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| Surname | | | | | | Other Names | | | | | |
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General Certificate of Education
 June 2006
 Advanced Subsidiary Examination



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

GGB2

Friday 26 May 2006 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

Instructions

- Use blue or black ink or 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 in the spaces provided.
- Choose Option **P** or **Q** or **R**.
 Option **P**: Glacial Environments – Page 3.
 Option **Q**: Coastal Environments – Page 10.
 Option **R**: Urban Physical Environments (Temperate Urban Areas) – Page 17.
- Do all rough work in this book. Cross through any work you do not want marked.
- Give sketch maps, diagrams and specific examples, where appropriate.
- If there is not enough space for your answer(s), use the extra page(s) at the end of the book. If you do this, make sure that you show the number of the question you are answering.

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 are reminded of the need for good English and clear presentation in your answers. All questions should be answered in continuous prose. Quality of Written Communication will be assessed in all answers.

| For Examiner's Use | | | |
|---------------------|------|--------|------|
| Number | Mark | Number | Mark |
| P | X | R | X |
| 1 | | 3 | |
| Q | X | | |
| 2 | | | |
| TOTAL | | | |
| Examiner's Initials | | | |

There are no questions printed on this page

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

All questions carry equal marks.

OPTION P: GLACIAL ENVIRONMENTS

1 (a) (i) In the context of glacial budgets, what is meant by the following terms?

Accumulation

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(4 marks)

Ablation

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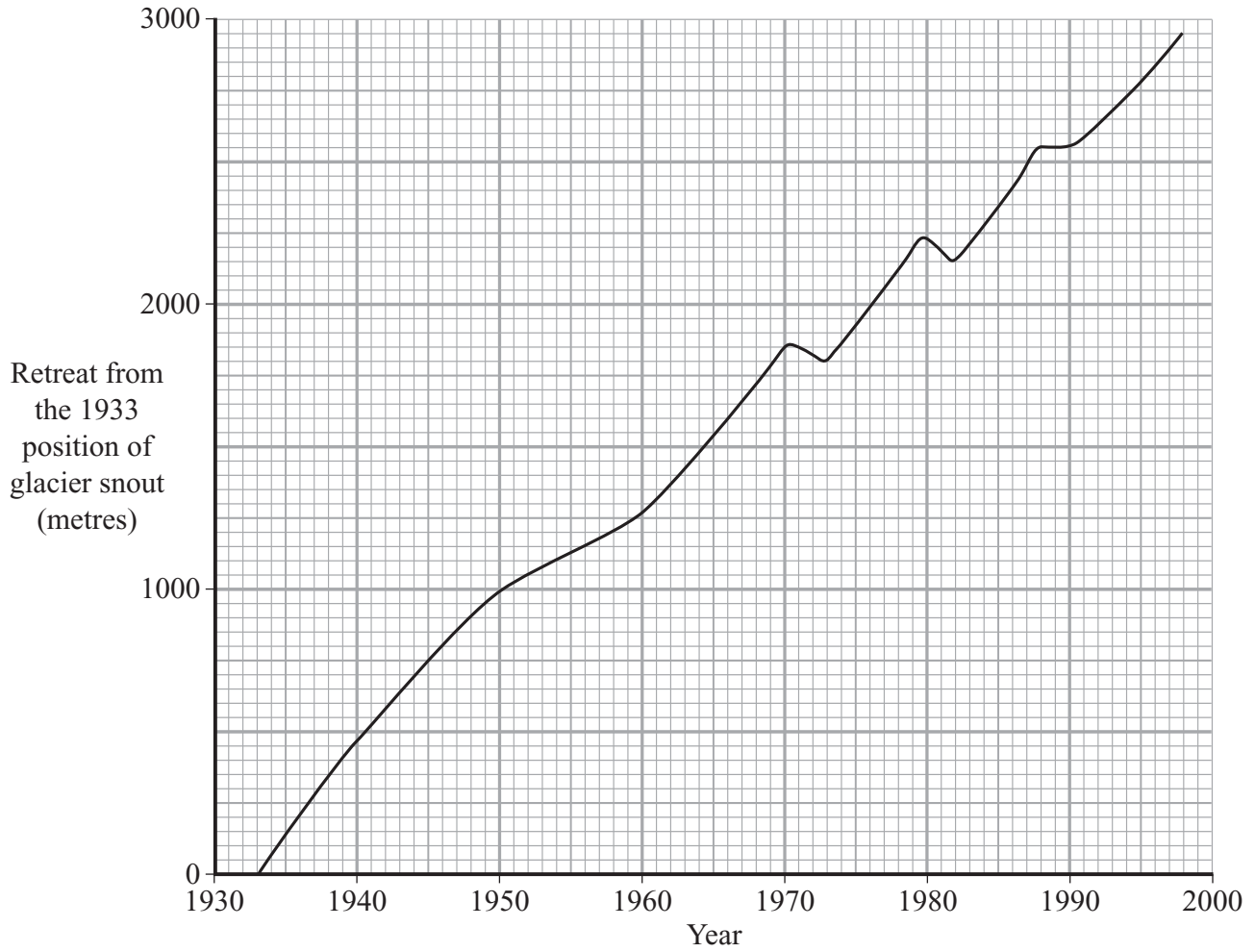
(4 marks)

Question 1 continues on the next page

Turn over ►

(ii) Study **Figure 1** which relates to a glacier in Iceland.

Figure 1



Describe the retreat of the glacier.

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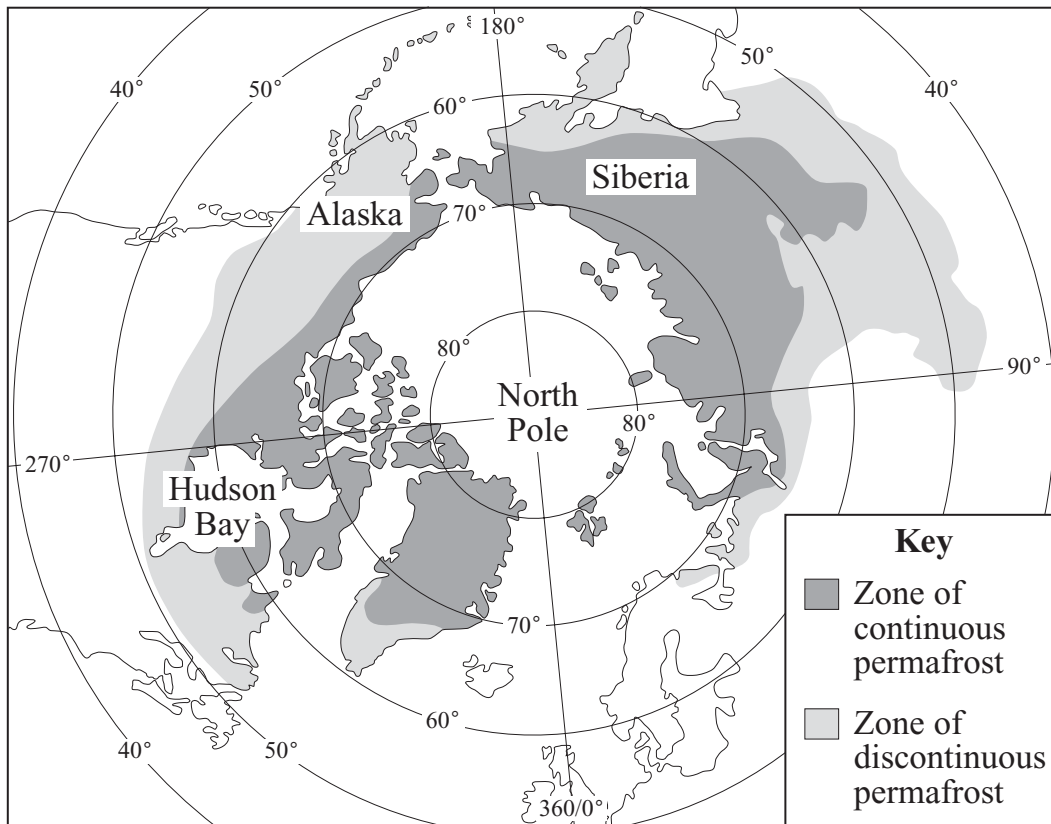
(6 marks)

Question 1 continues on the next page

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(d) Study **Figure 2**.

Figure 2



(i) Describe the distribution of continuous and discontinuous permafrost.

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

OPTION Q: COASTAL ENVIRONMENTS

2 (a) (i) In the context of marine processes, what is meant by the following terms?

Constructive wave

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(4 marks)

Destructive wave

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(4 marks)

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

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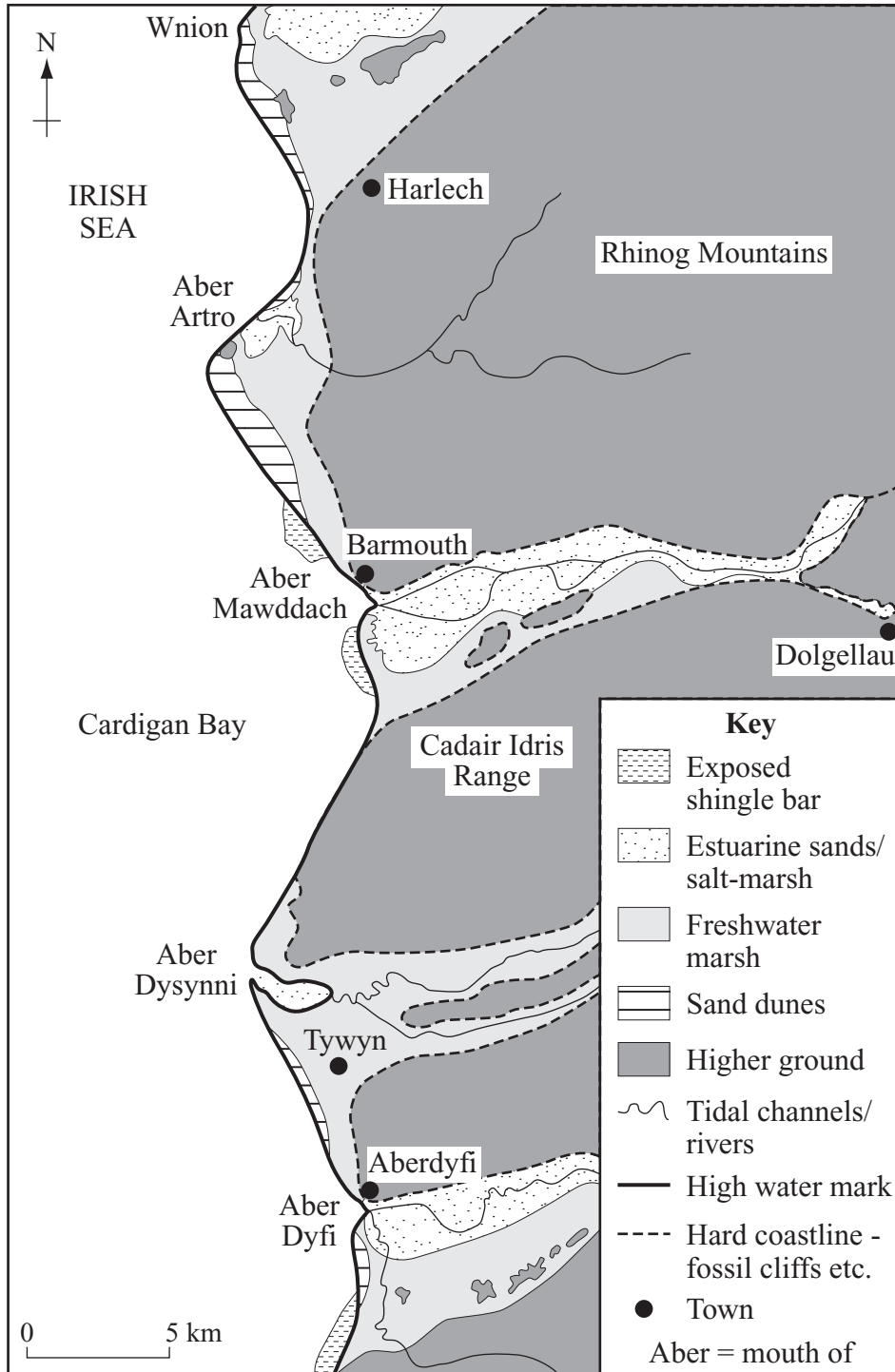
(6 marks)

Question 2 continues on the next page

Turn over ►

(b) Study **Figure 3** which shows part of the Welsh coast.

Figure 3



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(8 marks)

(c) (i) Explain the process of eustatic sea level change.

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(5 marks)

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

OPTION R: URBAN PHYSICAL ENVIRONMENTS (TEMPERATE URBAN AREAS)

- 3 (a) Study **Figure 4** which shows the increase in heat island intensity in selected temperate cities.

Figure 4

Graph on increasing temperatures - not reproduced here due to third-party copyright constraints.

- (i) What does **Figure 4** show about urban heat islands?

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(4 marks)

Question 3 continues on the next page

Turn over ►

(ii) With the aid of a diagram, describe how an isolated building may affect winds.

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(6 marks)

Question 3 continues on the next page

Turn over ►

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(5 marks)

50

END OF QUESTIONS

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Figure 2 &

Figure 3: D BRIGGS ET AL, *Fundamentals of the Physical Environment*, 2nd Edition, Thomson Publishing Services.

Figure 4: www.snr.unl.edn

Figure 5: DR A K HIGNELL – Head of Geography Dept, Wells Cathedral School, Sept '93–Dec '04 (e-mail: higgers@glamorgancricket.co.uk)
After B W ATKINSON, *Transactions of the Institute of British Geographers*, 1968.

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QUESTION
NUMBER

Write the question number in the left-hand margin.

A series of horizontal dotted lines for writing.