

Candidate forename						Candidate surname					
Centre number						Candidate number					

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

B561/02

GEOGRAPHY B

Sustainable Decision Making (SDM) (Higher Tier)

MONDAY 13 JUNE 2011: Morning

DURATION: 1 hour

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the question paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

Resource booklet (B561/01/02/RB – previously supplied)

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Answer ALL the questions.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- You will be awarded marks in Questions 2, 4 and 5 for the quality of written communication of your answer.
- Resources 1–8 are contained in the Resource Booklet.
- The total number of marks for this paper is 40.

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SECTION A: THE BACKGROUND

QUESTION 1

Use RESOURCE 1.

(a) Wooden and rock groynes reduce longshore drift.

Describe how groynes reduce longshore drift.

[2]

(b) Explain why wooden and rock groynes have a different lifespan.

[2]

[Total: 4]

QUESTION 2

Use RESOURCE 2.

Describe and explain the differences in the amount of erosion at Happisburgh between X and Y from 1999 to 2006. Include figures in your answer.

[6]

[Total: 6]

Section A: 10 marks

SECTION B: THE OPTIONS

QUESTION 3

Use **RESOURCES 3** and **4**.

Coastal erosion happens at Happisburgh. Stakeholders have different opinions on coastal protection.

Identify ONE stakeholder who is in favour of coastal protection and ONE who is against it. Explain their reasons using your own words.

Stakeholder IN FAVOUR: _____

Stakeholder's reasons: _____

Stakeholder AGAINST: _____

Stakeholder's reasons: _____

_____ [6]

[Total: 6]

QUESTION 4

Use RESOURCE 7 and your own knowledge.

Suggest why there are different coastal management plans for different locations along the North Norfolk coast and why these plans may vary over time.

[illegible]

[8]

[Total: 8]

Section B: 14 marks

SECTION C: THE DECISION

QUESTION 5

Use RESOURCES 1, 5, 6, 7 and 8, plus your own knowledge and any ideas from other resources in the booklet.

People have tried to control coastal erosion for many hundreds of years, with varied success. The council has to make a sustainable decision about what to do at Happisburgh. They are considering THREE possible options:

OPTION 1

Build a new sea wall and use rip-rap and rock armour at the base of the cliff.

OPTION 2

Use beach replenishment and repair and maintain the existing wooden groynes and revetments.

OPTION 3

Use managed retreat of the coast and give people compensation for their losses.

TASK

Explain which option you think would offer the council the most sustainable way to manage the coastline at Happisburgh.

In your answer you should:

- **State your chosen option**
- **Explain why you think your chosen option is more sustainable than each of the other options**
- **Explain any disadvantages of your chosen option**
- **Give ONE possible advantage of each of your rejected options.**

Chosen Option Number: _____

[illegible]

[illegible]

[16]

[Total: 16]

Section C: 16 marks

TOTAL MARKS FOR PAPER: 40

ADDITIONAL PAGES:

If you use these lined pages to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

[illegible]

