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

Centre Number

Candidate Number

**Geography**  
**Advanced Subsidiary**  
**Paper 1**

Sample assessment material for first teaching September 2016 <b>Time: 1 hour 45 minutes</b>	Paper Reference <b>8GEO/01</b>
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<b>You must have:</b> 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** the 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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**PEARSON**

**Answer Section A and EITHER Section B OR Section C.**

**SECTION A: TECTONIC PROCESSES AND HAZARDS**

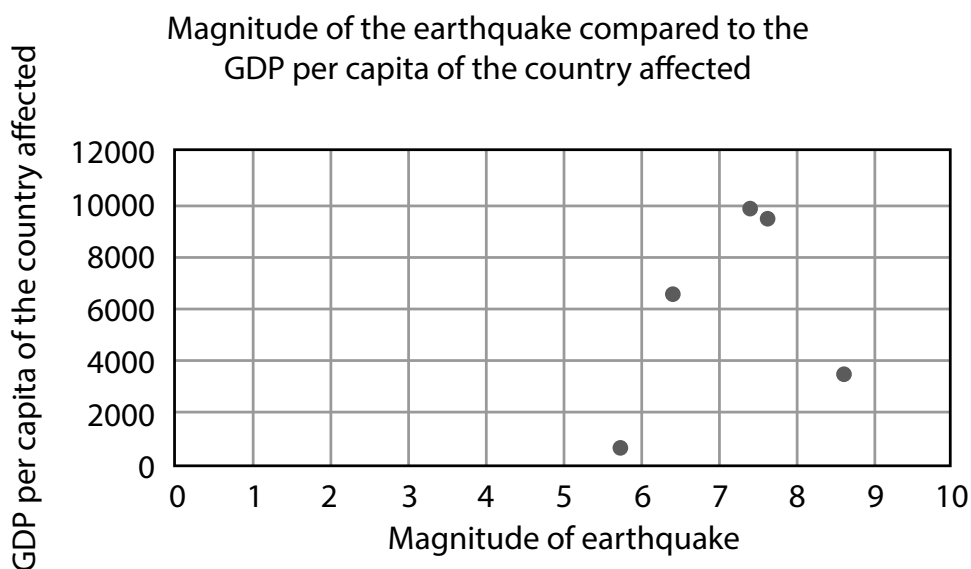
**Answer ALL questions. Write your answers in the spaces provided.**

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

- 1 (a) Name **one** scale used to measure earthquake magnitude. (1)

(b) Study Figure 1 in the Resource Booklet.

- (i) Complete the scatter graph by adding the data for the earthquake of Sichun-Yunnan in China and then add a line of best fit. (2)



- (ii) Suggest **one** reason why the more powerful earthquakes shown in Figure 1 did not cause the most deaths. (3)

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(e) Assess the significance of earthquake hazard profiles in relation to the effectiveness of management strategies.

(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 Landscape and Change) if you have answered Section C (Coastal Landscape and Change).**

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

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

- 2 (a) State **one** weathering process that occurs in glaciated upland areas. (1)

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(b) Study Figure 2 in the Resource Booklet.

- (i) Give the six figure grid reference of the summit of Helvellyn. (1)

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- (ii) Calculate the area of Red Tarn to the nearest m<sup>2</sup>. (1)

- A** 10,000
- B** 110,000
- C** 60,000
- D** 90,000

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(iii) Explain **one** process that has created Nethermost Cove at grid reference 349144.

(3)

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(c) Explain the formation of **two** ice contact depositional features.

(4)

Feature 1 .....

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Feature 1 .....

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(d) Explain the formation of landforms caused by ice sheet scouring.

(6)

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(e) Assess the importance of global warming in influencing the rate of ablation of glaciers.

(12)

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**(Total for Question 2 = 28 marks)**

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

The student collected sediment size and roundness data at two locations to investigate the differences between glacial and fluvio-glacial deposits as part of fieldwork.

- (i) Using information from Figure 3C, identify **one** difference between the shape of the sediment found at the two fieldwork sites.

(1)

The student carried out a t-test on the difference in the sediment size at sites A and B. The details are shown below.

<b>Null hypothesis:</b> there is no significant difference between the mean size of sediment found at site A and site B.				
<b>Hypothesis:</b> there is a significant difference between the mean size of sediment found at site A and site B.				
Standard deviation site A	Standard deviation site B	Difference in means	T-test score	Critical value at 90% confidence level
1.6	3.3	15.3	5.9	1.9

- (ii) Which hypothesis should the student accept?

(1)

- (iii) State **one** reason for accepting the hypothesis given in your answer to 3(a)(ii).

(1)

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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).**

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

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

- 5 (a) Name **one** weathering process that occurs at a coast. (1)

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(b) Study Figure 5 in the Resource Booklet.

- (i) State the six figure grid reference of the eastern most point of Hurst Castle Spit. (1)

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- (ii) Calculate the areal extent of the salt marsh shown on the map to the nearest km<sup>2</sup>. (1)

**A** 1.0 km

**B** 2.0 km

**C** 3.0 km

**D** 4.0 km

- (iii) Suggest one reason for the differences in the characteristics of the sediment found at A and the sediment found at B. (3)

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(e) Assess the importance of lithology in influencing the rate of coastal recession.

(12)

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**(Total for Question 5 = 28 marks)**

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

At site 1 (a groyne), two transects were taken to investigate its impact on the sediment cell as part of fieldwork.

The student collected data on the size of the beach sediment and on the gradient of the beach.

- (i) Using information from Figure 6C, identify **one** difference in the beach characteristics found at the two transects.

(1)

The student carried out a t-test on the difference in sediment size at Transects A and B. The details are shown below.

<b>Null hypothesis:</b> there is no significant difference between the mean size of sediment found at Transect A and Transect B.				
<b>Hypothesis:</b> there is a significant difference between the mean size of sediment found at Transect A and Transect B.				
Standard deviation Transect A	Standard deviation Transect B	Difference in means	T-test score	Critical value at 90% confidence level
2.1	0.9	5.3	3.3	1.9

- (ii) Which hypothesis should the student accept?

(1)

- (iii) State **one** reason for accepting the hypothesis given in your answer to 6(a)(ii).

(1)

(iv) Suggest **one** reason why the deposits measured at transect A are different from those measured at transect B.

(2)

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(b) The student undertook the transects during a one-day field trip in summer.

Explain **two** ways in which the student could improve their study by collecting further data.

(4)

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

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