

Please check the examination details below before entering your candidate information

Candidate surname				Other names					
Pearson Edexcel		Centre Number				Candidate Number			
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Tuesday 14 May 2019									
Afternoon (Time: 1 hour 45 minutes)					Paper Reference 8GE0/01				
Geography									
Advanced Subsidiary									
Paper 1: Dynamic Landscapes									
You must have: Resource Booklet (enclosed) Calculator, ruler								Total Marks	

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer Question 1 in Section A **and EITHER** Section B **OR** Section C.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Calculators may be used.
- Any **calculations** must show **all** stages of **working out** and a **clear answer**.

Information

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ►

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Pearson

Answer Section A and EITHER Section B OR Section C.

SECTION A: TECTONIC PROCESSES AND HAZARDS

Answer Question 1. Write your answers in the spaces provided.

You must use the Resource Booklet provided.

1 (a) State which type of earthquake wave travels fastest. (1)

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(b) Study Figure 1a in the Resource Booklet.

(i) Compare the distribution of reported ground shaking between the February and November earthquakes. (2)

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(ii) Suggest **one** reason for the pattern of reported ground shaking in the February earthquake. (3)

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(c) Explain **two** strategies used to modify tectonic hazard events.

(4)

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(e) Study Figure 1b in the Resource Booklet.

Assess whether areal extent is the most important factor that determines the impact of volcanic eruptions.

(12)

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(Total for Question 1 = 28 marks)

TOTAL FOR SECTION A = 28 MARKS



SECTION B: GLACIATED LANDSCAPES AND CHANGE

Do not answer Section B (Glaciated Landscapes and Change) if you have answered Section C (Coastal Landscapes and Change).

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

If you answer Section B put a cross in the box ☑ .

You must use the Resource Booklet provided.

- 2 (a) Identify the process of accumulation. (1)

<input type="checkbox"/>	A Ice calving
<input type="checkbox"/>	B Water evaporation
<input type="checkbox"/>	C Snow melting
<input type="checkbox"/>	D Snowfall

- (b) Complete A and B in Figure 2a below. (2)

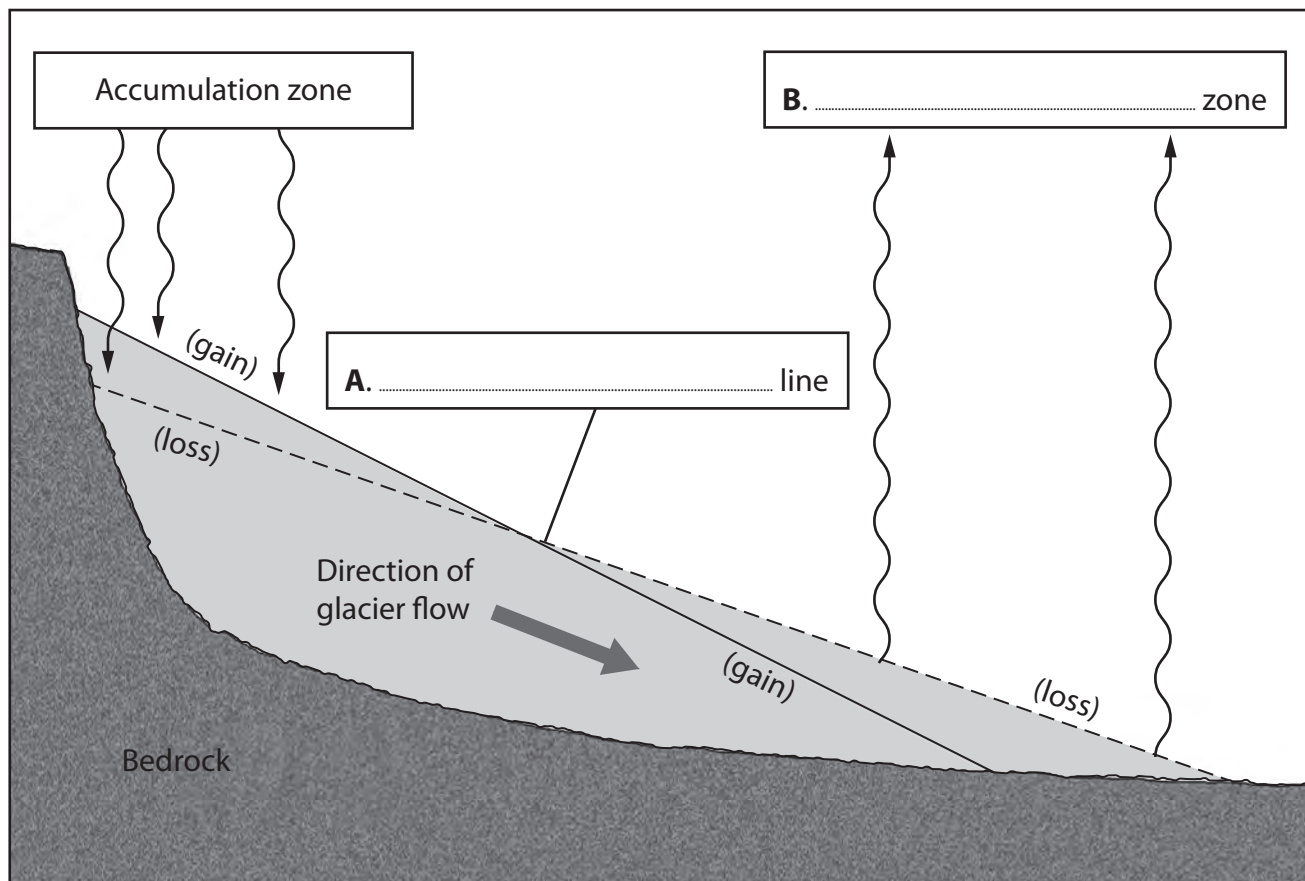


Figure 2a

Glacial mass balance system



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(c) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for the avalanche.

(3)

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(d) Explain **two** processes of water movement within glaciers.

(4)

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(e) Explain how the characteristics of glacial and fluvioglacial deposits differ.

(6)

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(f) Assess the importance of long-term climate change in explaining the distribution of glacial landscapes.

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(Total for Question 2 = 28 marks)



3 (a) Study Figure 3a below.

A group of students used secondary data about cirque/corrie orientation in Snowdonia, North Wales, as part of an investigation about ice flow direction.

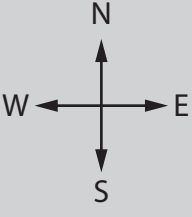
	Orientation	Orientation	Orientation	Orientation
	0°–89°	90°–179°	180°–269°	270°–360°
Number of cirques/corries	24	6	5	13

Figure 3a

(i) State **one** reason for studying cirque/corrie orientation.

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Study Figure 3b below

The students carried out a Chi² test to determine if there was any pattern in the distribution of corrie orientation.

The formula for Chi² (χ^2) is:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Σ = sum of

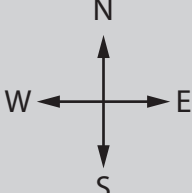
	Orientation 0°–89°	Orientation 90°–179°	Orientation 180°–269°	Orientation 270°–360°
Observed (O)	24	6	5	13
Expected (E)	12	12	12	12
(O – E)²	144	36		1
(O – E)²/E	12	3	4.1	0.08

Figure 3b

(ii) Complete the table above by calculating the missing number in the Orientation 180° – 269° column.

(1)

(iii) Calculate the value of Chi² (χ^2) from the data given.

(1)

Chi² (χ^2) =



P 5 6 5 8 5 A 0 1 3 3 2



(iv) Suggest **one** reason for carrying out a Chi² (χ^2) test on this data set.

(2)

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(v) Explain **two** primary fieldwork methods that might have been used to extend this investigation on ice flow direction.

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(b) You have carried out **primary fieldwork** to investigate glacial landscapes and change.

Assess how the sampling procedures and sample size affected your results.

(9)

Geographical enquiry question:

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(Total for Question 3 = 18 marks)

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Use your knowledge and understanding from across the course of study, along with the information in Figure 4, to answer this question.

4 Study Figure 4a and Figure 4b in the Resource Booklet.

The Swiss Alps glaciated landscape faces many threats.

Evaluate the effectiveness of the management strategies shown.

(16)

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(Total for Question 4 = 16 marks)

TOTAL FOR SECTION B = 62 MARKS



SECTION C: COASTAL LANDSCAPES AND CHANGE

Do not answer Section C (Coastal Landscapes and Change) if you have answered Section B (Glaciated Landscapes and Change).

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

If you answer Section C put a cross in the box ☐ .

You must use the Resource Booklet provided.

- 5 (a) Identify the factor which affects the direction of coastal sediment movement. (1)

<input checked="" type="checkbox"/>	A Wave type
<input checked="" type="checkbox"/>	B Longshore drift
<input checked="" type="checkbox"/>	C Sediment cell
<input checked="" type="checkbox"/>	D Sediment shape

- (b) Complete A and B in Figure 5a below. (2)

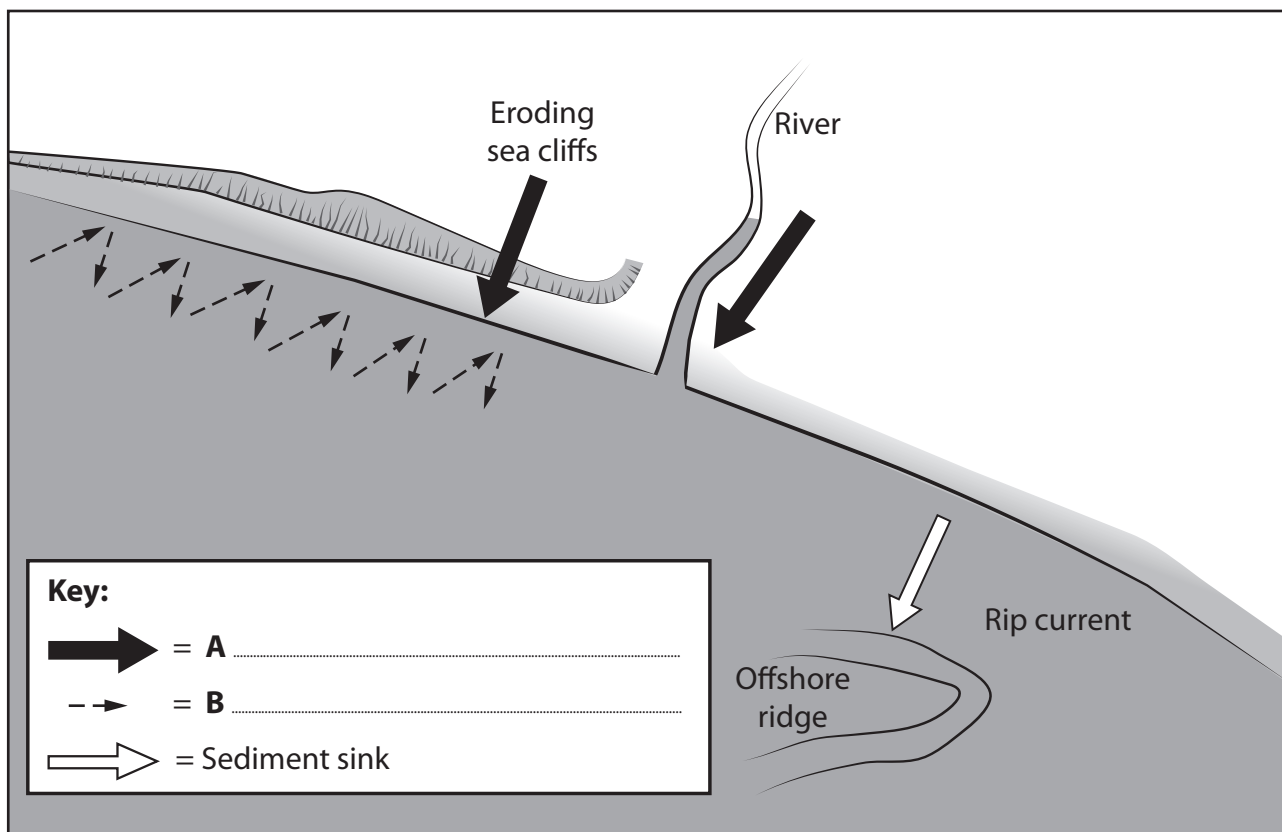


Figure 5a
Coastal sediment system

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Study Figure 5b in the Resource Booklet.

(c) Suggest **one** reason for the cliff collapse.

(3)

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(d) Explain **two** processes of weathering on a coastline.

(4)

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(e) Explain how the characteristics of coastal plains and rocky coasts differ.

(6)

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(f) Assess the importance of longer term sea-level change in explaining the risks at different coastlines.

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(Total for Question 5 = 28 marks)



- 6 (a) Study Figure 6a below.

A group of students used data about sediment size, from samples taken from four sites along the south coast of England, as part of an investigation about spit formation.

Beach site	Site 1	Site 2	Site 3	Site 4
Number of pebbles > 5mm	27	20	12	5

Figure 6a

- (i) State **one** reason for studying sediment size.

(1)



Study Figure 6b below.

The students carried out a Chi² test to determine if there was any pattern in the distribution of pebble sizes > 5mm.

The formula for Chi² (χ^2) is:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Σ = sum of

Beach site	Site 1	Site 2	Site 3	Site 4
Observed (O)	28	20	11	5
Expected (E)	16	16	16	16
(O - E) ²	144	16		121
(O - E) ² /E	9	1	1.6	7.6

Figure 6b

(ii) Complete the table above by calculating the missing number in the Site 3 column.

(1)

(iii) Calculate the value of Chi² (χ^2) for the data given.

(1)

Chi² (χ^2) =

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(iv) Suggest **one** reason for carrying out a Chi² (χ^2) test on this data set.

(2)

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(v) Explain **two** primary fieldwork methods that might have been used to extend this investigation on spit formation.

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(b) You have carried out **primary fieldwork** to investigate coastal landscapes and change.

Assess how the sampling procedures and sample size affected your results.

(9)

Geographical enquiry question:

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(Total for Question 6 = 18 marks)



Use your knowledge and understanding from across the course of study, along with the information in Figure 7, to answer this question.

7 Study Figure 7a and Figure 7b in the Resource Booklet.

The coastal landscape of Aqaba, Jordan, faces many threats.

Evaluate the effectiveness of the management strategies shown.

(16)

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(Total for Question 7 = 16 marks)

TOTAL FOR SECTION C = 62 MARKS
TOTAL FOR PAPER = 90 MARKS

