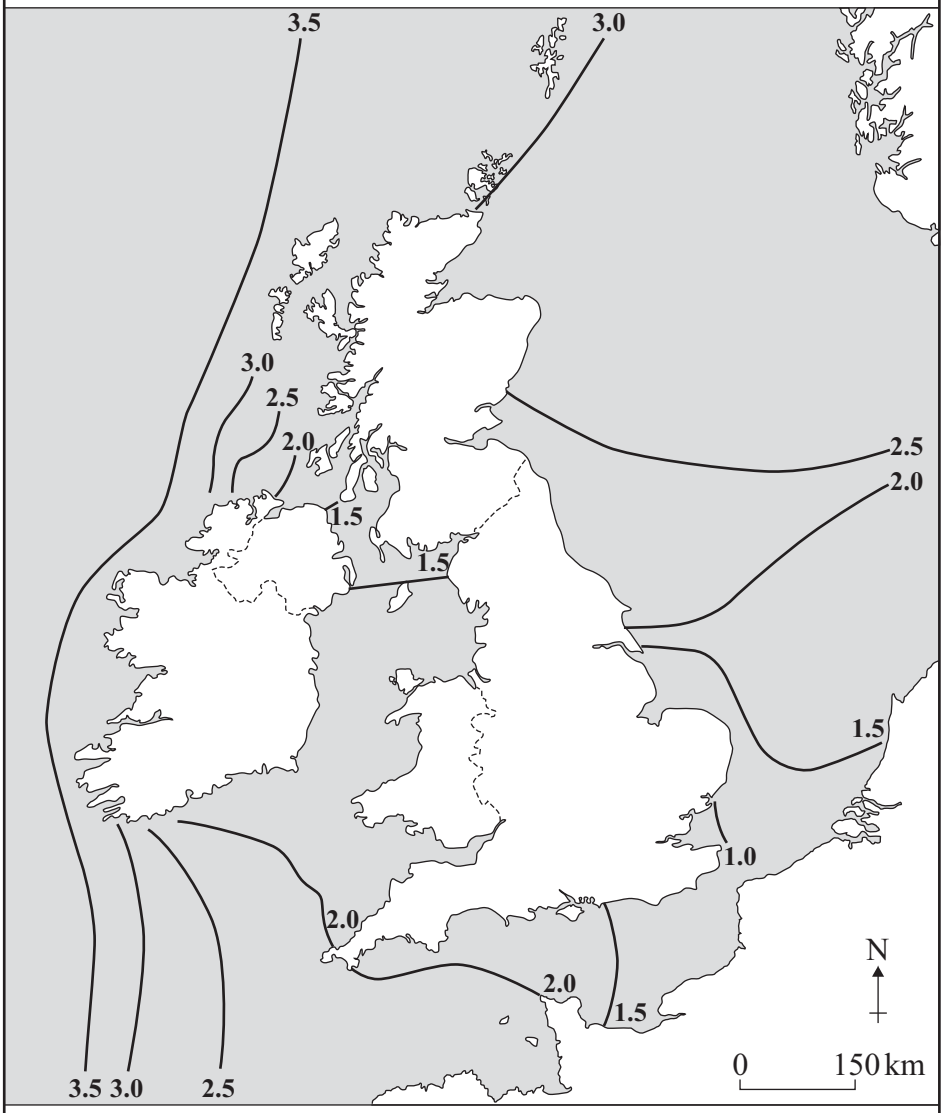
Answer the question on Option **P** or **Q** or **R**.

OPTION Q: COASTAL ENVIRONMENTS

2 (a) Study **Figure 3**.

Figure 3

Variations in predicted maximum wave height in the waters around the British Isles



This map shows the relative maximum wave height that can be expected to occur every 50 years in the waters around the British Isles. For example 3.5 represents a wave 3½ times higher than 1.0.

2 (a) (i) Describe the pattern of predicted maximum wave height around the British Isles.

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2 (a) (ii) Suggest reasons for the pattern you have described in (a)(i).

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2 (b) With the aid of a diagram, describe the process of wave refraction.

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Question 2 continues on the next page

2 (c) Using an example(s), describe a landform, other than a cliff, that has been created by marine erosion and explain how it was formed.

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2 (d) Study **Figure 4** on the insert.

Using the **photograph only**, suggest why people in the village may be concerned about coastal processes.

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2 (e) Describe and explain **one** scheme of coastal management.

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2 (f) (i) Choose **either** salt marsh **or** sand dunes. Describe your chosen landform.

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2 (f) (ii) Explain the role that vegetation has played in the formation of your chosen landform.

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END OF OPTION Q

Turn over for Option R

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

OPTION R: URBAN PHYSICAL ENVIRONMENTS (TEMPERATE URBAN AREAS)

3 (a) Study **Figure 5** on the insert, images of New York City.

Compare the temperature pattern shown in **X** with that of the vegetation density shown in **Y**.

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3 (b) Explain the urban heat island effect.

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Question 3 continues on the next page

3 (c) (i) The nature of precipitation in urban areas differs from that in surrounding rural areas.

Describe the main differences.

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3 (c) (ii) Explain the differences you have described in (c)(i).

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Question 3 continues on the next page

3 (d) Describe how and explain why winds vary in speed and frequency within urban areas.

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3 (e) (i) Using examples, describe how the growth of urban areas has resulted in the planned introduction of new species of plants.

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Question 3 continues on the next page

3 (e) (ii) Describe ways in which urbanisation has created niches which both attract and repel flora and fauna.

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3 (e) (iii) Using examples, show how the plant succession of a neglected area differs from that of an established ecological conservation area.

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END OF QUESTIONS

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Question 2 Figure 4: Copyright: A.P.S.
Question 3 Figure 5: NASA's Earth Observatory

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Unit 2 The Physical Options

Colour Insert

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Figure 2

Figure 4

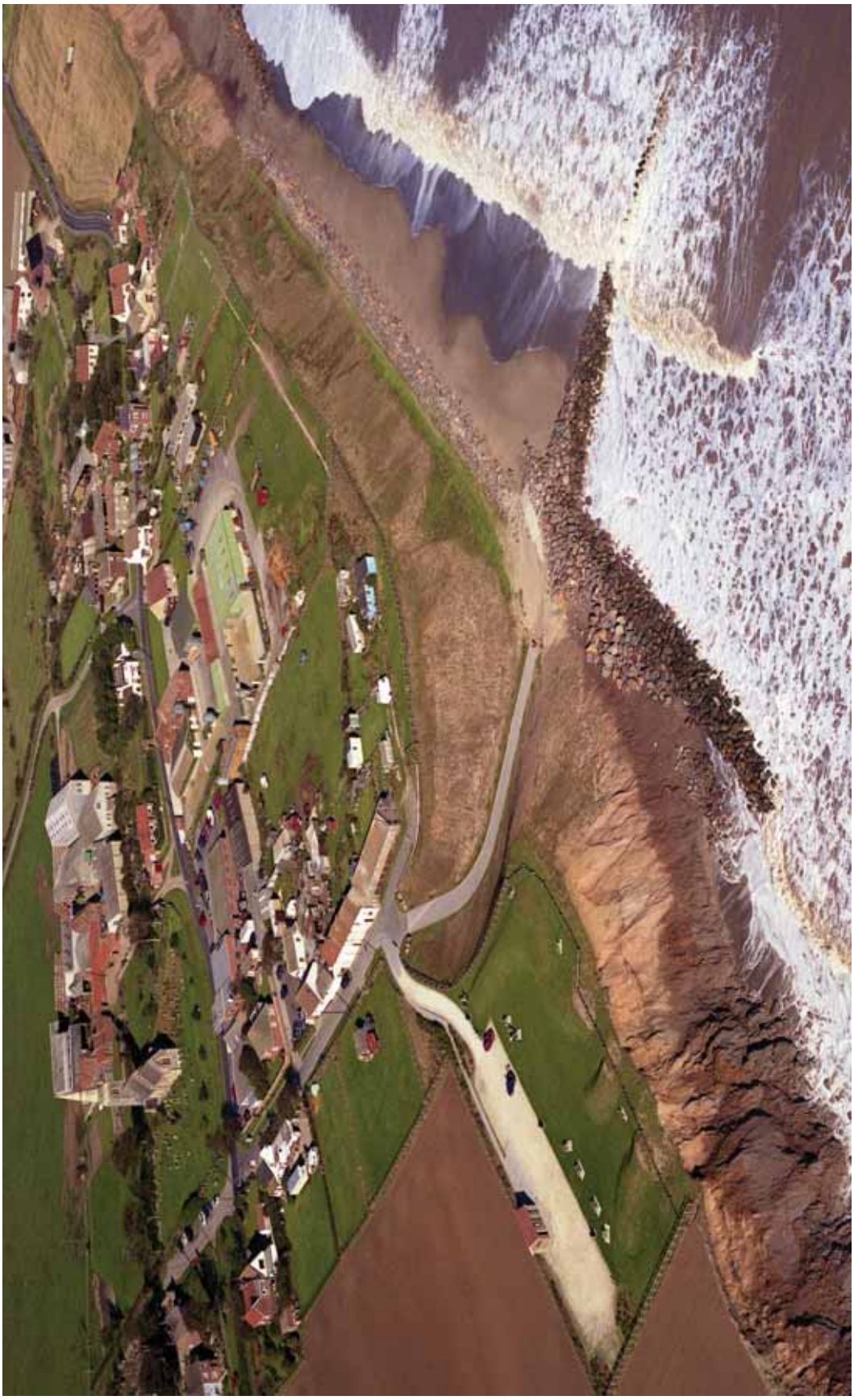

Figure 5

Surface temperatures and vegetation density in New York City