

Write your name here

Surname

Other names

**Pearson Edexcel**  
**Level 3 GCE**

Centre Number

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Candidate Number

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# Geography

**Advanced Subsidiary**

**Paper 1: Dynamic Landscapes**

Tuesday 16 May 2017 – Afternoon

**Time: 1 hour 45 minutes**

Paper Reference

**8GE0/01**

**You must have:**

Ruler, calculator, Resource Booklet (enclosed)

Total Marks

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## 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 **all** questions 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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Answer Section A and EITHER Section B OR Section C.

SECTION A: TECTONIC PROCESSES AND HAZARDS

Answer ALL questions. Write your answers in the spaces provided.

You must use the Resource Booklet provided.

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 ☒.

1 (a) Plate movement can be explained by several processes.

Identify **one** process that occurs **only** at destructive plate boundaries.

(1)

<input type="checkbox"/>	<b>A</b> Mantle convection
<input type="checkbox"/>	<b>B</b> Sea floor spreading
<input type="checkbox"/>	<b>C</b> Subduction
<input type="checkbox"/>	<b>D</b> Faulting

(b) Study Figure 1 in the Resource Booklet.

(i) Compare the data on the two earthquakes.

(2)

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(ii) Suggest **one** way hazard management strategies may have affected the earthquake impacts in Japan.

(3)

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(c) Explain **two** secondary hazards caused by earthquakes.

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(d) Explain the tectonic hazards that may result from volcanic activity.

(6)

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(e) Assess whether development and governance are the most important factors in understanding the scale of tectonic disasters.

(12)

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(Total for Question 1 = 28 marks)

**TOTAL FOR SECTION A = 28 MARKS**



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**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).**

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

**You must use the Resource Booklet provided.**

**2** (a) State **one** factor that affects the rate of glacier movement. (1)

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(b) (i) Study Figure 2 in the Resource Booklet, which shows velocity data for two different parts of a glacier.  
Calculate the average rate of movement nearer the surface and nearer the base of the glacier.  
Give your answer to the nearest whole number. (2)

Nearer surface ..... metres/year

Nearer base ..... metres/year

(ii) Suggest **one** reason why velocity changes with depth. (3)

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(e) A range of threats affect glaciated landscapes.

Assess whether sustainable management schemes are always the most appropriate approach to dealing with these threats.

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(Total for Question 2 = 28 marks)



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3 (a) Study Figure 3 in the Resource Booklet.

The student collected data about the different clast (sediment) size in the Upper layer and Middle layer of glacial till deposits at Aberogwen, North Wales, as part of an investigation about glacial deposition.

(i) Complete Figure 3a below by adding the following data for the Upper layer. (1)

Clast Size (cm)	Number recorded
5.1–7.5 cm	11
15.1–17.5 cm	20

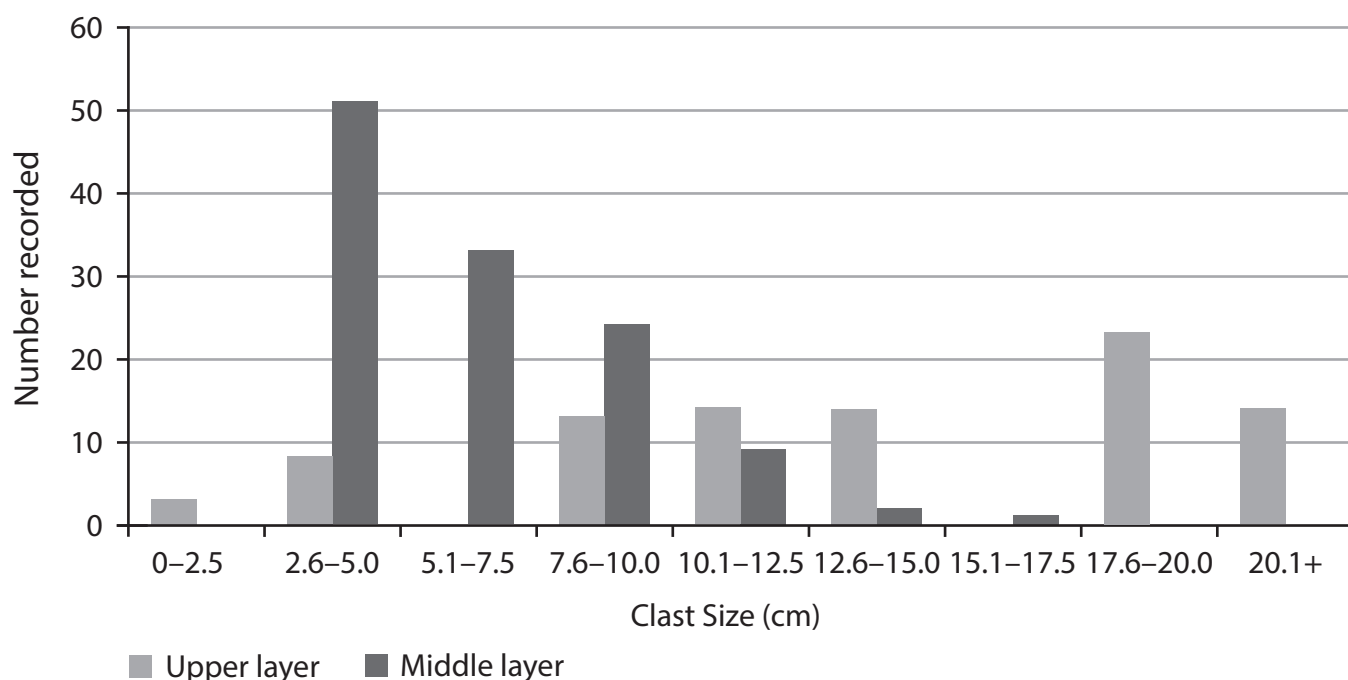


Figure 3a



(ii) The student decided to use a stratified sampling approach to collect their data.

State **two** reasons why this could be an appropriate approach.

(2)

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(iii) Suggest **one** reason why the clast size in the Upper layer is different to that in the Middle layer.

(2)

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(iv) The student collected this data to investigate the differences between glacial sediment.

Explain **two** other techniques the student could have used as part of their investigation.

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(Total for Question 4 = 16 marks)

**TOTAL FOR SECTION B = 62 MARKS**



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**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)**

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

**You must use the Resource Booklet provided.**

**5** (a) State **one** factor that affects coastal sediment transport. (1)

(b) (i) Study Figure 5 in the Resource Booklet, which shows sets of wave frequency data for two locations in Dorset.

Calculate the average wave frequency at each location.

Give your answer to the nearest whole number. (2)

Location A ..... waves/minute

Location B ..... waves/minute

(ii) Suggest **one** reason why the wave frequency at the two locations differ. (3)

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(e) Assess whether sustainable management schemes are always the most appropriate for managing the risks to coastlines.

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(Total for Question 5 = 28 marks)



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6 (a) Study Figure 6 in the Resource Booklet.

The student collected data about clast (sediment) size at two sites in Porlock Bay, Somerset, as part of an investigation about coastal deposition.

(i) Complete Figure 6a below by adding the following data for Site X.

(1)

Clast Size (cm)	Number recorded
5.1–7.5	13
15.1–17.5	11

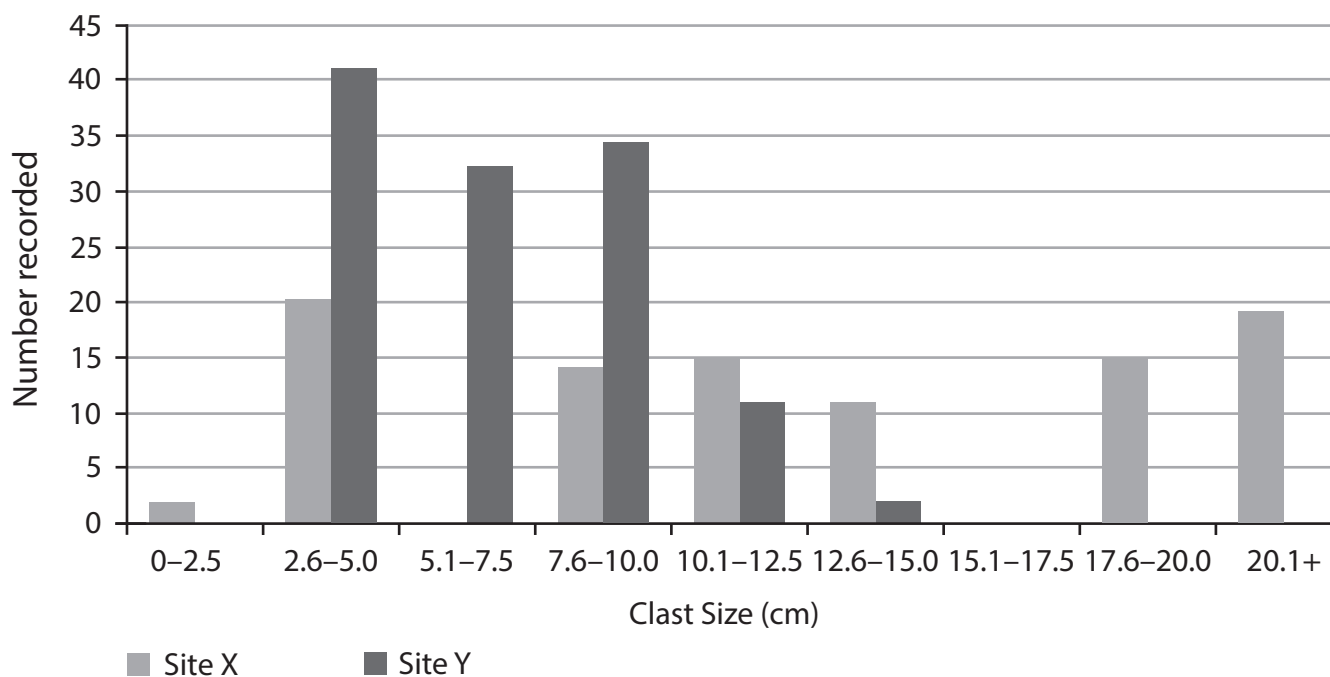


Figure 6a

(ii) At both sites, X and Y, the student decided to use a stratified sampling approach to collect their data.

State **two** reasons why this could be an appropriate approach.

(2)



(iii) Suggest **one** reason why the clast size at Site X is different to that at Site Y.

(2)

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(iv) The student collected this data to investigate changes to coastal sediment.

Explain **two** other techniques the student could have used as part of their investigation.

(4)

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**(Total for Question 7 = 16 marks)**

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

