Write your name here Surname	Other nam	es
Pearson Edexcel Level 3 GCE	Centre Number	Candidate Number
Geograph Advanced Subsidia Paper 1		
Sample assessment mater September 2016 Time: 1 hour 45 minutes	3	Paper Reference 8GE0/01
You must have: Ruler, calculator, Resource Boo	oklet (enclosed)	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 **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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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.

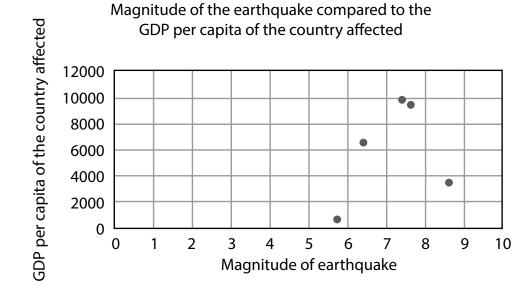
You must use the Resource Booklet provided.

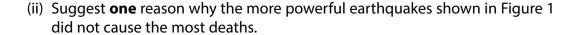
1 (a) Name **one** scale used to measure earthquake magnitude.

(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)





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(c)	Explain two reasons why the number of reported earthquakes has risen since 1960.	
		(4)
	(d) Explain the causes of tsunamis.	(6)
		(0)

(e) Assess the significance of earthquake hazard profiles in relation to the effectiveness of management strategies.	
	(12)

(Total for Question 1 = 28 marks)
(Total for Question 1 – 20 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 ar Section C (Coastal Landscape and Change).				
	If you answer Section B put a cross in the box $\ \square$.				
		You must use the Resource Booklet provided.			
2	(a) State on	e weathering process that occurs in glaciated upland areas.	(1)		
	(b) Study Fi	gure 2 in the Resource Booklet.			
	(i) Give	the six figure grid reference of the summit of Helvellyn.	(1)		
	(ii) Calc	ulate the area of Red Tarn to the nearest m².	(1)		
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	×	B 110,000			
	×	C 60,000			
	×	D 90,000			

(iii) Explain one process that has created Nethermost Cove at grid reference 349144.	
	(3)
(c) Explain the formation of two ice contact depositional features.	(4)
Feature 1	
Feature 1	

·	ition of landforms caused by id	ce sneet scouring.	(6)
Assess the import	tance of global warming in inf	luencing the rate of ab	lation of
glaciers.			(12)

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

The student collected sediment size and roundess 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.

Null hypothesis: there is no significant difference between the mean size of sediment found at site A and site B.

Hypothesis: 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 th	e student	accept
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(1)

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

(1)

(iv) Suggest one reason why the deposits measured at site A are different fro those measured at site B.	(2)
b) The student collected the data shown during a one-day field trip in summer	;
Explain two ways in which the student could improve their study by collecti further data.	ng
	(4)

(c) You have also carried out field research to investigate glacial landscapes and change.	
Assess how the accuracy and reliability of your fieldwork results affected your conclusions.	(9)
Location of geographical investigation	
(Total for Question 3 = 18 i	marks)

(16)

Study Figure 4 in the Resource Booklet. Evaluate the relative importance of tectonic and glacial processes in generating the hazard at the Vatnajökull ice sheet.

To answer this question, use your knowledge and understanding from across

the course of study, along with the information in Figure 4.

TOTAL FOR SECTION B = 62 MARKS
(Total for Question 4 = 16 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 $\hfill \square$.

You must use the Resource Booklet provided.

5	(a)	Name	one	weathering pr	rocess that o	ccurs at a co	past.			(1)
	(b)	Study	Figu	re 5 in the Res	ource Bookle	t.				
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(c) Explain two processes in the formation of offshore bars.	(4)
1	(4)
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(d) Explain how geological structure affects the development of coastal landforms.	(6)

(e) Assess the importa	-		(12)

l	(Total for Question 3 – 20 marks)
	(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.

Null hypothesis: there is no significant difference between the mean size of sediment found at Transect A and Transect B.

Hypothesis: 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 anwer to 6(a)(ii).

(1)

	(iv) Suggest one reason why the deposits measured at transect A are differer from those measured at transect B.	nt
		(2)
	(b) The student undertook the transects during a one-day field trip in summ	er.
	Explain two ways in which the student could improve their study by colle further data.	ecting
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(c)	You have also carried out field research investigating coastal landscapes and change.	
	Assess how the accuracy and reliability of your fieldwork results affected your conclusions.	(9)
	Location of geographical investigation	
	(Total for Question 6 = 18	marks)
	(10441101 Question 0 - 10	

To sti	To answer this question use your knowledge and understanding from across the course of study, along with the information in Figure 7.		
7	Study Figure 7 in the Resource Booklet.		
	Evaluate the relative importance of the human and physical geography of the coasts		
	and the characteristics of the tsunami event in determining its impact.	(16)	
		(10)	

(Total for Question 7 = 16 marks)
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TOTAL FOR SECTION C = 62 MARKS
TOTAL FOR PAPER = 90 MARKS