Surname	Centre Number	Candidate Number
Other Names		2

GCE AS

B110U10-1

S19-B110U10-1

TUESDAY, 14 MAY 2019 – AFTERNOON

GEOGRAPHY – AS component 1
CHANGING LANDSCAPES

2 hours 15 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
Either 1 and 2 or **3 and 4**	**15**	
	20	
5.	**40**	
6.	**35**	
7.	**10**	
Total	**120**	

B110U101 01

ADDITIONAL MATERIALS

- 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** (Tectonic Hazards) and **all** questions in Section **C** (Challenges in the 21st Century).

Use 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 further space is required you should use the continuation page(s) 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 answer. Sketch maps and diagrams should be included where relevant.

A plain page is available at the end of each section for you to add any relevant sketch maps and diagrams you may wish to include. The question number(s) should be clearly shown.

Section A: Changing Landscapes

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

Make the fullest possible use of examples and data to support your answers.

Either: Coastal Landscapes

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

Figure 1a: Coastal landscape at Poole, Dorset, UK

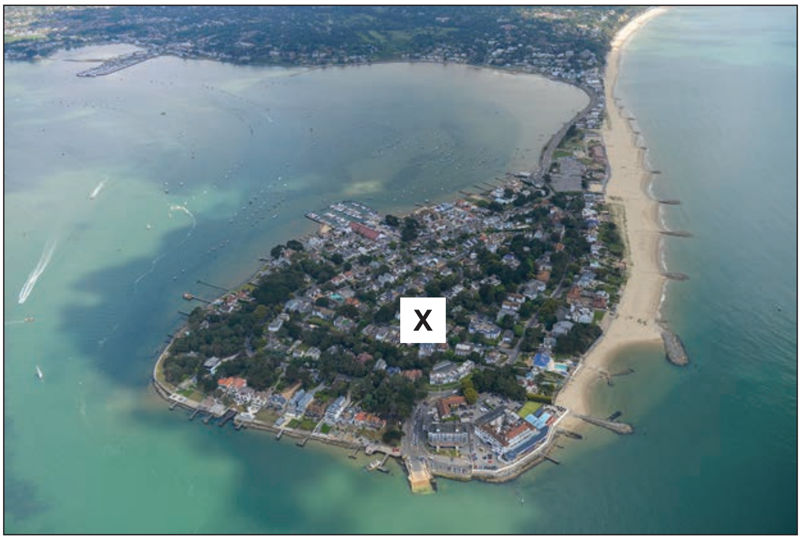
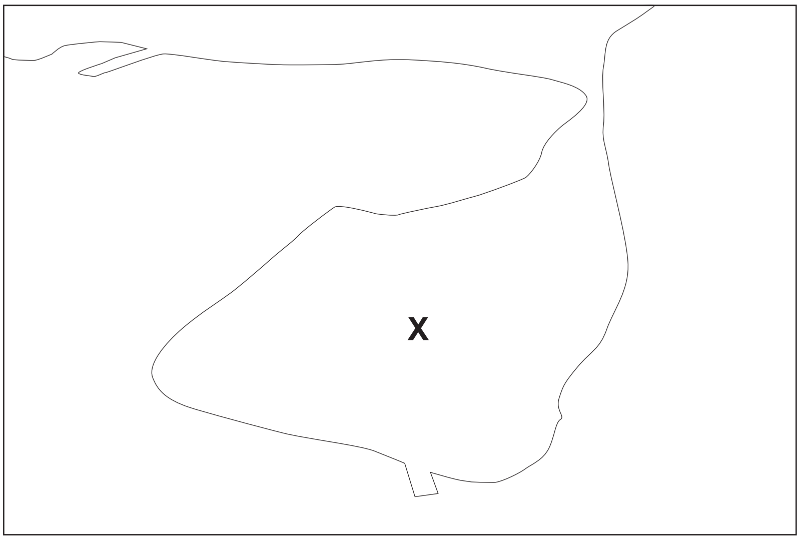


Figure 1b: Sketch of coastal landscape in Figure 1a

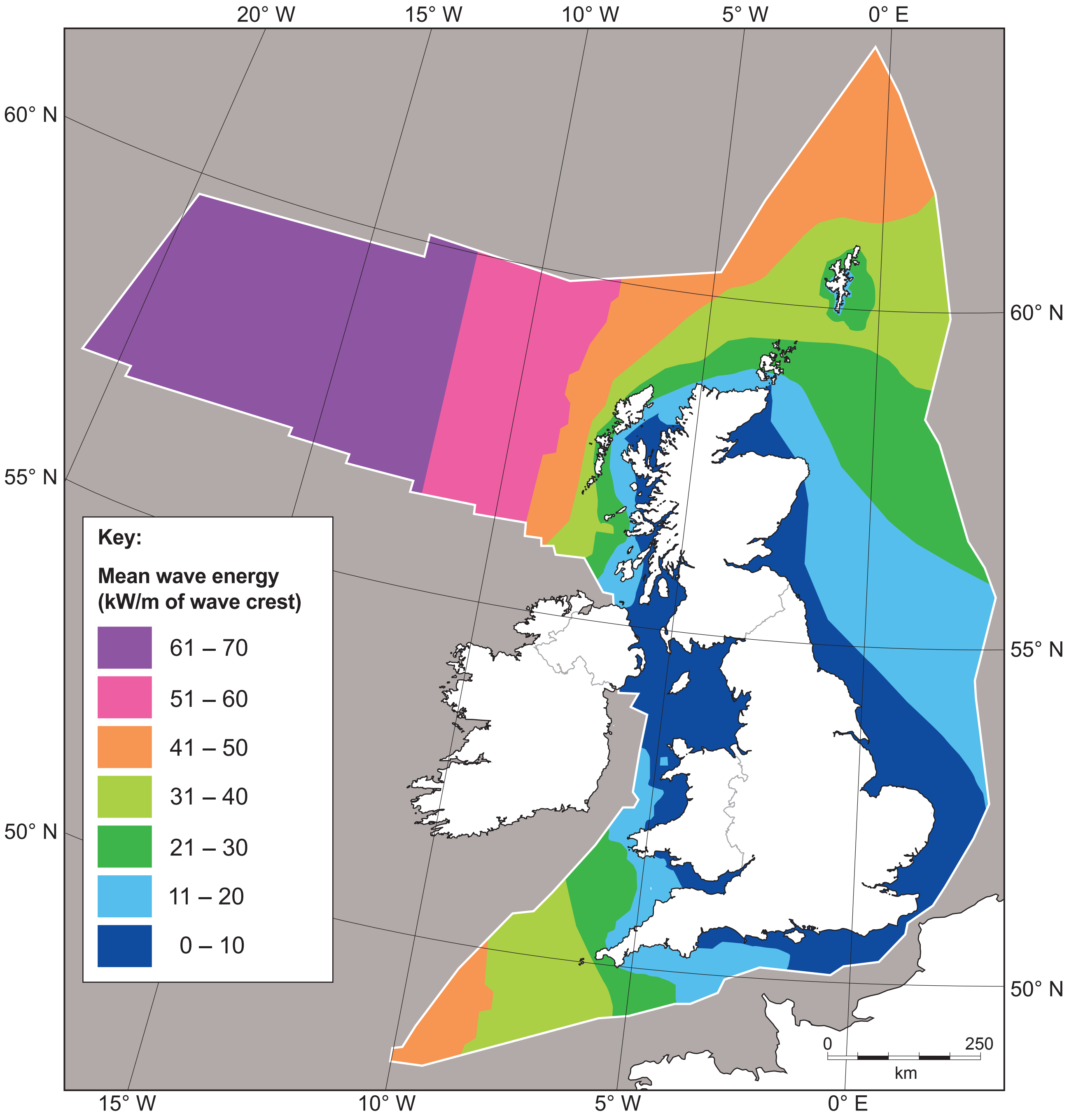


1. *(a)* Label **Figure 1b** to explain the processes responsible for the formation of landform **X**. [5]

(b) Examine the role that wind plays in the development of a coastal sand dune. [10]

Additional space for Question **1**(b):

Figure 2: Mean annual wave energy in UK territorial waters



Source: http://www.prowavetech.co.uk

2. *(a)* Use **Figure 2** to describe the pattern of wave energy. [5]

Examiner only

(b) Discuss the impact of **either** eustatic **or** isostatic sea level changes on the development of **one** coastal landform. [15]

B110U101 05

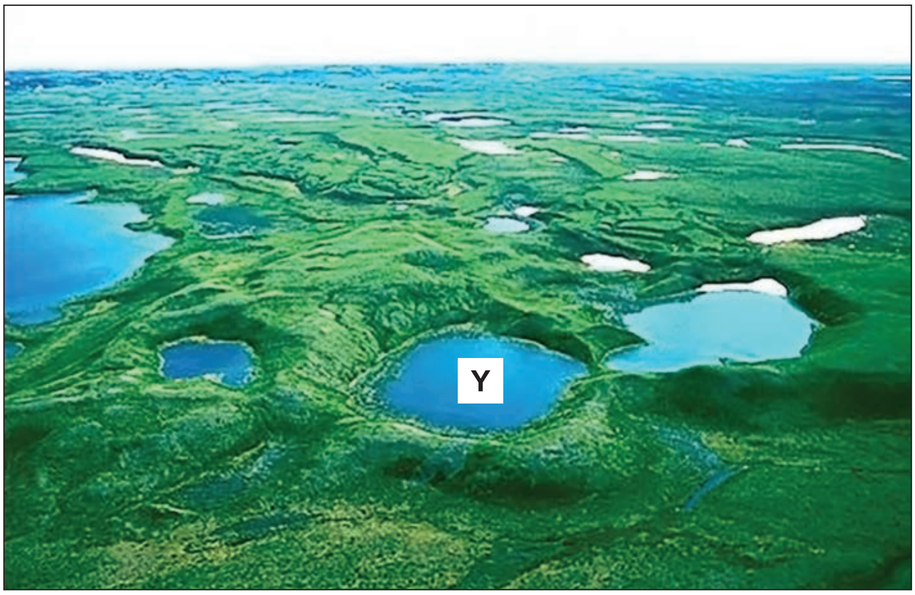
Additional space for Question **2***(b)*:

BLANK PAGE

Or: Glaciated Landscapes

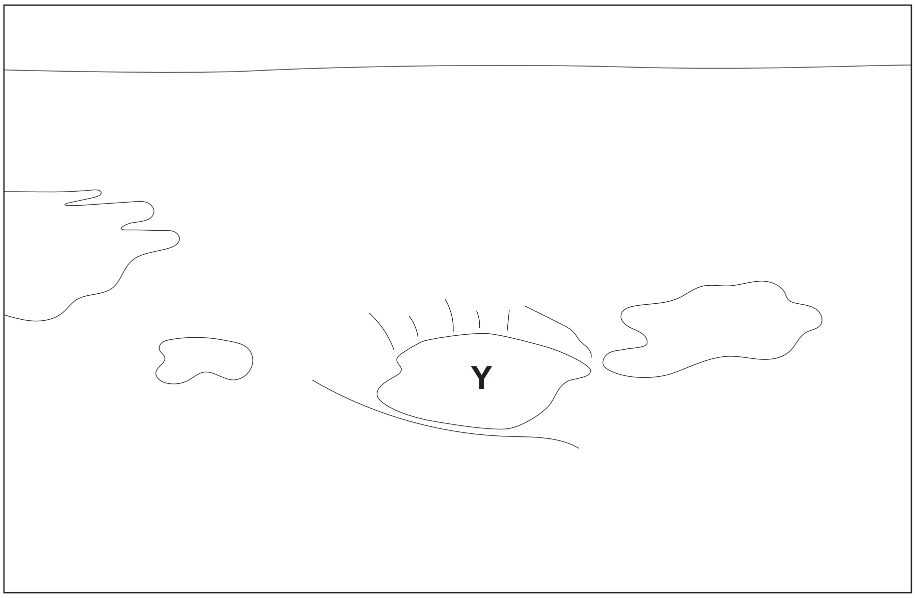
Answer questions 3 **and** *4 if this is your chosen landscape.*

Figure 3a: Glaciated landscape at Twin Lakes, Michigan, USA



Source: https://www.mtu.edu/geo

Figure 3b: Sketch of glaciated landscape in Figure 3a



3. *(a)* Label **Figure 3b** to explain the processes responsible for the formation of landform **Y**. [5]

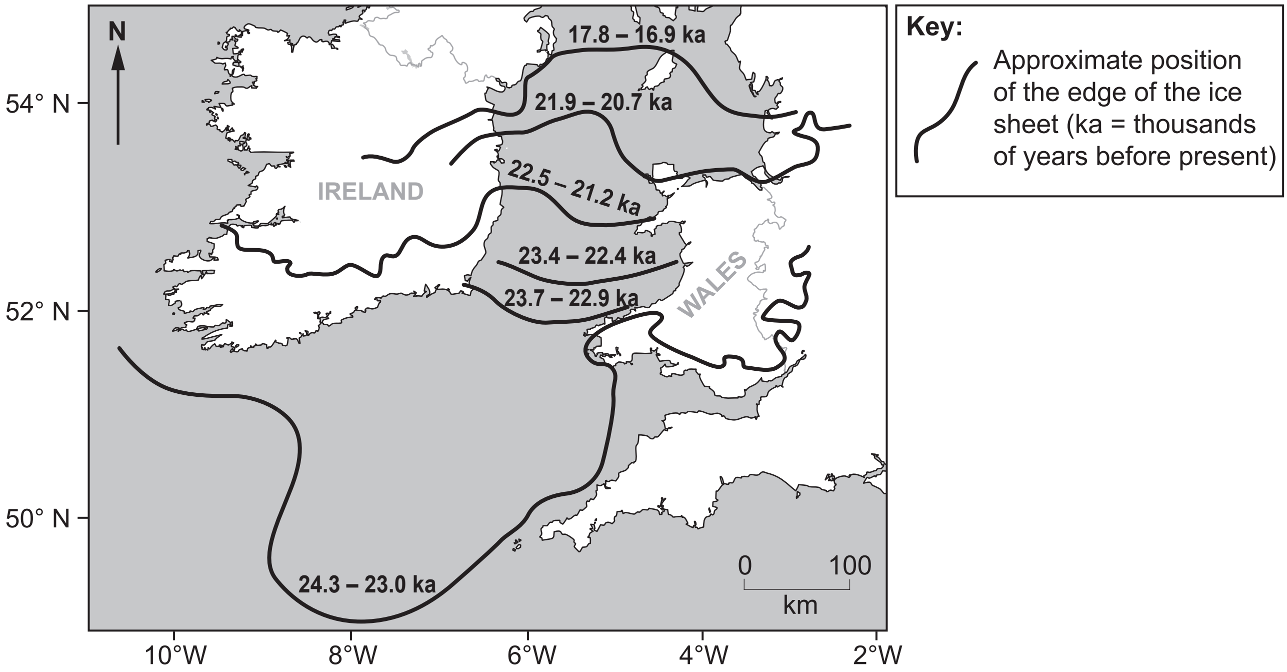
Examiner only

(b) Contrast some of the features of highland and lowland glacial landscapes. [10]

Additional space for Question **3***(b)*:

B110U101
09

Figure 4: Retreat of the last Quaternary ice sheet in the Irish Sea



Source: https://www.researchgate.net

4. *(a)* Use **Figure 4** to describe the pattern of ice retreat. [5]

....

....

....

....

....

....

....

....

....

....

(b) Discuss the view that the most significant changes to glacial landscapes happen over millennia. [15]

Examiner only

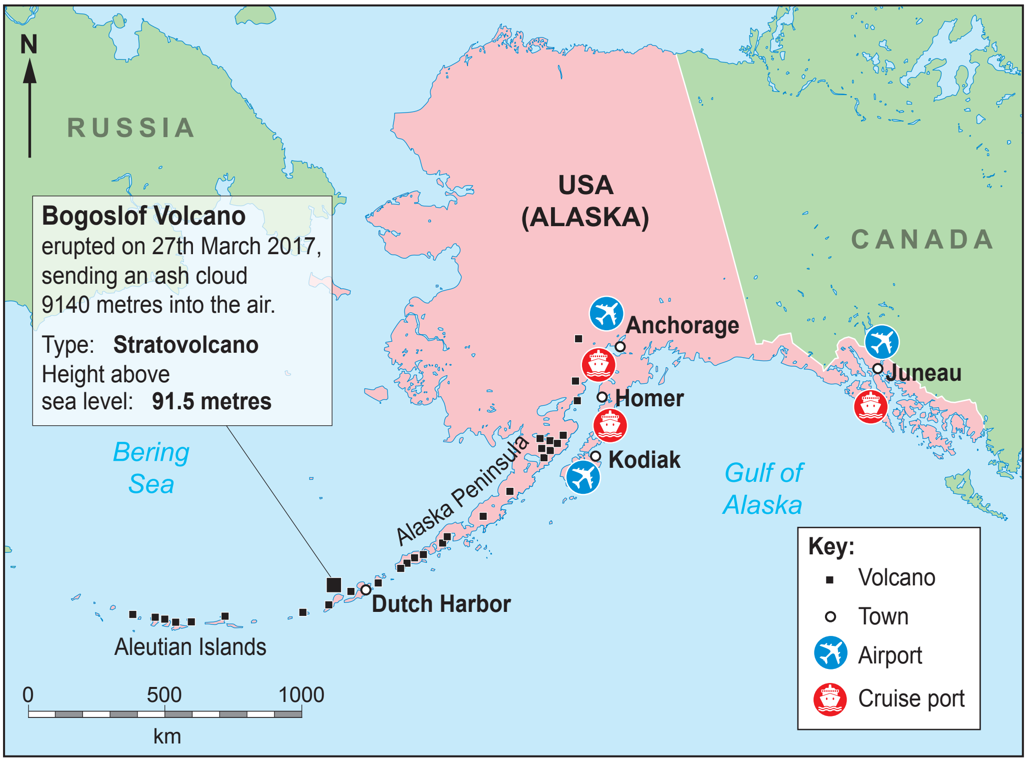
Additional space for Question **4**_(b)_:

Section B: Tectonic Hazards

Answer **all** *questions.*

Make the fullest possible use of examples and data to support your answers.

Figure 5: Eruption of Bogoslof Volcano, Alaska, USA



Source: https://www.seattletimes.com

5. *(a)* Use **Figure 5** to suggest the impacts of the volcanic eruption on the region shown. [5]

....

....

....

....

....

....

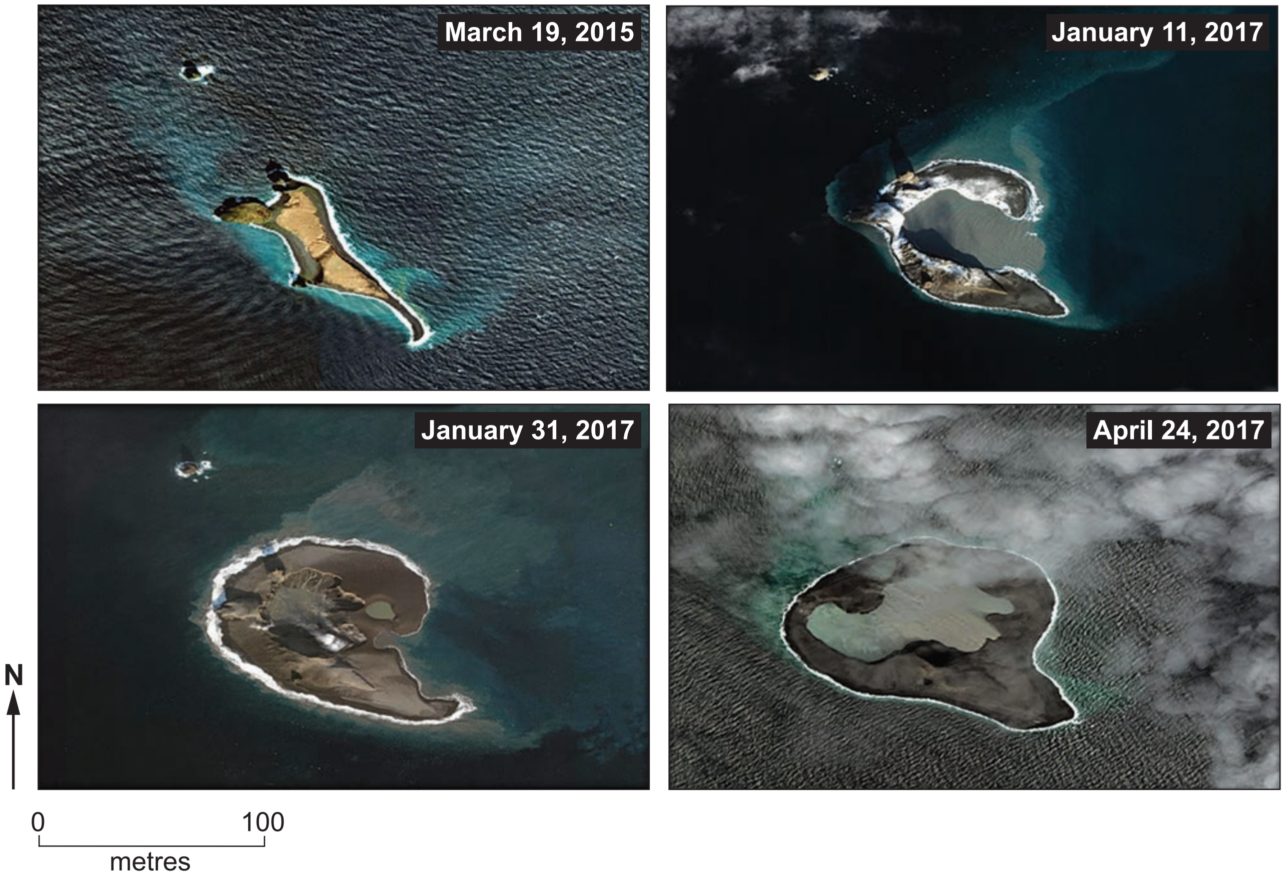
....

....

....

....

Figure 6: Satellite images of Bogoslof volcanic island, Alaska, USA



Source: https://eros.usgs.gov

(*b*) Use **Figure 6** to describe the changes in Bogoslof volcanic island. [5]

Figure 7: Changes to area of Bogoslof volcanic island, Alaska, USA

Date	Island Area (km^2)
19th March 2015	0.288
25th December 2016	0.293
11th January 2017	0.437
24th January 2017	0.623
31st January 2017	1.020
24th April 2017	1.290

Source: https://watchers.news

(c) (i) Use **Figure 7** to calculate the total area of land created between 11th and 31st January 2017. Show your workings and give your answer to 2 decimal places. [2]

.... km^2

(ii) Use **Figure 7** to calculate the percentage growth of Bogoslof Island from 19th March 2015 to 24th April 2017. Show your workings and give your answer to 2 decimal places. [3]

.... % growth

(iii) Name a suitable graphical method for representing the data in **Figure 7**. [1]

....

(iv) Justify your choice of method in *(c)*(iii). [4]

....

....

....

....

....

....

....

....

(d) (i) Outline the main characteristics of **two** types of volcanic eruption. [6]

(ii) State **one** reason why few deaths are caused by lava flows. [2]

Examiner only

(e) ‘Volcanoes only generate hazards at the local scale.’ Discuss. [12]

Additional space for Question **5**_(e)_:

6. *(a)* Examine the view that earthquake hazards impact countries with low levels of development more significantly than countries with high levels of development. [15]

Additional space for Question **6***(a)*:

(b) Evaluate the responses to **two** tectonic events. [20]

Additional space for Question **6***(b)*:

Section C: Challenges in the 21st Century

Answer **all** *questions.*

Make the fullest possible use of examples and data to support your answers.

7. To what extent do changing landscapes improve the economic characteristics of places? [10]

In your answer to question 7, you may make use of the material in **Figures 8** and **9** and apply your own knowledge and understanding.

Figure 8: A liquefied natural gas tanker at the South Hook LNG Terminal, Milford Haven, Wales, UK

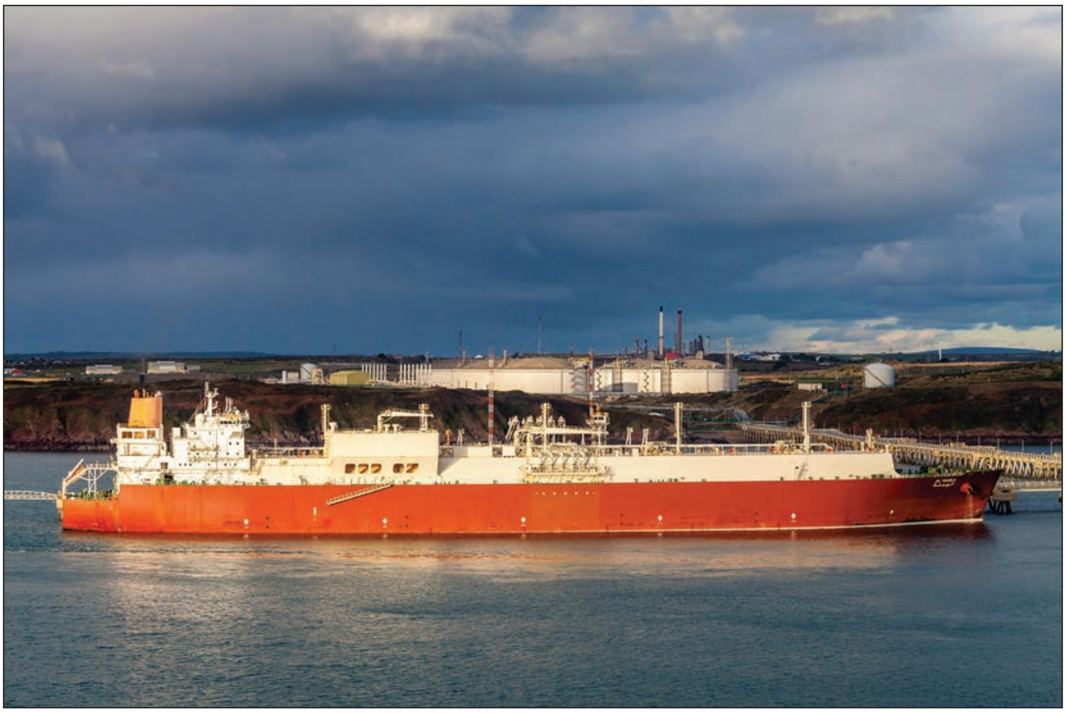
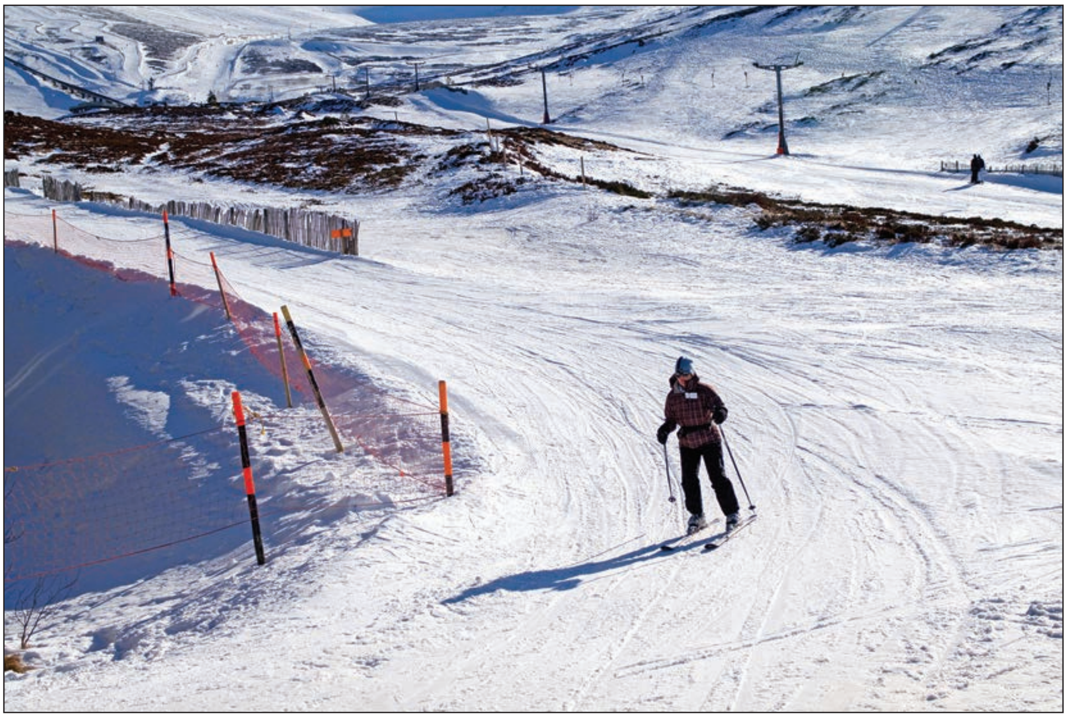


Figure 9: Cairngorm Mountains ski centre, Aviemore, Scotland, UK



Additional space for Question **7**:

END OF PAPER

For continuation only.

For continuation only.

Examiner only

For continuation only.

Examiner only

For continuation only.

BLANK PAGE