

Centre Number						Candidate Number				
Surname										
Other Names										
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For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
5	
6	
TOTAL	



General Certificate of Secondary Education  
Higher Tier  
January 2012

# Geography (Specification B)

40352H

H

Unit 2 Hostile World

Tuesday 24 January 2012 1.30 pm to 2.30 pm

**For this paper you must have:**

- the insert (enclosed).
- 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.



J A N 1 2 4 0 3 5 2 H 0 1

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

**Section A – Living with Natural Hazards**

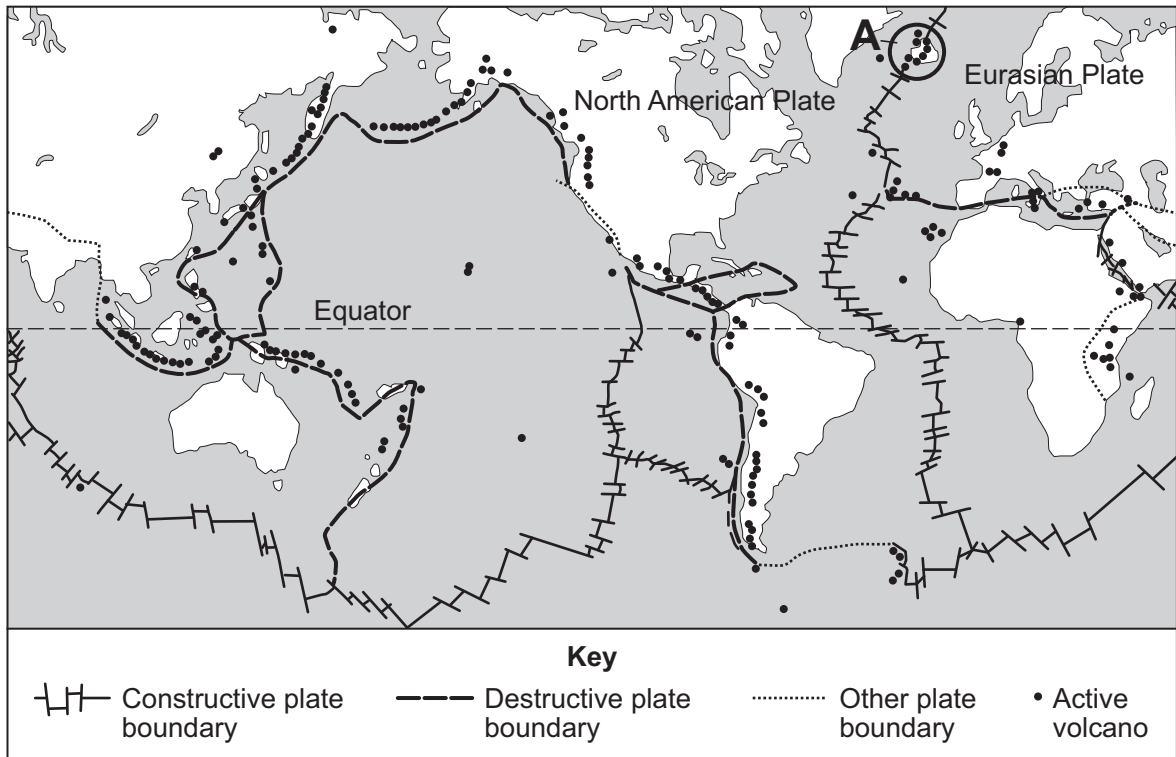
Use your case studies to support your answers where appropriate.

1

**Total for this question: 20 marks**

Study **Figure 1**. **Figure 1** shows the locations of plate boundaries and active volcanoes.

**Figure 1**



1 (a) (i) Describe the distribution of active volcanoes.

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(2 marks)



**1 (a) (ii)** Explain why there are volcanic eruptions in the area shown as **A** on **Figure 1**.

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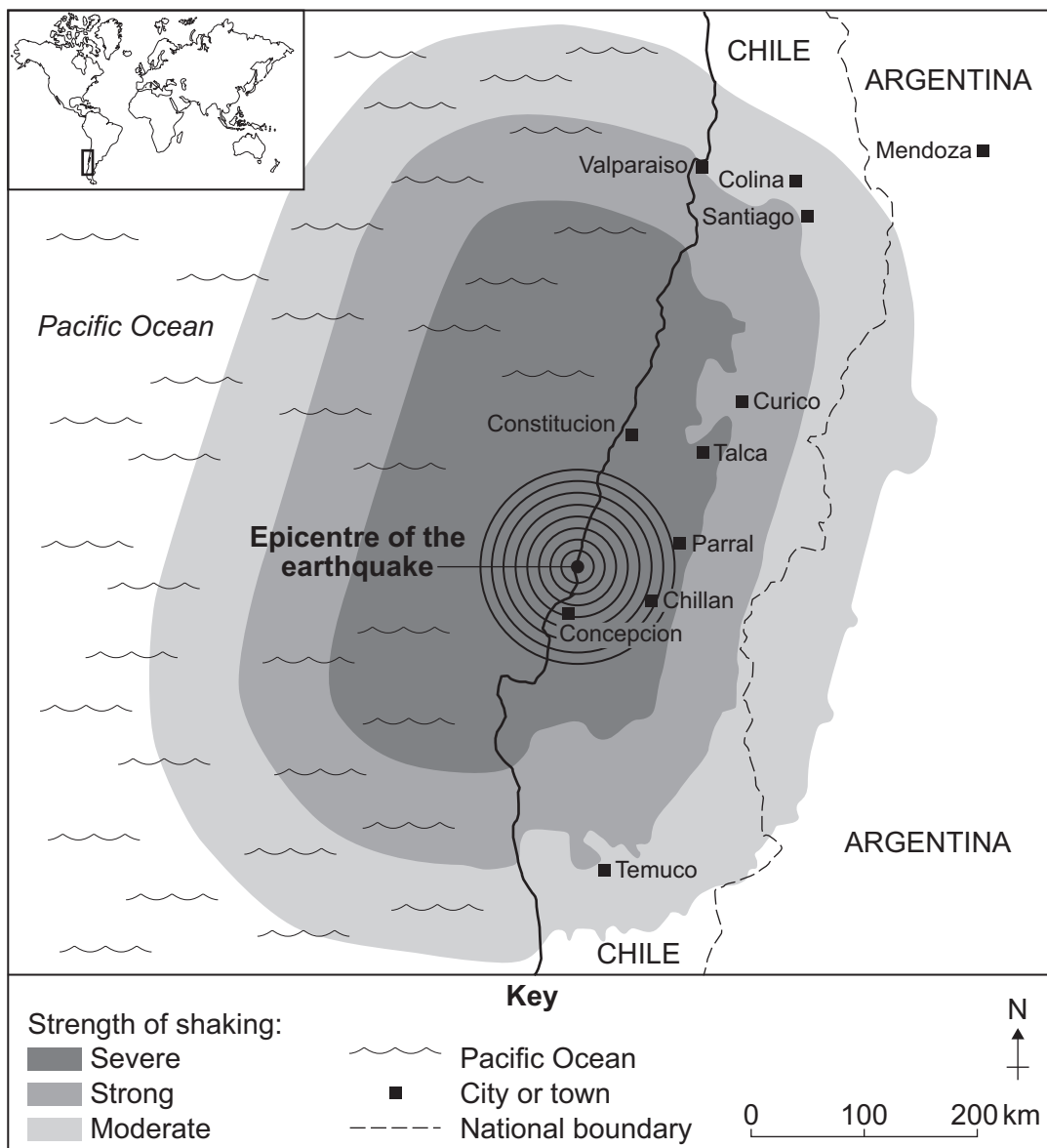
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1 (b) Study Figure 2. Figure 2 shows information about an earthquake in Chile (2010).

Figure 2

The earthquake damaged 1.5 million houses and killed 500 people. Hundreds of other people are missing. In Concepcion a bridge collapsed into the river. Electricity, water and telephone lines have been cut and rescuers found it difficult to reach the city because of damage to roads. In Santiago a car park collapsed, crushing many cars. A chemical factory caught fire and hundreds of people have been evacuated. Santiago airport was damaged and it was closed for 72 hours. Ports were hit by a 15 metre tsunami, and boats and containers were destroyed. Containers, shops and petrol stations have been looted. The President of Chile said money that should have been used for development projects would now have to be used to rebuild houses, hospitals, schools and roads. Rebuilding will take years and will cost at least £20 billion, which is 20% of Chile's Gross Domestic Product (GDP).



1 (b) (i) Describe the location of the earthquake epicentre.

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(2 marks)

1 (b) (ii) Explain how the earthquake affected the economy of Chile.  
Use evidence from **Figure 2**.

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1 (c) Complete the paragraph below, which explains why the effects of an earthquake differ among countries at different stages of development.

Circle the correct answer in **each** set of brackets.

In many less-developed countries, building [ **maps** / **codes** / **ages** ] are not enforced and shaking causes many buildings to collapse. Developed countries have the [ **debts** / **poverty** / **wealth** ] to be able to protect buildings and to manage emergency [ **responses** / **hazards** / **buildings** ] more effectively, in order to reduce loss of life.

(3 marks)

1 (d) Describe **two** long-term methods of planning **and/or** preparing for an earthquake which would be suitable for a less-developed country.

Method 1 .....  
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Method 2 .....  
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(4 marks)

<b>20</b>



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0 7

**2**

**Total for this question: 14 marks**

**2 (a)** Study **Figure 3**, on the insert. **Figure 3** is a map which shows the predicted path of a tropical storm (Hurricane Ike) in 2008.

**2 (a) (i)** Describe the predicted path of Hurricane Ike between 10 am on Thursday 11 September 2008 and 7am on Saturday 13 September 2008.

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*(2 marks)*

**2 (a) (ii)** Do you think that people living in the state of Louisiana should evacuate their homes?

Give reasons for your decision.

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**2 (a) (iii)** The cost of damage from tropical storms (hurricanes) in the coastal strip of the southern USA is very high.  
Suggest reasons for this.

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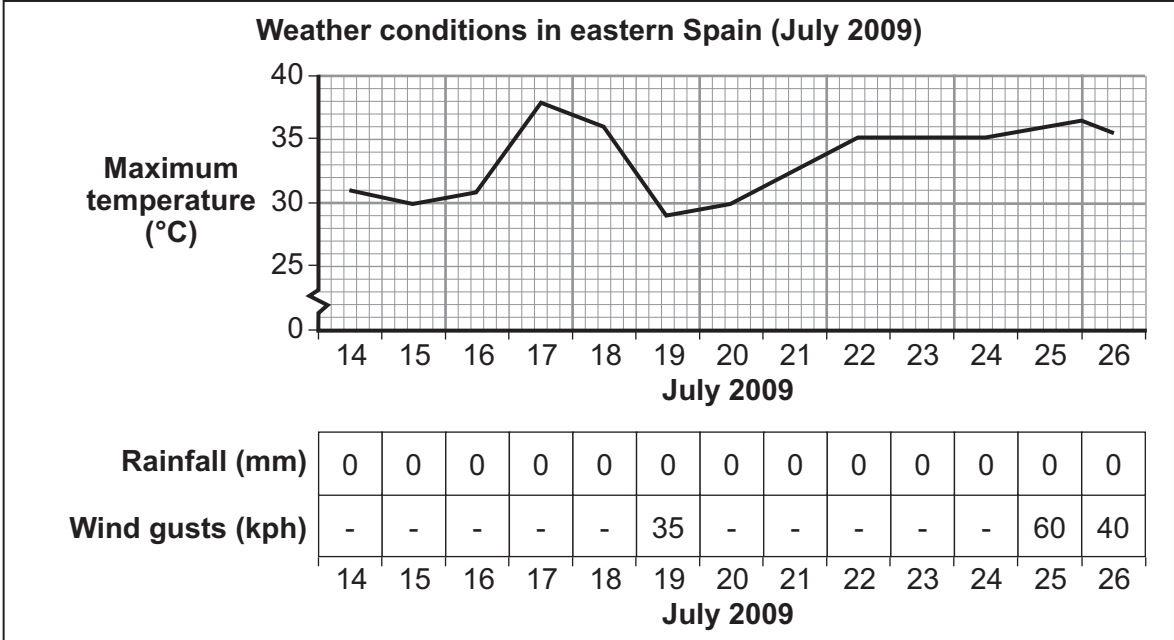
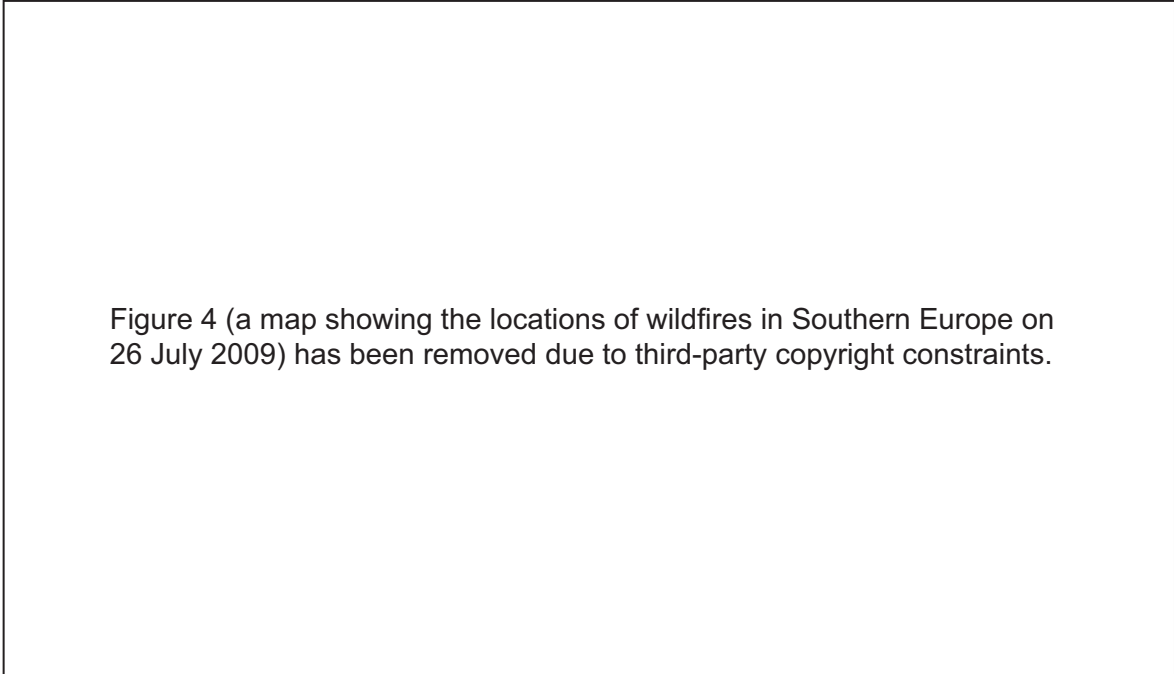


3

Total for this question: 16 marks

3 (a) Study **Figure 4**. **Figure 4** shows information about wildfires in southern Europe on 26 July 2009.

**Figure 4**





3 (b) Study **Figure 5**. **Figure 5** shows information about wildfires in Spain in July 2009.

**Figure 5**

**Wildfires in Spain, July 2009**

When flames reached buildings on the outskirts of the town of Mojacar, 160 km to the south of Alicante, police ordered all 5000 people to be evacuated. They were taken to a nearby beach. The wildfires caused problems all along the coast and five firemen were killed. The emergency services were unable to deal with all of the wildfires. More wildfires started north of Alicante where more than 200 hectares of pines and olive trees burned out of control. There were also wildfires in Guadalajara province where a high-speed rail service from Madrid to Zaragoza was cancelled, affecting 3700 travellers.

Describe the effects of a wildfire on people **and** the environment.

Use **Figure 5** and your own knowledge.

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**3 (c)** Suggest how education can help to reduce the damage caused by wildfires.

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<b>16</b>

**End of Section A**

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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.

**4**

**Total for this question: 18 marks**

**4 (a)** Study **Figure 6**, on the insert. **Figure 6** shows some areas of the world at risk from desertification.

**4 (a) (i)** Describe the distribution of areas of the world with a very high risk of desertification.

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*(2 marks)*

**4 (a) (ii)** Explain why a hot desert was formed in the area shown as **X** on **Figure 6**. Use **Figure 6** and your own knowledge.

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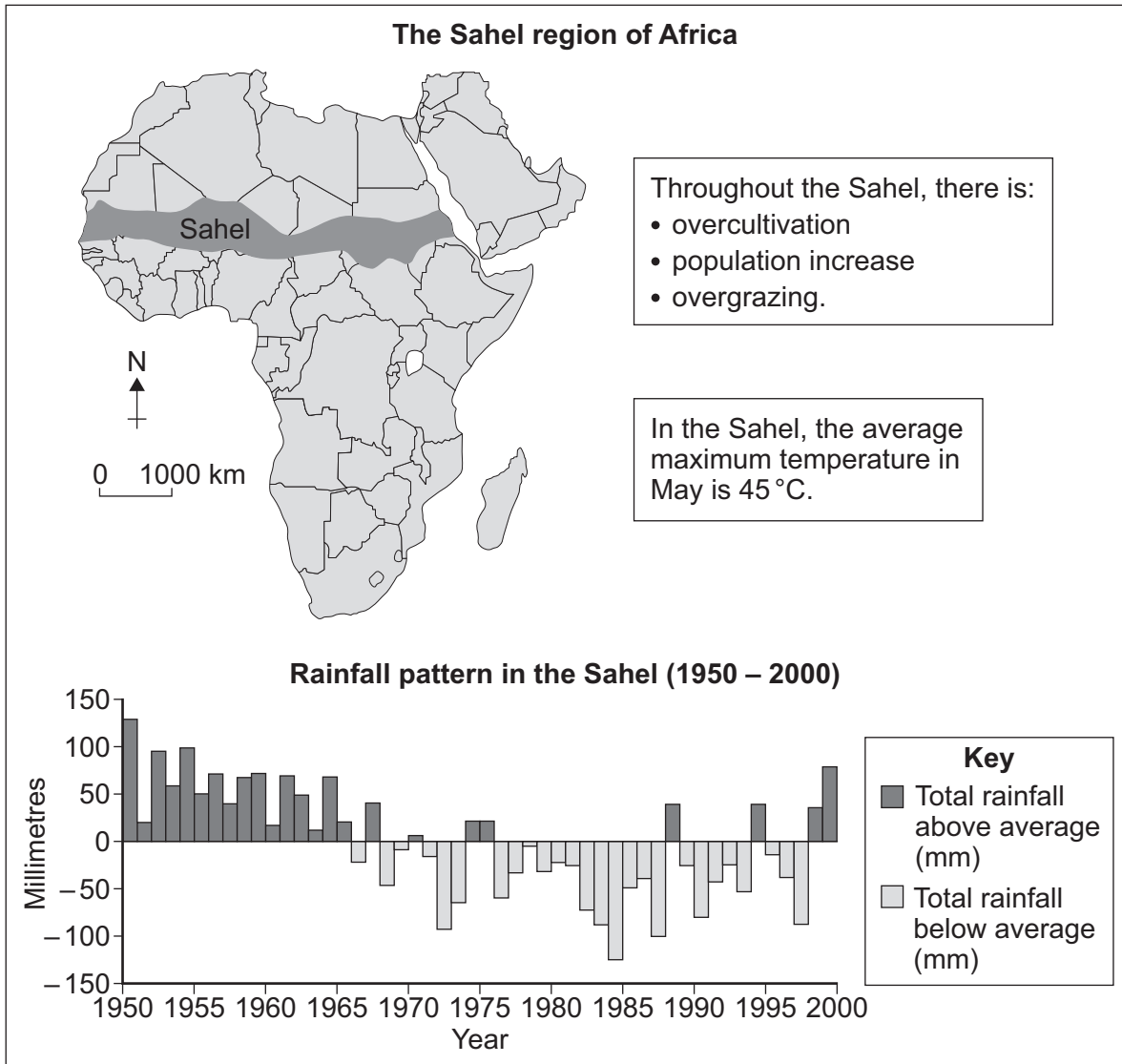
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4 (b) Study Figure 7. Figure 7 shows information about the Sahel region of Africa.

Figure 7



4 (b) (i) Describe the rainfall pattern in the Sahel, as shown in Figure 7.

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(2 marks)





**4 (b) (ii)** Explain how **either** natural factors **or** human factors cause desertification. Use evidence from **Figure 7** and your own knowledge.

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**4 (c)** Describe ways in which appropriate technology can help to reduce the risk of desertification.

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(4 marks)

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<b>18</b>

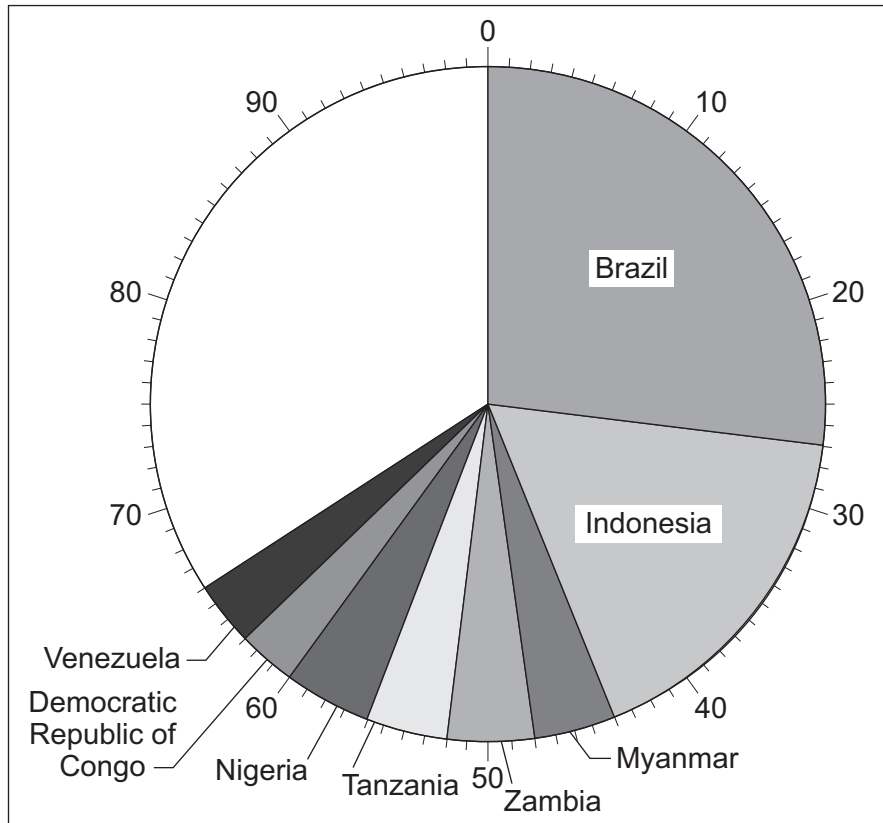


5

Total for this question: 14 marks

5 (a) Study **Figure 8**. **Figure 8** shows the share of world deforestation in countries with tropical rainforests (2000 to 2010).

**Figure 8**



Complete **Figure 8**.  
Use the information below.

**Zimbabwe = 3%**  
**Other countries = 31%**

(2 marks)

Question 5 continues on the next page

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5 (b) Study **Figure 9**. **Figure 9** shows information about the Democratic Republic of Congo.

**Figure 9**

Gross National Income (US \$ per person per year)	110
Population involved in subsistence farming (%)	70
Population growth rate (% per year)	2.6
Value of timber and wood exports (US \$ million per year)	1155
New roads built since 1976 for removing timber (km)	52 000

The rate of deforestation in the Democratic Republic of Congo has increased. With the help of **Figure 9**, suggest reasons for this increase.

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5 (c) Study **Figure 10**, on the insert. **Figure 10** shows a management scheme in an area of tropical rainforest.

Do you think that the scheme in **Figure 10** is a good way of managing a tropical rainforest environment?

Give reasons for your decision.

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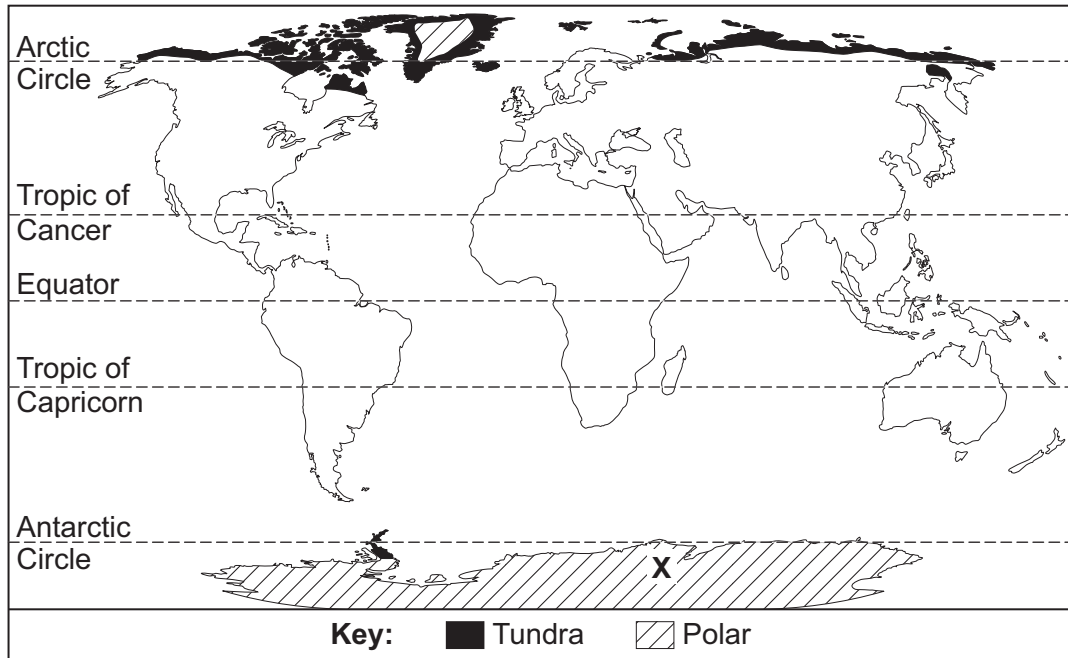


6

Total for this question: 18 marks

6 (a) Study Figure 11. Figure 11 shows a map of cold environments.

Figure 11



6 (a) (i) Complete the sentences below.  
Circle the correct answer in **each** set of brackets.

Cold environments are found in the [ **low** / middle / high ] latitudes, above the Arctic Circle and below the Antarctic Circle. The largest area of land with a polar climate is found in the [ **southern** / northern / western ] hemisphere and areas of tundra are found at the [ **margins** / centre / south ] of land masses.

(3 marks)



**6 (a) (ii)** Explain why the place shown as **X** on **Figure 11** has a cold environment.

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**6 (b)** Study **Figure 12**. **Figure 12** shows the number of visitors to Antarctica between 1980 and 2010.

Figure 12 (a graph showing the number of visitors to Antarctica from 1980 to 2010) has been removed due to third-party copyright constraints.

Describe the changes to the number of visitors to Antarctica.

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*(3 marks)*

**6 (c)** Give **two** problems that visitors may cause in a cold environment.

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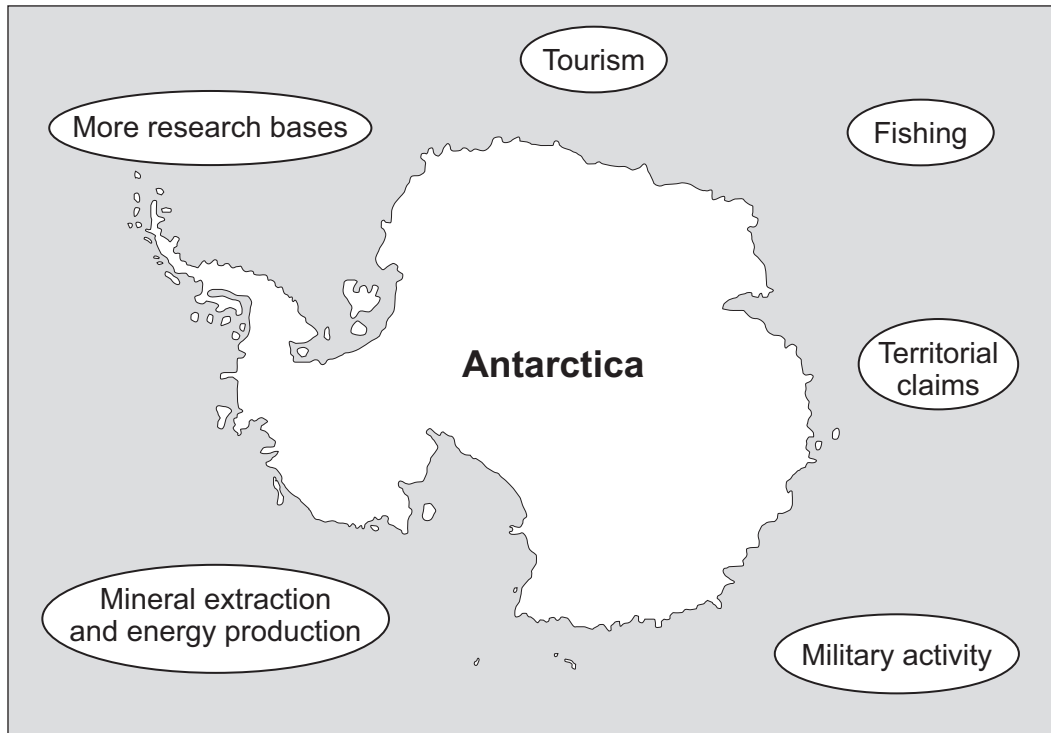
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6 (d) Study **Figure 13**. **Figure 13** identifies some issues in Antarctica.

**Figure 13**



Describe how international agreements help to protect cold environments.  
Use **Figure 13** and your own knowledge.

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<b>18</b>

**END OF QUESTIONS**



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