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General Certificate of Education  
June 2004  
Advanced Level Examination



**GEOGRAPHY**  
**Unit 4**

**GGA4**

Tuesday 15 June 2004 Afternoon Session

<p><b>No additional materials are required.</b> You may use a calculator.</p>
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Time allowed: 1 hour 30 minutes

**Instructions**

- Use blue or black ink or ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **three** questions in the spaces provided: **two** from **Section A** and **one** from **Section B**.
- Do all rough work in this book. Cross through any work you do not want marked.

**Information**

- The maximum mark for this paper is 90.
- Each question in Section A is worth 15 marks.
- Each question in Section B will be marked out of 30 and multiplied by 2 to give a mark out of 60.
- Mark allocations are shown in brackets.
- Section B of this unit assesses your understanding of the relationship between the different aspects of Geography.
- You are expected to use a calculator where appropriate.
- You will be assessed 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 degree of legibility of your handwriting and the level of accuracy of your spelling, punctuation and grammar will also be taken into account.

**Advice**

- Where appropriate, sketch maps and diagrams should be used to illustrate answers and reference made to regional examples and case studies.
- You are advised to spend about 30 minutes on Section A and about 60 minutes on Section B.

For Examiner's Use			
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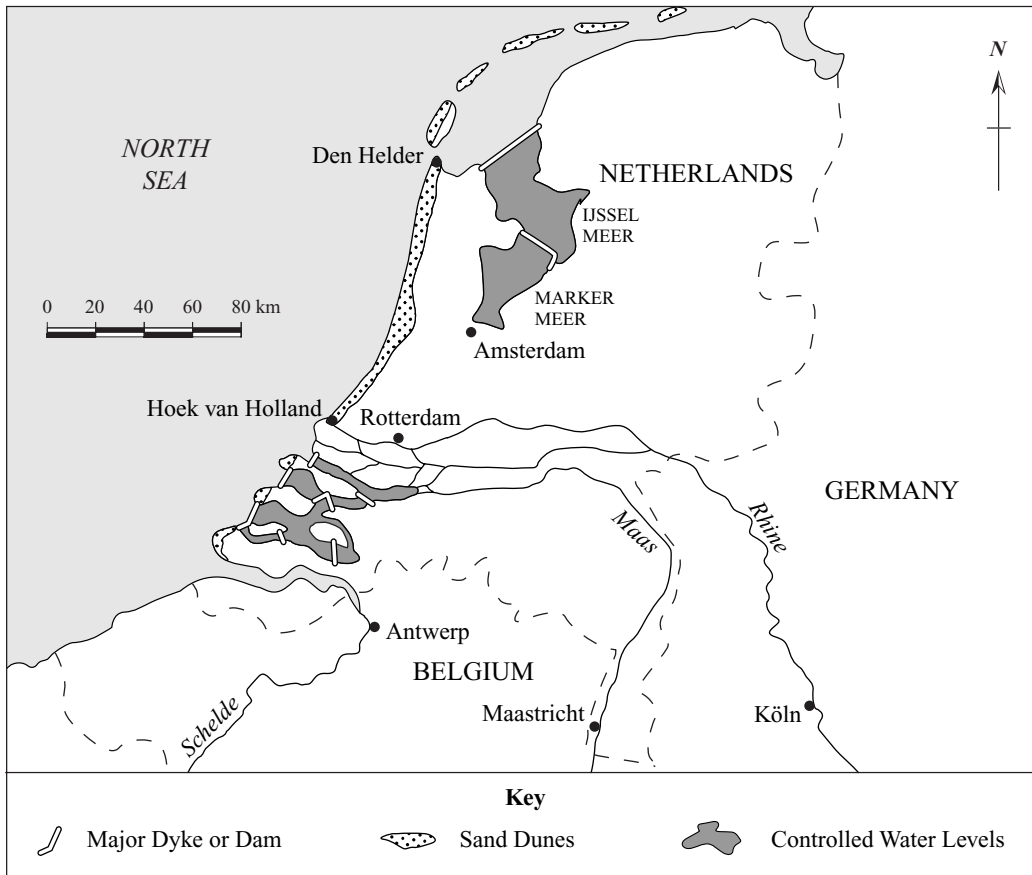
**SECTION A**

Answer **two** questions from this Section.

**1 COAST PROCESSES AND PROBLEMS**

**Total for this question: 15 marks**

Study **Figure 1** which illustrates key aspects of coastal protection in the Netherlands.



**Figure 1**

(a) Distinguish between hard and soft engineering approaches to coastal protection.

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(4 marks)

(b) What does **Figure 1** suggest about the balance between hard and soft engineering approaches to coastal management in the Netherlands?

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*(4 marks)*

(c) Comment on the issues which arise in the management of a large scale dune system such as that extending between Hoek van Holland and Den Helder.

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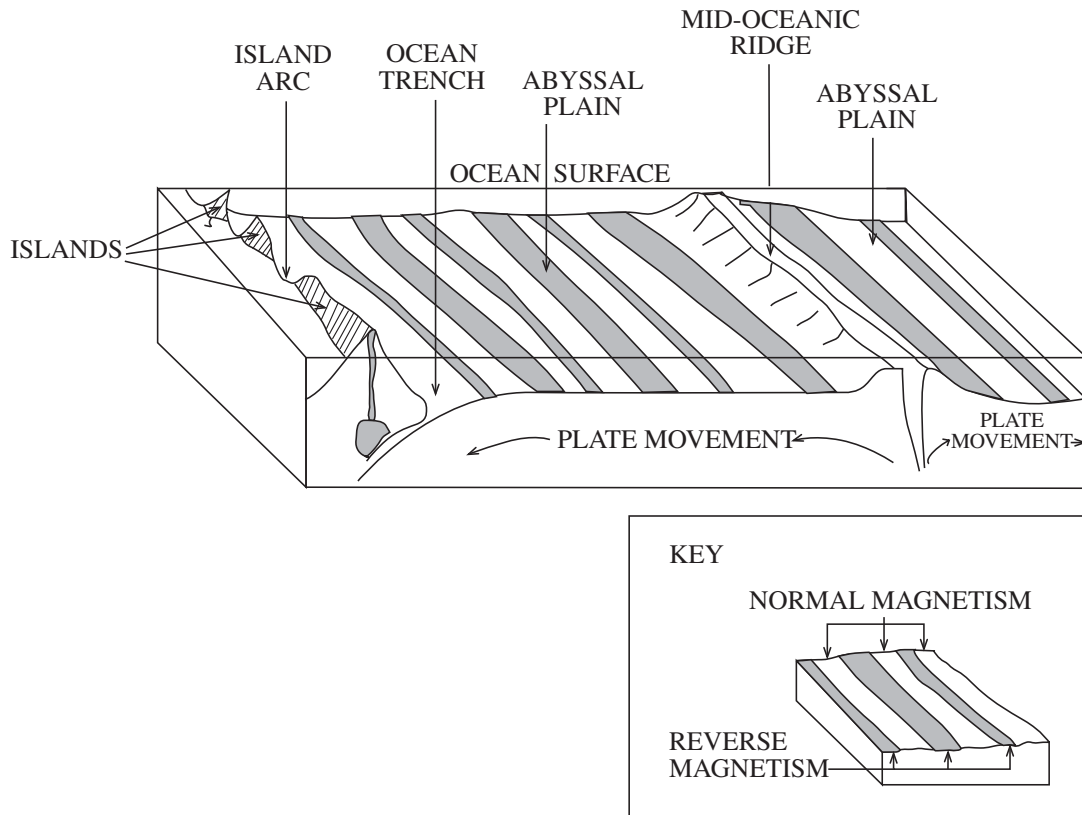
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**2 GEOMORPHOLOGICAL PROCESSES AND HAZARDS**

**Total for this question: 15 marks**

Study **Figure 2** which shows a simplified section across a portion of the earth's oceanic crust.



**Figure 2**

(a) Describe the characteristics of tectonic plates.

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(4 marks)

(b) How does the alternate banding of normal and reverse magnetism of the oceanic crust support the theory of plate tectonics?

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*(4 marks)*

(c) To what extent does the theory of plate tectonics provide an explanation for the earth's major surface features?

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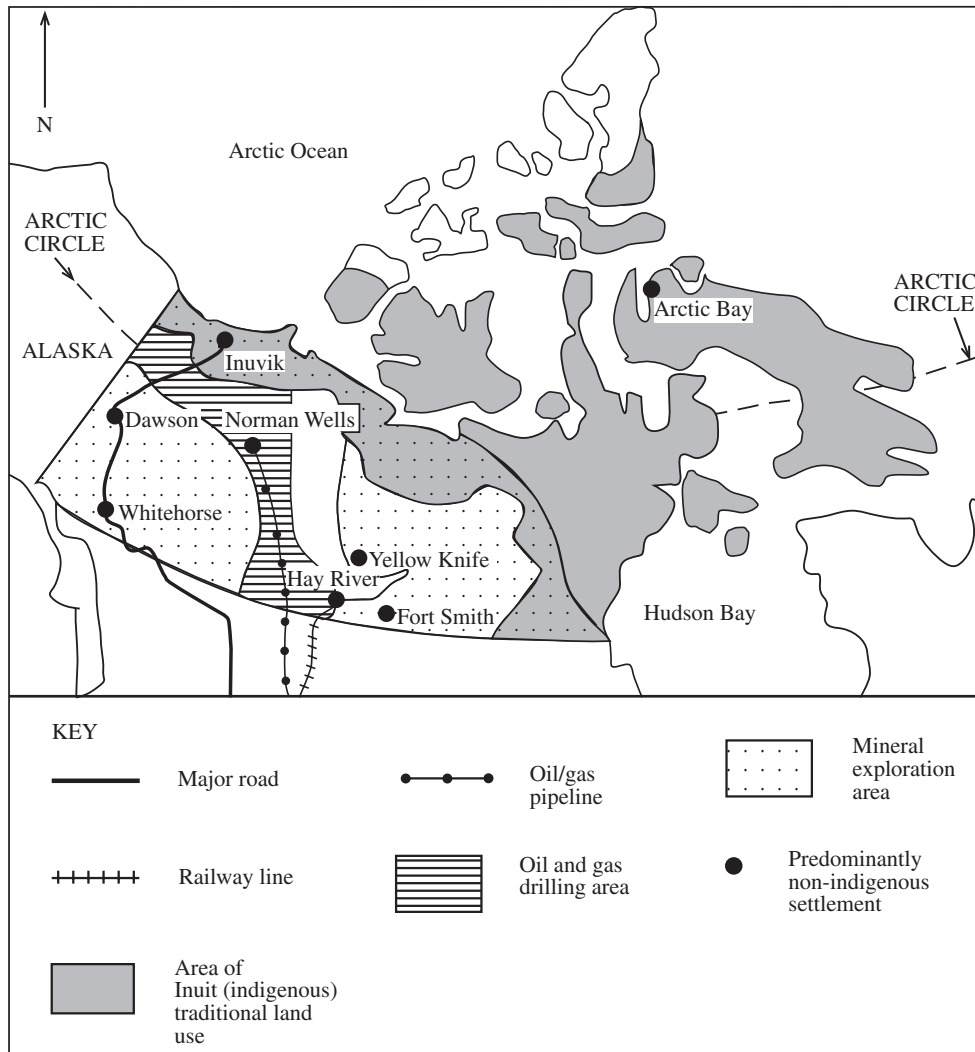
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### 3 COLD ENVIRONMENTS AND HUMAN ACTIVITY

Total for this question: 15 marks

Study **Figure 3** which shows a map of northern Canada with the location of major settlements, types of land use and infrastructure.



**Figure 3**

(a) Describe the distribution of land uses and economic activities shown on **Figure 3**.

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(4 marks)

(b) Contrast the nature of economic activities associated with indigenous and non-indigenous populations in cold environments such as shown in **Figure 3**.

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*(4 marks)*

(c) Comment on the possible conflicts in the recent exploitation of cold environments such as in northern Canada.

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*(7 marks)*

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**SECTION B**

Answer **one** question from this Section.

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**Total for this question: 30 marks**

**Note to Candidate**

You should bear in mind that essay questions 4, 5 and 6 are synoptic in nature. In your response to these questions you are required to show your knowledge and understanding of different aspects of geography, the connections between these different aspects and, where relevant, of human perspectives upon geographical themes and issues.

- 4** Coastal environments change over time for many reasons. Discuss this statement. (30 marks)
- 5** Geomorphological processes hinder rather than help human populations. Discuss this statement. (30 marks)
- 6** To what extent are cold environments fragile environments and how far does this affect their development? (30 marks)

**END OF QUESTIONS****Acknowledgement of copyright-holders and publishers**

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**Figure 1:** adapted from *Compact Geography of the Netherlands*, edited by Henk Meijer Information and Documentation Centre for the Geography of the Netherlands, Utrecht 90 75245 04 1

**Figure 3:** adapted from *Heartland and Hinterland: a Geography of Canada*, edited by L. D. McCann, 3rd edition. Scarborough, Ont.; London: Prentice-Hall, 1998. 013385146x



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