Candidate Name	Centre Number					Candidate Number				
						0				

AS GEOGRAPHY

UNIT 1

CHANGING LANDSCAPES

SAMPLE ASSESSMENT MATERIALS

2 hours

For examiner's use only	
Q.1	
Q.2	
Q.3	
Q.4	
Q.5	
Q.6	
Total Marks	

ADDITIONAL MATERIALS
In addition to this examination paper, you will need a calculator.

INSTRUCTIONS TO CANDIDATES

In Section A, answer **either** questions 1 and 2 **or** questions 3 and 4

Answer **all** questions in Section B.

Use either black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet.

If additional space is required you should use the lined pages at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part-question; you are advised to divide your time accordingly.

This paper requires that you make as full use as possible of appropriate examples and reference to data to support your answers. Sketch maps and diagrams should be included where relevant.

A blank page is available at the end of each section for you to add any relevant sketch maps and diagrams you may wish to include.

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Section A: Changing Landscapes

*Answer **either** questions 1 and 2 **or** questions 3 and 4 from your chosen landscape.*

Where possible, make full use of examples and data to support your answers.

Coastal Landscapes

Answer questions 1 and 2 if this is your chosen landscape.

Figure 1: Managed retreat at Cwm Ivy, Gower Peninsular

Source: Gordon Howe

A new tidal saltmarsh is planned as the sea defence wall at Cwm Ivy was breached in December 2014. The sea wall was originally built in medieval times to keep the sea from farmland, which has been used mainly for livestock farming since the Middle Ages. Following the National Trust's view of working with natural processes, the sea will be allowed to reclaim farmland, creating 39 hectares of intertidal saltmarsh. The new feeding and resting sites for birds and other wildlife will provide a sustainable habitat and will ensure that the special wildlife value of this ecosystem is protected into the future. This new saltmarsh will also help to provide an alternative habitat for wildlife as new coastal protection schemes across the Carmarthen Bay Special Area of Conservation (SAC) cause unavoidable damage to the natural environment.

The project, by Natural Resources Wales and the National Trust, is the first of its kind in Wales

Source: adapted from Walesonline 9.12.14

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1. (a) **Use Figure 1** to outline why '*managed retreat'* is a positive choice for Cwm Ivy.[5]

[insert 10 lines]

(b) Suggest one reason why the sea wall has been breached [3]

[insert 6 lines]

(c) Describe and explain how changes in sea level result in the formation of **one** coastal landform

[8]

[insert 16 lines]

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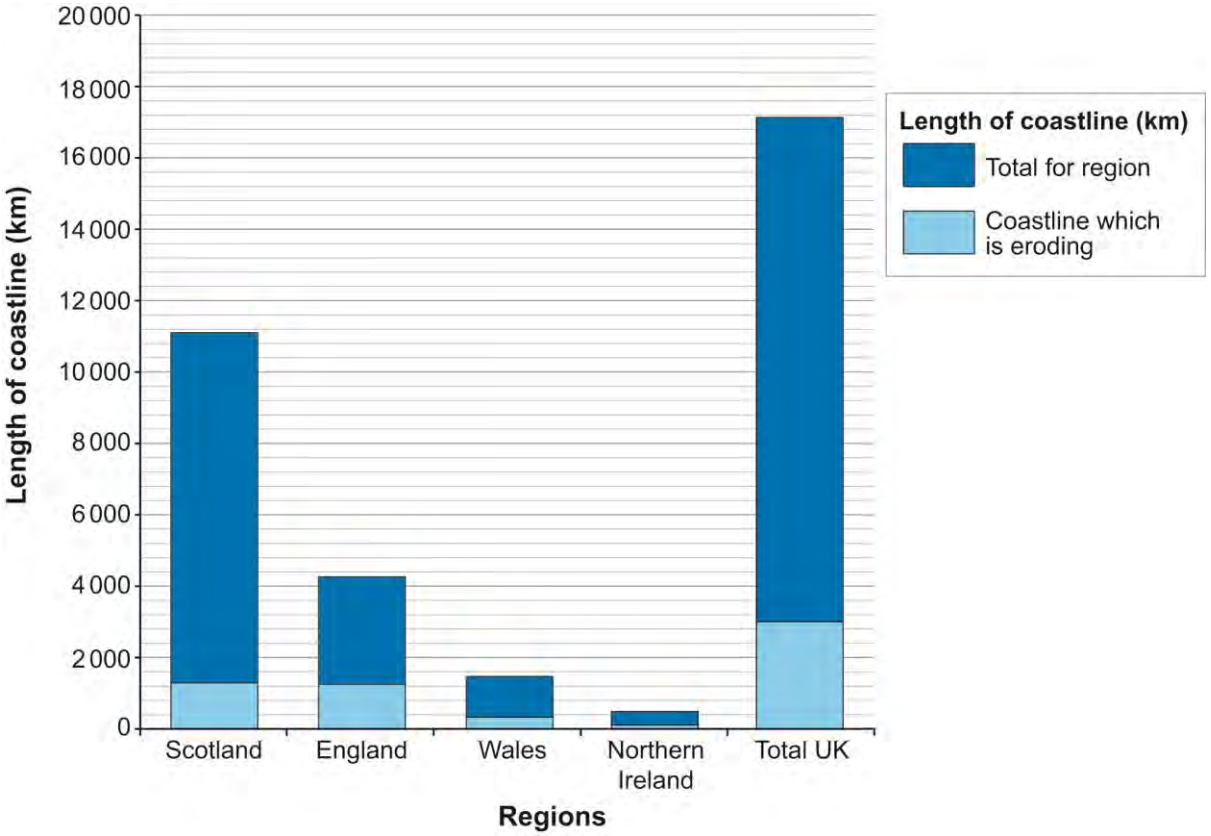
Figure 2: Erosion of the UK coastline



Region	Length of coastline (km)	Length of coastline eroding (km)	% of coastline which is eroding
Scotland	11 154	1 298	11.6
England	4 273	1 275	29.8
Wales	1 498	346	
Northern Ireland	456	89	19.5
Total UK	17 381	3 008	17.3

Source: www.mccip.org.uk

2. (a) (i) Use **Figure 2** to calculate the percentage (%) of coastline which is eroding in Wales. Show your workings.

Workings: *[insert 2 lines]*

Answer: *[insert 2 lines]* [2]

(ii) Use **Figure 2** to describe the extent of coastline erosion in Wales compared to that in Scotland. [3]

[insert 6 lines]

(b) Suggest **one** lithological factor that causes the rate of coastal erosion to vary. [3]

[insert 6 lines]

(c) Describe and explain why deposition plays a role in the development of tombolos. [8]

[insert 16 lines]

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Glaciated Landscapes

Answer questions 3 and 4 if this is your chosen landscape.

Figure 3: Photographs of Qori Kalis Glacier, Peru, in 1978 and 2011

Qori Kalis is the largest outlet glacier of the world's largest ice cap in the tropics, the Quelccaya Ice Cap, which lies on a plateau 5,691 metres high in the Andes mountains of Peru. In 1978 the glacier was still advancing. By 2011, the glacier had retreated, leaving a lake some 35 hectares in area and about 200 feet (60 metres) deep.

3. (a) **Use Figure 3** to describe changes to the landscape between 1978 and 2011. [5]

[insert 10 lines]

(b) Suggest how the changes shown in **Figure 3** could lead to a glacial lake outburst flood (GLOF). [3]

[insert 6 lines]

(c) Describe and explain why glacial deposition plays a role in the formation of terminal moraines.

[8]

[insert 16 lines]

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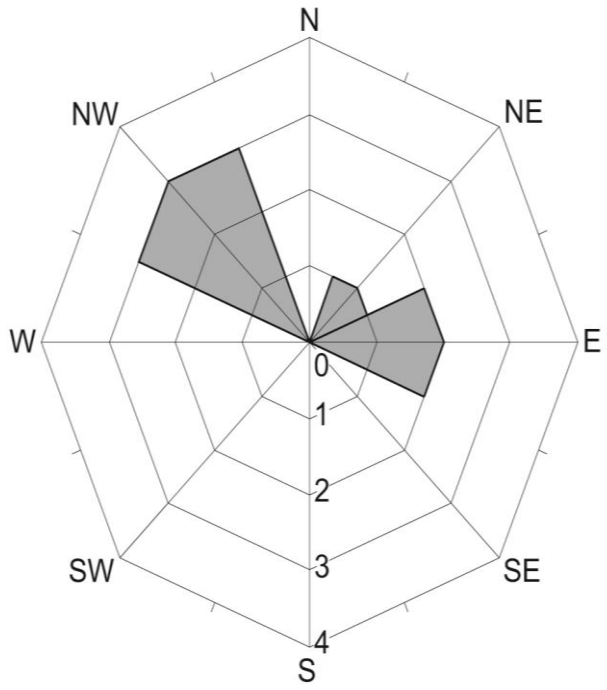
Figure 4: The orientation of 10 selected cirques in Wales

Figure 4a: Rose diagram of 10 cirques in Wales



Key: Number of cirques (1 to 4)

Figure 4b: Table of named cirques and their orientation

	Name of cirque	Orientation
A	Craig Maesglas	NE
B	Craig Portas	N
C	Glaslyn	E
D	Llyn Bochlwyd	N
E	Llyn Cau	E
F	Llyn Coch	NW
G	Llyn Du'r Arddu	NW
H	Llyn Gafr	NW
I	Llyn Llydaw	N
J	Llyn y Gadair	N

Source: http://physio-geo.revues.org

4. (a) (i) Use the data in **Figure 4b** to complete the rose diagram for the orientation of cirques in Wales. [2]

(ii) Describe the pattern of orientations shown in **Figure 4.** [3]

[insert 6 lines]

(b) Suggest **one** reason for the pattern shown in **Figure 4.** [3]

[insert 6 lines]

(c) Describe and explain why freeze-thaw weathering plays a role in the formation of cirques. [8]

[insert 16 lines]

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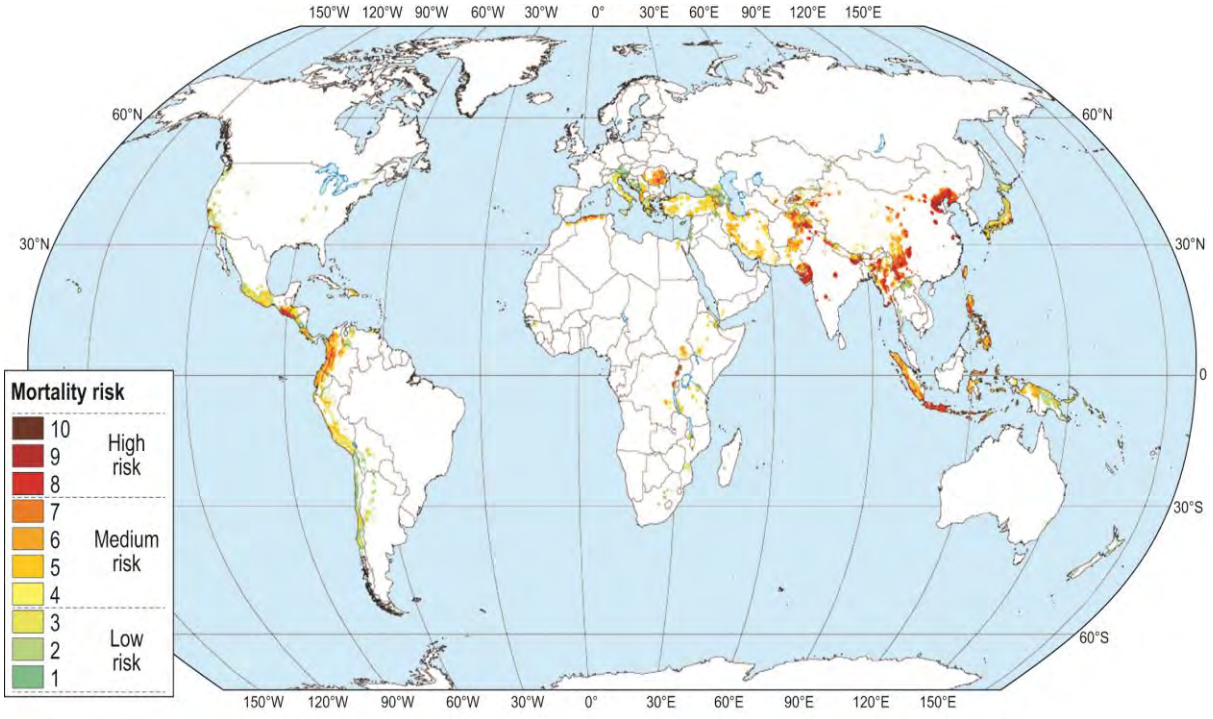
Section B: Tectonic Hazards

*Answer **all** questions.*

Where possible, make full use of examples and data to support your answers.

Figure 5: Mortality risk associated with earthquakes



Source: http://www.preventionweb.net

5. (a) (i) Use **Figure 5** to describe the distribution of areas with a high mortality risk associated with earthquakes. [5]

[insert 10 lines]

(ii) Suggest **three** human factors that may explain why the areas shown in **Figure 5** have a high mortality risk. [9]

[insert 18 lines]

(b) Outline how the following characteristics affect the level of impact of a tectonic hazard. [8]

Magnitude: *[insert 4 lines]*

Speed of onset: *[insert 4 lines]*

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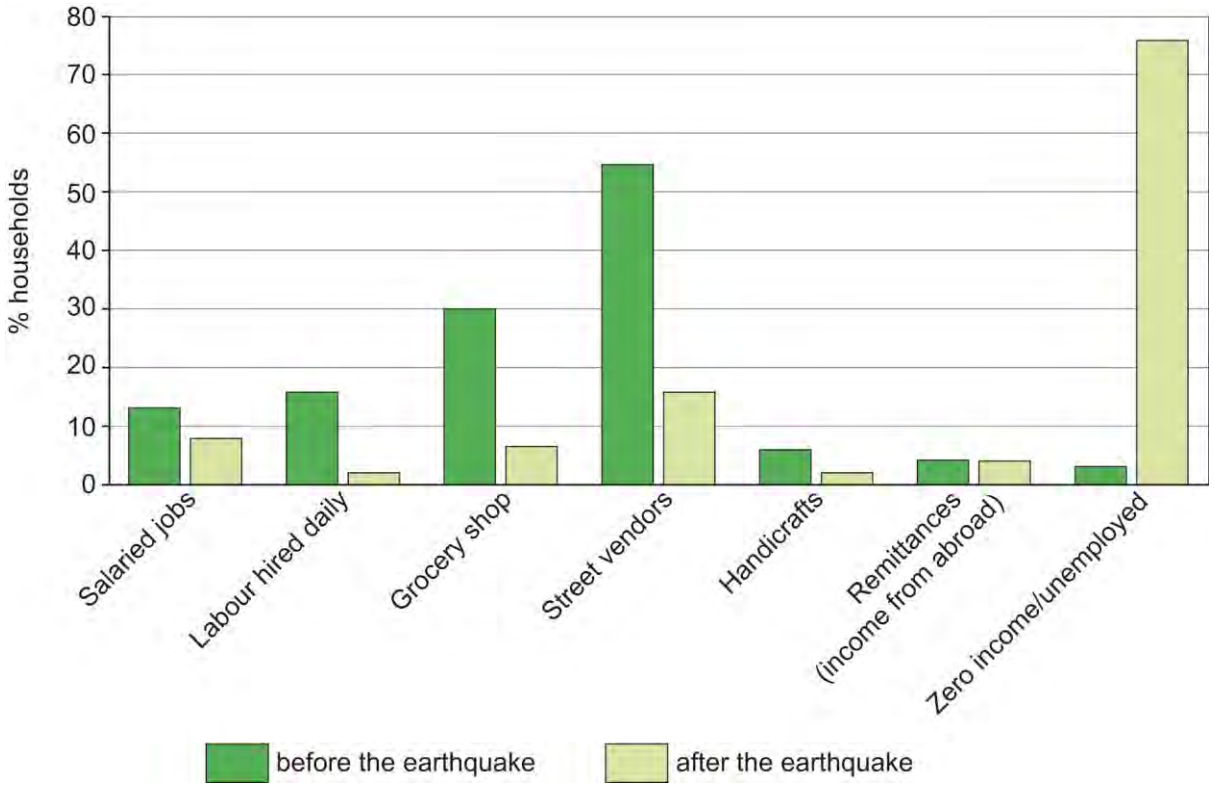
Figure 6: Sources of household income in the shanty towns of Port-au-Prince, Haiti, before and after the earthquake of 12 January 2010.

Note: Households may have more than one source of income.



Source: http://www.cash/learning.org

6. (a) Use **Figure 6** to describe changes in the source of household income before and after the 2010 Haiti earthquake. [5]

[insert 10 lines]

(b) Explain how earthquakes produce tsunamis. [5]

[insert 10 lines]

(c) Suggest the short-term responses that could be used to mitigate the consequences of changes shown in **Figure 6.** [10]

[insert 20 lines]

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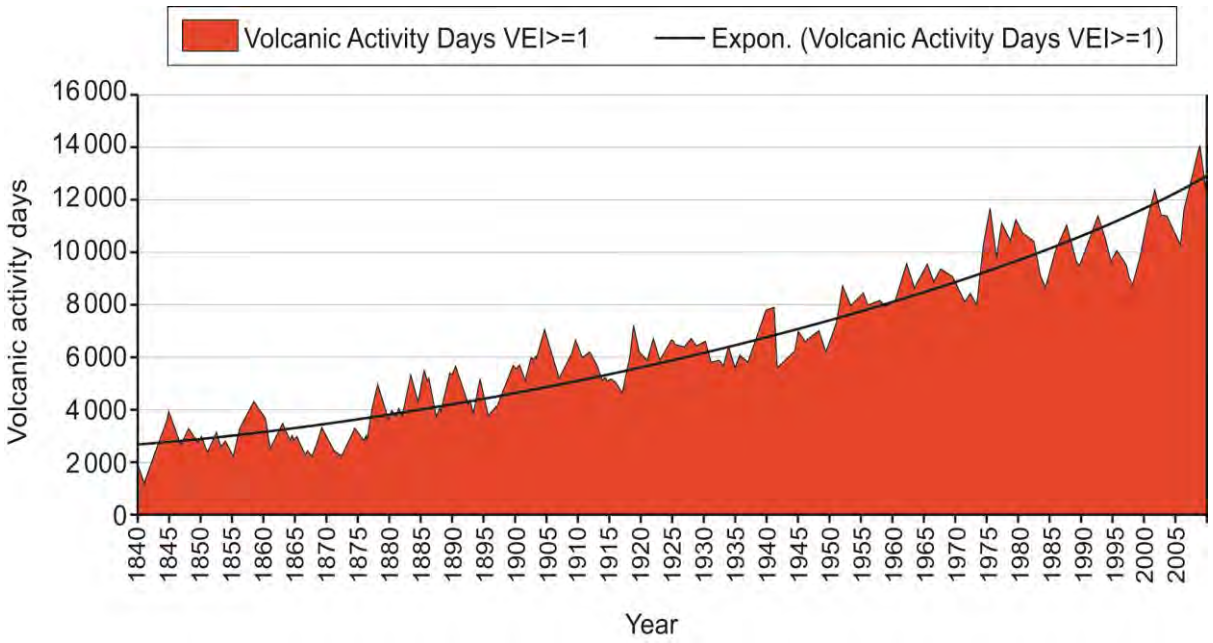
Figure 7a: Global Volcanism 1840-2008



7. (a) (i) Use **Figure 7a** to describe trends in global volcanism. [5]

[insert 10 lines]

(ii) Outline **two** reasons why these trends may not be accurate. [4]

[insert 8 lines]

Figure 7b: Sinabung volcano in Sumatra, Indonesia blowing a black cloud of volcanic ash after the eruption on October 29, 2014.

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7 (b) Use **Figure 7b** to suggest how people living in the homes shown would be affected by the ash cloud [3]

[insert 6 lines]

(c) Describe the demographic and economic impacts of the eruption of **one** volcano. [10]

[insert 20 lines]

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