Centre Number			Candidate Number		
Surname					
Other Names					
Candidate Signature					



General Certificate of Secondary Education Higher Tier June 2012

40352H

Geography (Specification B)

Unit 2 Hostile World

Monday 18 June 2012 9.00 am to 10.00 am

You will need no other materials.	
You may use a calculator.	

Time allowed

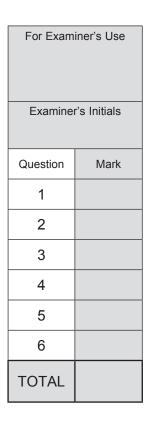
1 hour

Instructions

- Use black ink or black ball-point pen. You may use pencil for maps, diagrams and graphs.
- Fill in the boxes at the top of this page.
- Answer either Section A (Questions 1 to 3) or Section B (Questions 4 to 6).
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.
- Use your case studies to support your answers where appropriate.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 50.
- You are reminded of the need for good English and clear presentation in your answers. Where applicable, questions should be answered in continuous prose. Quality of Written Communication will be assessed in all answers.



Answer either Section A (Questions 1 to 3) or Section B (Questions 4 to 6).

Section A – Living with Natural Hazards

Use your case studies to support your answers where appropriate.

Total for this question: 18 marks

1 Study **Figure 1**. **Figure 1** shows the distribution of earthquakes and active volcanoes in and around Indonesia, south-east Asia.

Figure 1

Figure 1, which shows a map of the distribution of earthquakes and active volcanoes in and around Indonesia, is not reproduced here due to third-party copyright constraints.

Describe the distribution of active voicances snown in Figure 1.				
(2 marks	 arks)			



1 (b)	Explain why there are earthquakes in and around Indonesia. Use Figure 1 and your own knowledge.
	(5 marks)
	Extra space
	Question 1 continues on the next page



1 (c) Study Figure 2. Figure 2 gives information about a volcanic eruption in Indonesia (2010).

Figure 2

29 August 2010: Volcano erupts in Indonesia

Mount Sinabung erupted for the first time in 400 years. Before the eruption, the volcano had been smoking for several days but the volcano was not thought to be dangerous and no warnings were given. When the volcano erupted, smoke and ash went 1500 m into the air and lava rushed down the mountainside. Ash and smoke from the volcano covered villages and crops and many people suffered breathing problems. Electricity in some villages was cut off. The eruption took people by surprise and 19000 people were evacuated to emergency shelters. The government set up food kitchens for the refugees and gave out 7000 masks. Since the eruption, scientists have monitored Mount Sinabung. People were not allowed to return to their homes until officials were sure the danger from the volcano was over.



1 (c) (i)	Describe the location of Mount Sinabung within Indonesia.				
	(2 marks)				



1 (c) (ii)	'The eruption took people by surprise.' Suggest one reason for this.
	(1 mark)
1 (c) (iii)	Describe short-term responses to a volcanic eruption. Use Figure 2 and your own knowledge.
	(4 marks)
	Question 1 continues on the next page



1 (d)	Study Figure 3.	Figure 3 shows a method of reducing the damaging	effects of
	earthquakes.		

Figure 3

Figure 3 is not reproduced here due to third-party copyright constraints. Figure 3 shows a building which has been earthquake proofed.

Suggest how the damaging effects of earthquakes on buildings can be reduced. Use Figure 3 and your own knowledge.
(4 marks)
Extra space







To	otal	for	this	question:	15	marks
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2 (a) Study Figure 4. Figure 4 gives information about tropical storms in and around Australia (1990 to 2007).

Figure 4

Figure 4 is not reproduced here due to third-party copyright constraints. Figure 4 shows a map of Australia, containing the landfall points of severe tropical storms.

2	(a)	(i)	Complete	the	paragraph	below.
---	-----	-----	----------	-----	-----------	--------

The area with the most tropical storms is off the	
coast of Australia, at latitude	3
south and longitude 117 degrees east. No severe tropical storms made landfa	all
south of the	(3 marks)

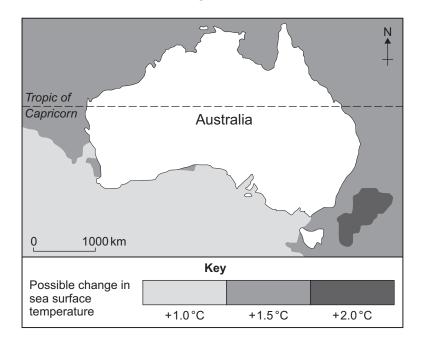


2 (a) (ii)	Sea surface temperatures in the area shown as X on Figure 4 are above 27°C. Explain how tropical storms form in this area.
	(6 marks)
	Extra space
	Question 2 continues on the next page



2 (b) Study **Figure 5**. **Figure 5** shows how sea surface temperatures around Australia might change between 2010 and 2030.

Figure 5



2 (b) (i)	Describe possible changes to sea surface temperature around Australia, as shown in Figure 5 .								
	(2 marks								



2 (b) (ii)	Suggest how changes to sea surface temperatures around Australia might affect tropical storms in the future.						
	(4 marks)						

15

Turn over for the next question



Total for this question: 17 marks

 $\Delta\Delta\Delta$

Sea

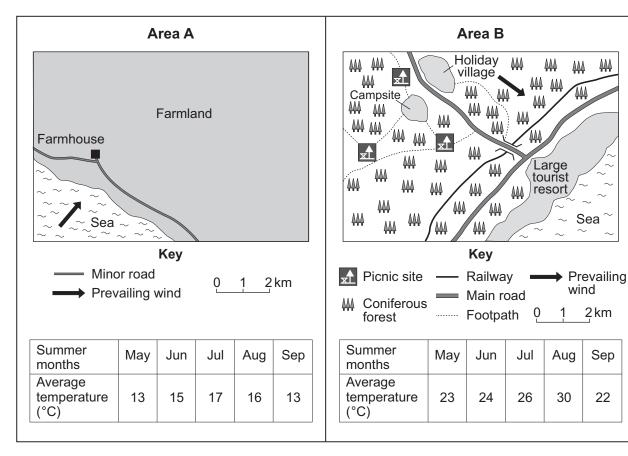
2km

Sep

22

3 (a) Study Figure 6. Figure 6 gives information about two coastal areas.

Figure 6



3 (a) (i)	Compare the average temperatures in Area A with the average temperatures in Area B , as shown in Figure 6 .					
	(3 marks)					

3 (a) (ii)	Which of the areas in Figure 6 (A or B) is more at risk from wildfires?						
	(1 mark)						
3 (a) (iii)	Explain your answer to Question 3(a)(ii) above. Use Figure 6 and your own knowledge.						
	(5 marks)						
	Extra space						
	Question 3 continues on the next page						



3 (b) Study Figure 7. Figure 7 shows a method used to reduce the number of wildfires.

Figure 7



·					
Do you agree?					
YES NO					
Give reasons for your decision. Use Figure 7 and your own knowledge.					

'The method shown in Figure 7 is the best way of reducing the number of wildfires.'



(8 marks)	
Extra space	

17

End of Section A



Answer either Section A (Questions 1 to 3) or Section B (Questions 4 to 6).

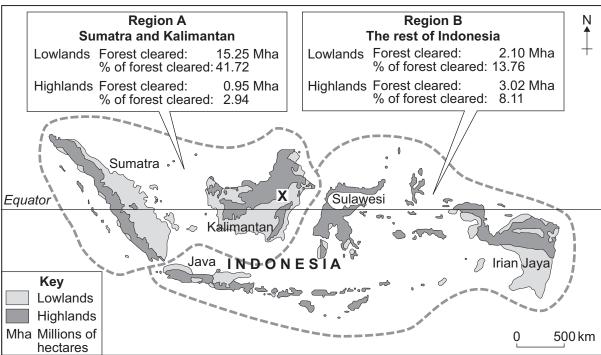
Section B – The Challenge of Extreme Environments

Use your case studies to support your answers where appropriate.

Total for this question: 16 marks

4 (a) Study Figure 8. Figure 8 shows the amounts of deforestation in Indonesia.

Figure 8



4 (a) (i)	State two differences in the amounts of deforestation between the two regions of
4 (a) (i)	Indonesia shown in Figure 8 .
	1
	2
	/2 marks
	(2 marks)

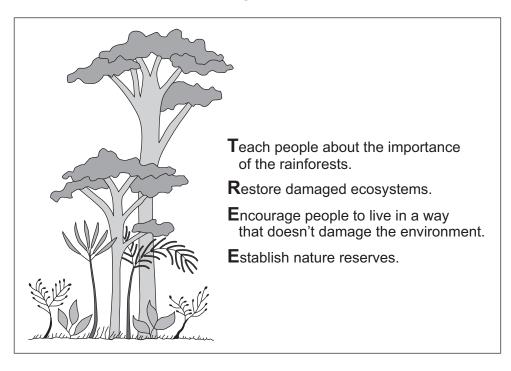


4 (a) (ii)	The annual rainfall total in the area shown as X in Figure 8 is 2862 mm.					
	Explain how climate affects the type and range of vegetation in tropical rainforests.					
	(6 marks)					
	Extra space					
	Question 4 continues on the next page					



4 (b)	Study Figure 9.	Figure 9 shows how tropical rainforest environments could be
	managed.	

Figure 9



'The method	l shown i	n Figure	9 is the	e best	way	to mana	age 1	tropical	rainf	orest
environment	is.'									

D	0	you	ag	ree?

YES	NO	0				
Give reasons for your decision. Use Figure 9 and your own knowledge.						



(8 marks
Extra space

16

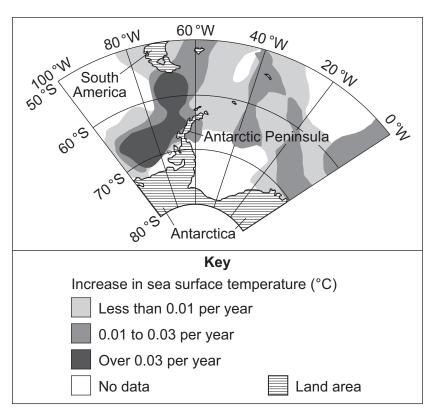
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Total for this question: 15 marks

5 (a) Study Figure 10. Figure 10 shows annual increases in sea surface temperature around Antarctica between 1955 and 2000.

Figure 10



Complete the paragraph below.

The sea area with the greate	st increase in surface temperature was to the north
and	of the Antarctic Peninsula, between latitudes 56 degrees
south and	degrees south. In this area the sea surface
temperature increased by	°C each year.
	(3 marks)

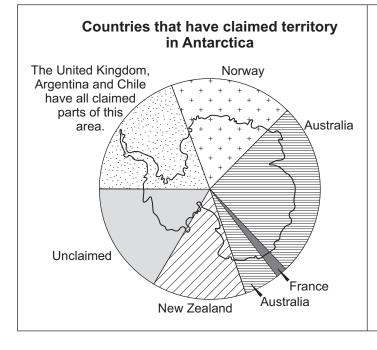


5 (b)	Explain how global warming could affect a cold environment. Use an example(s) you have studied.
	(5 marks)
	Extra space
	Question 5 continues on the next page



5 (c) Study **Figure 11**. **Figure 11** gives information about Antarctica.

Figure 11



Claims on territory were halted by the Antarctic Treaty (1998). The Treaty allows Antarctica to be used for scientific research but not for military activity. Countries wanted territory in Antarctica so they could fish, catch whales and search for minerals. However, the Antarctic Treaty banned mining for 50 years and put quotas on the numbers of fish and whales that could be caught. The number of tourists in Antarctica is increasing. The International Association of Antarctic Tour Operators (IAATO) was set up to encourage responsible tourism.

Some countries have claimed territory in Antarctica. Give one reason for this.	
(1 mari	 k)
Identify two features of the territorial claims in Antarctica shown on the map in Figure 11 .	
1	
2	
	(1 mark



5 (c) (iii)	Describe how organisations have responded to the environmental threats to Antarctica. Use Figure 11 and your own knowledge.
	(4 marks)

<u> 15</u>

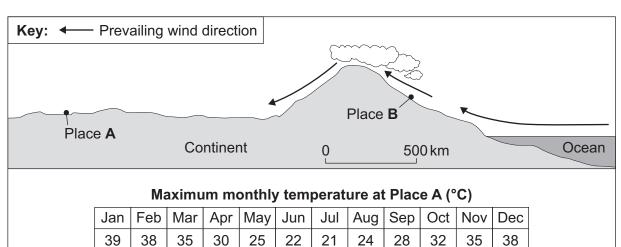
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Total for this question: 19 marks

6 (a) Study **Figure 12**. **Figure 12** shows the locations of two places and gives information about maximum monthly temperatures in each place.

Figure 12



Maximum monthly temperature at Place B (°C)

[B 4	Δ.				_		, ·	, N	_
	Jan	reb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	31	30	28	24	20	16	15	17	20	24	27	29

6 (a) (i)	Compare the maximum monthly temperatures in Place A with the maximum monthly temperatures in Place B .
	(2 months)
	(3 marks)

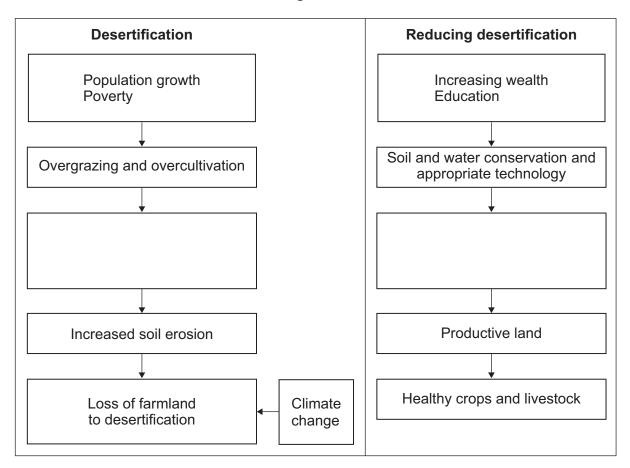


6 (a) (ii)	Which of the places in Figure 12 (A or B) is more likely to be in an area of hot desert?
	(1 mark)
6 (a) (iii)	Explain your answer to Question 6(a)(ii) above. Use Figure 12 and your own knowledge.
	(5 marks)
	Extra space
	Question 6 continues on the next page



6 (b) Study Figure 13. Figure 13 gives information about desertification.

Figure 13



6 (b) (i) Complete Figure 13.
Choose the **two** correct answers from those given below.

Reduced soil erosion Reforestation

Vegetation cover removed

(2 marks)

6 (b) (ii)	Suggest how climate change could increase the risk of desertification.
	(4 marks)
6 (b) (iii)	Suggest how desertification can be reduced. Use Figure 13 and your own knowledge.
	(4 marks)
	Extra space





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Figure 1: Earthquake Research Institute, The University of Tokyo

Figure 2: © BBC News Figure 4: Scienceray.com

Figure 5: Csiro & Bureau of Meteorology (2007) Climate Change in Australia technical report

Figure 8: mongabay.com
Figure 9: mongabay.com
Figure 10: British Antarctic Survey
Figure 11: British Antarctic Survey

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