

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
5	
6	
TOTAL	



General Certificate of Secondary Education  
Higher Tier  
June 2010

# Geography (Specification B)

40352H

H

Paper 2: Hostile World

Thursday 17 June 2010 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 **or** Section B.
- 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.



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**Section A – Living with Natural Hazards**

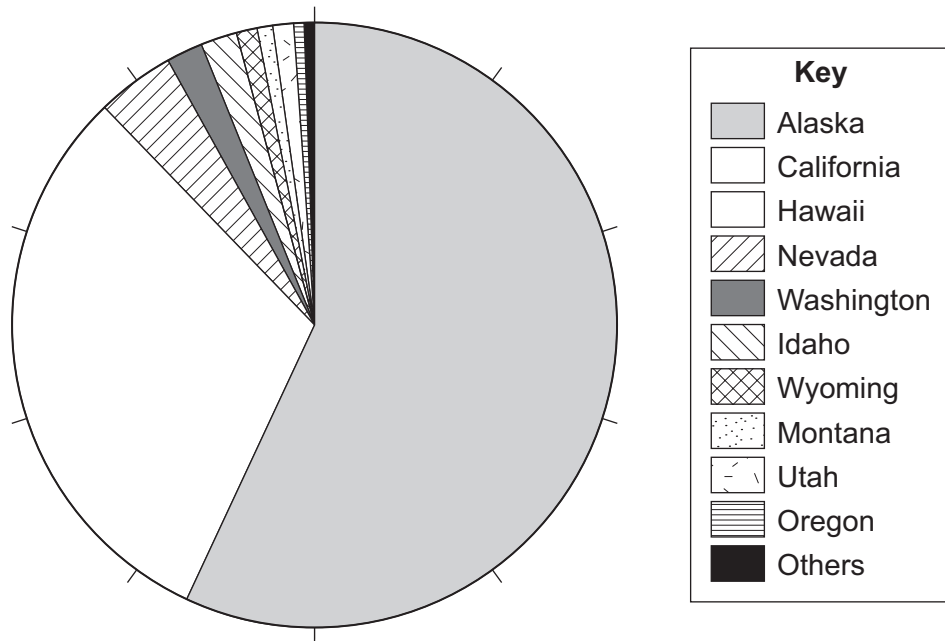
Answer **either** Section A **or** Section B.

Use your case studies to support your answers where appropriate.

**Total for this question: 19 marks**

**1 (a)** Study **Figure 1**. **Figure 1** shows the percentages of earthquakes that occurred in states of the USA (1974–2008).

**Figure 1**



**1 (a) (i)** Complete the pie chart and key in **Figure 1**. Use the information below.

**California = 24%**

**Hawaii = 7%**

*(2 marks)*

**1 (a) (ii)** What percentage of the earthquakes occurred in Alaska?

..... %

*(1 mark)*



**1 (b)** Study **Figure 2**, on the insert, which shows information about earthquakes and volcanic eruptions in Alaska, USA.

**1 (b) (i)** Describe the distribution of earthquakes and volcanoes shown in **Figure 2**.

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*(2 marks)*

**1 (b) (ii)** Suggest why 'many flights were cancelled' at airports in the USA, Canada and Asia.

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*(3 marks)*

**Question 1 continues on the next page**

**Turn over ►**



1 (b) (iii) Explain why earthquakes **and** volcanic eruptions occur in Alaska.

Use **Figure 2** and your own knowledge.

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**1 (c)** Describe ways in which the damaging effects of **either** earthquakes **or** volcanic eruptions may be reduced.

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**Turn over for the next question**

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**Total for this question: 19 marks**

**2 (a)** Study **Figure 3**, on the insert. **Figure 3** shows the path of a tropical storm.

With the help of **Figure 3**, describe the stages of the life cycle of a tropical storm.

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*(3 marks)*



**Question 2 continues on the next page**

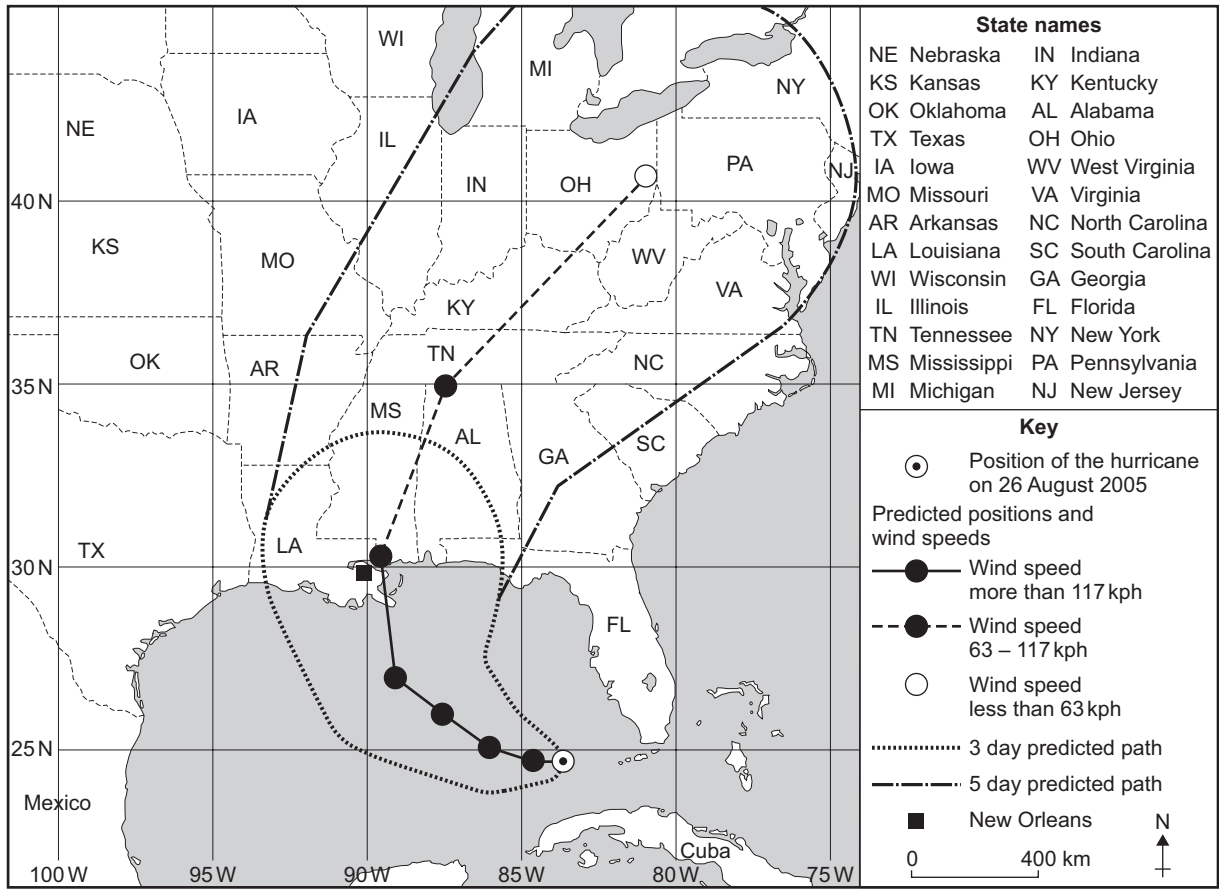
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2 (b) Study Figure 4, a map to show the predicted path of a tropical storm (Hurricane Katrina) in 2005.

Figure 4



2 (b) (i) Describe the changes to the predicted path and to the strength of Hurricane Katrina between Friday 26 August 2005 and Wednesday 31 August 2005.

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(3 marks)





**2 (b) (ii)** Do you think that the people living in Texas (TX) should evacuate their homes?

Give a reason(s) for your answer.

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(3 marks)

**2 (c)** Study **Figure 5**, some methods of preparing for a tropical storm.

**Figure 5**

- Listen to the radio
- Protect your home
- Have a family action plan
- Get an emergency kit

Suggest how **one** of these methods helps people to prepare for a tropical storm.

Chosen method .....

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(2 marks)

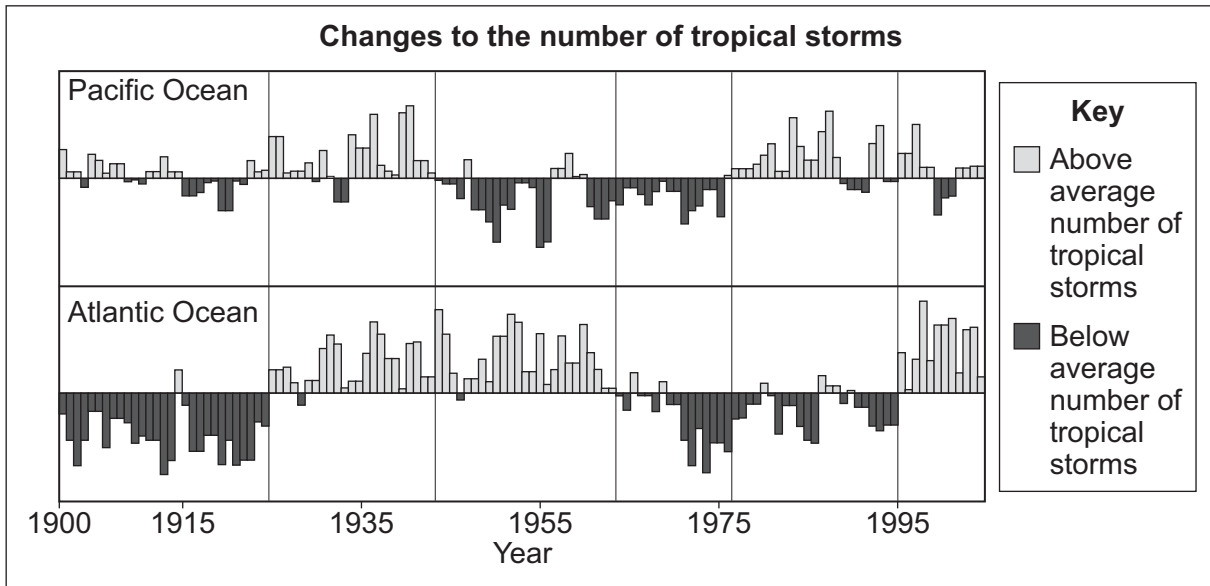
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2 (d) Study Figure 6. Figure 6 shows information about changes to the number of tropical storms.

Figure 6



### The views of two scientists

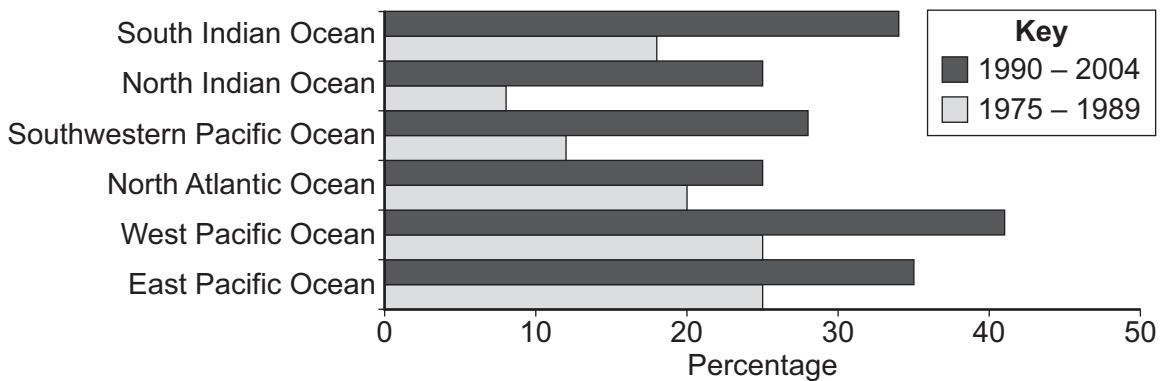


Computer models predict that in 70 years' time, there will be fewer tropical storms.



Records of tropical storms before 1900 are unreliable.

### Changes in the percentages of severe tropical storms, 1975 – 1989 and 1990 – 2004





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19



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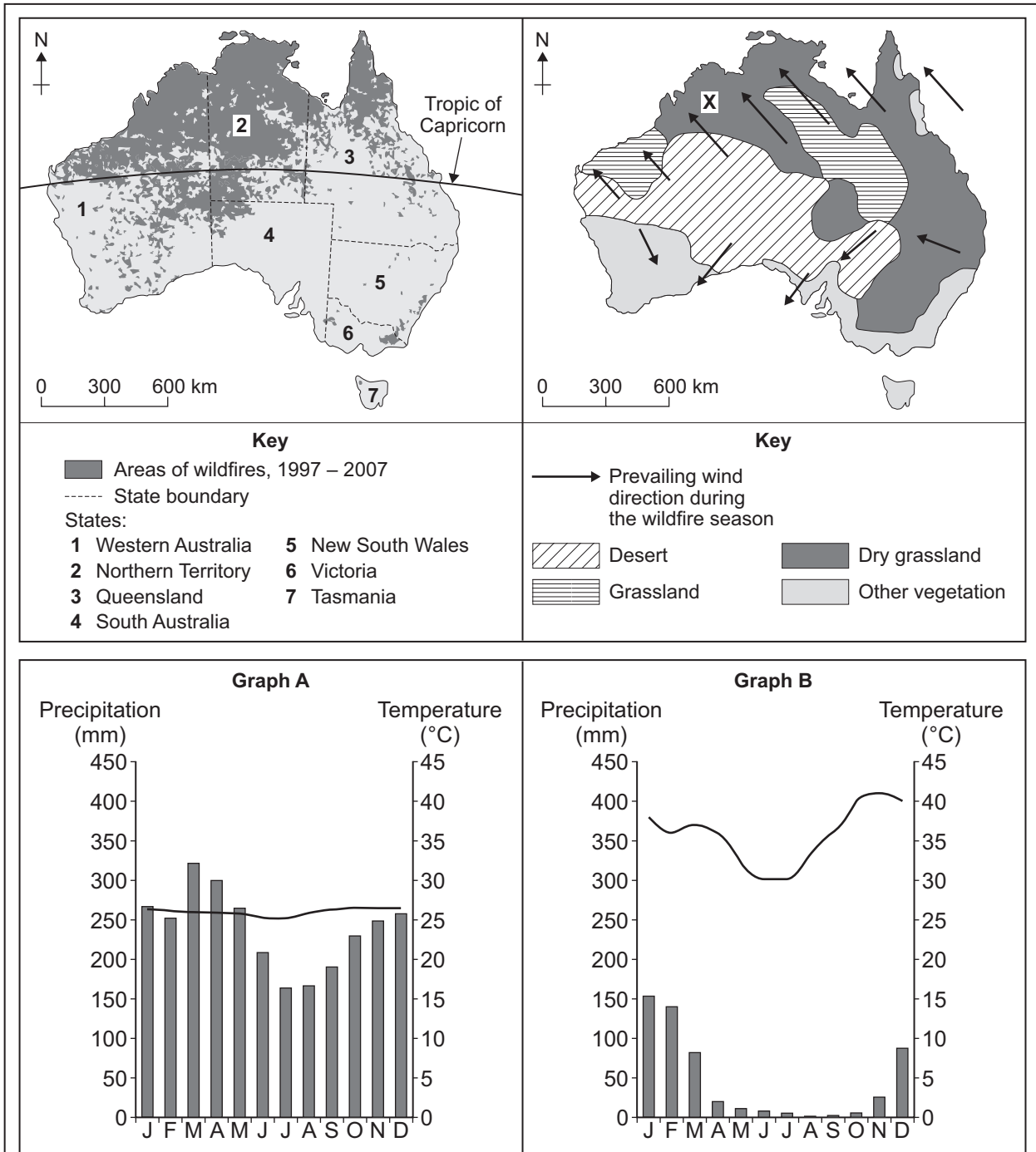
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Total for this question: 12 marks

3 (a) Study Figure 7, information about wildfires, vegetation and climate in Australia.

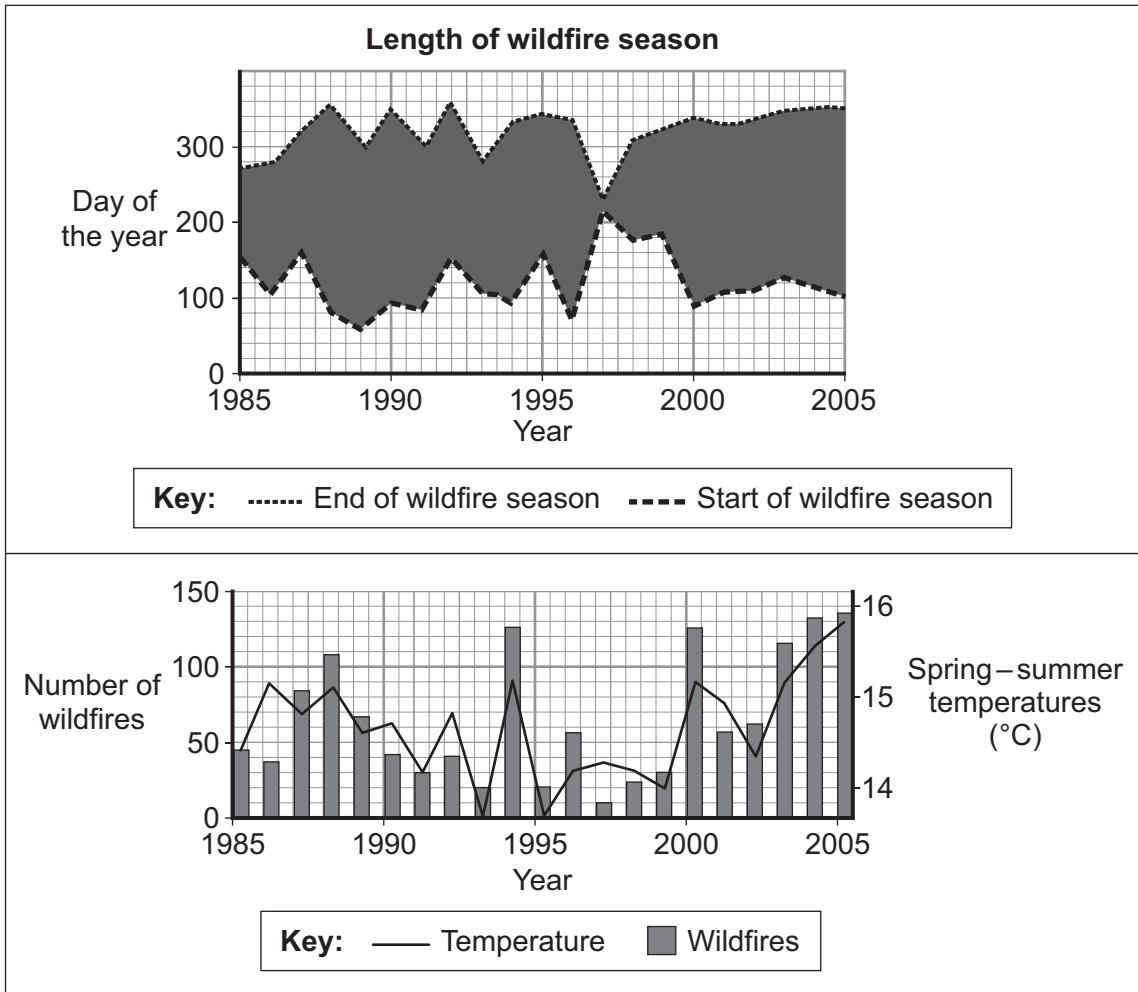
Figure 7





3 (b) Study **Figure 8**, information about wildfires in western USA.

**Figure 8**



3 (b) (i) Use **Figure 8** to give **one** change to:

the length of the wildfire season

.....

.....

the number of wildfires.

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(2 marks)





**3 (b) (ii)** Suggest the connection between spring – summer temperatures and the number of wildfires.

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(1 mark)

**3 (c)** The cost of damage from wildfires is increasing.

Give **two** reasons why.

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(2 marks)

12
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**End of Section A**

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## Section B – The Challenge of Extreme Environments

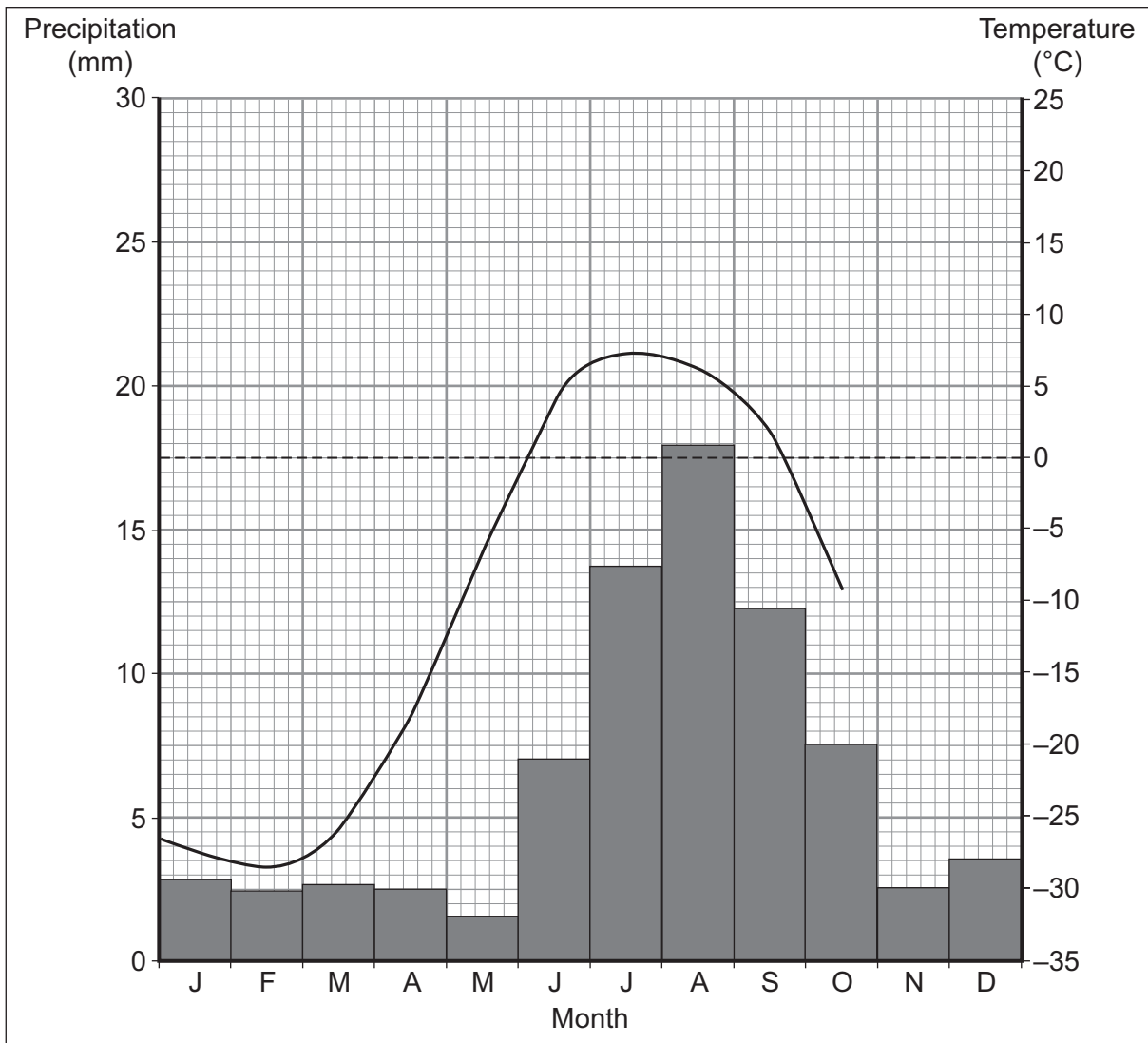
Answer **either** Section A **or** Section B.

Use your case studies to support your answers where appropriate.

**Total for this question: 19 marks**

**4 (a)** Study **Figure 9**, a climate graph for Prudhoe Bay in Alaska.

**Figure 9**



4 (a) (i) Complete **Figure 9**. Use the information below.

**November average temperature =  $-20^{\circ}\text{C}$**

**December average temperature =  $-25^{\circ}\text{C}$**

(1 mark)

4 (a) (ii) What was the average precipitation in April?

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(1 mark)

4 (a) (iii) Suggest why temperatures are below  $0^{\circ}\text{C}$  for eight months of the year at Prudhoe Bay in Alaska.

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(2 marks)

Question 4 continues on the next page

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**4 (b)** Study **Figure 10**, on the insert. **Figure 10** shows information about Alaska.

**4 (b) (i)** Describe the effects of the oil industry on the people and the environment of Alaska.

Use **Figure 10** and your own knowledge.

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**4 (b) (ii)** Study **Figure 11** on the insert.

Describe **two** threats to the environment of Antarctica.

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*(4 marks)*

**Question 4 continues on the next page**

**Turn over ►**



**4 (c)** People can have damaging effects on cold environments.

Describe strategies and methods used to reduce problems in cold environments.

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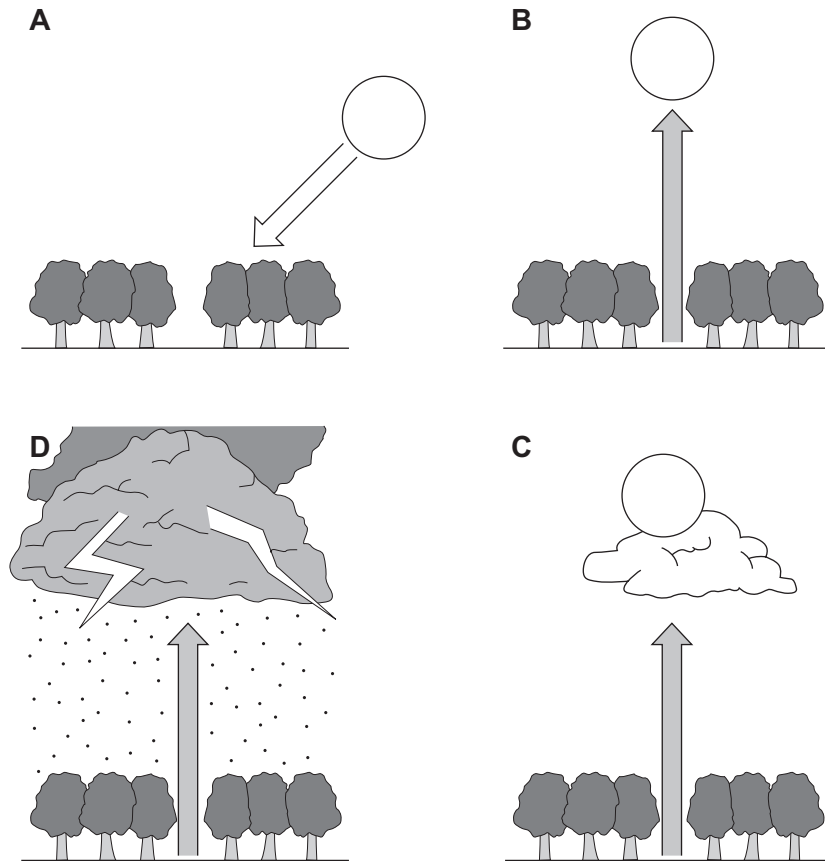
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Total for this question: 19 marks

5 (a) Study Figure 12. Figure 12 shows the daily pattern of weather in an area of tropical rainforest.

Figure 12



With the help of Figure 12, explain the daily pattern of weather in an area of tropical rainforest.

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(3 marks)

Question 5 continues on the next page

Turn over ►



**5 (b)** Study **Figure 13**, on the insert. **Figure 13** shows information about deforestation in Borneo, an island in South East Asia.

**5 (b) (i)** Describe the changes and the expected change to the amount of tropical rainforest shown in **Figure 13**.

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*(3 marks)*

**5 (b) (ii)** Deforestation has taken place on the steep slopes to the north of the area shown as **X** on **Figure 13**.

Suggest how this deforestation might affect area **X**.

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*(3 marks)*





**5 (c)** Study **Figure 14**, some methods of reducing problems in the tropical rainforest environment.

**Figure 14**

- Reforestation
- Conservation schemes
- Ecotourism
- Ethical shopping

Suggest how **one** of these methods might help to reduce problems in the tropical rainforest environment.

Chosen method .....

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(2 marks)

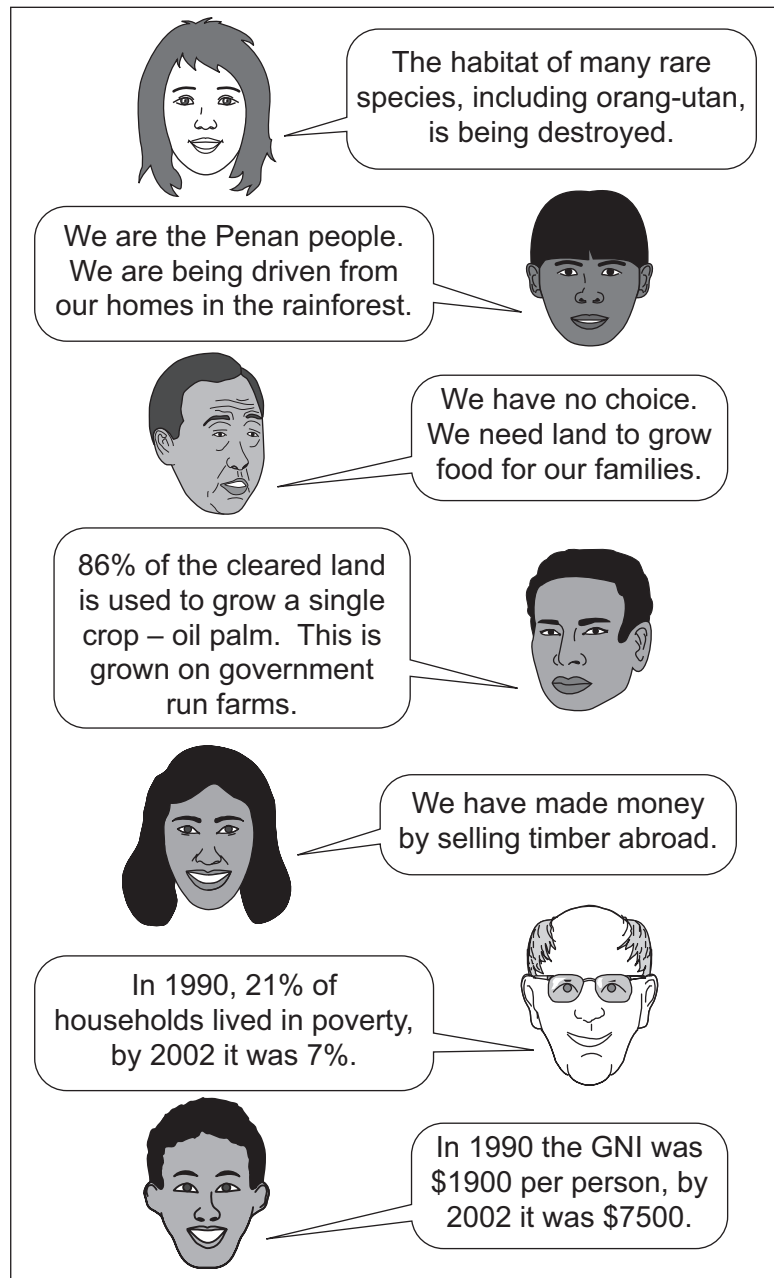
**Question 5 continues on the next page**

**Turn over ►**



- 5 (d) Study **Figure 15**. **Figure 15** shows information about deforestation and development in a region of Borneo.

**Figure 15**



'Tropical rainforest environments should be protected at any cost.'

Do you agree with this view? Tick the box of your choice.

Yes

No

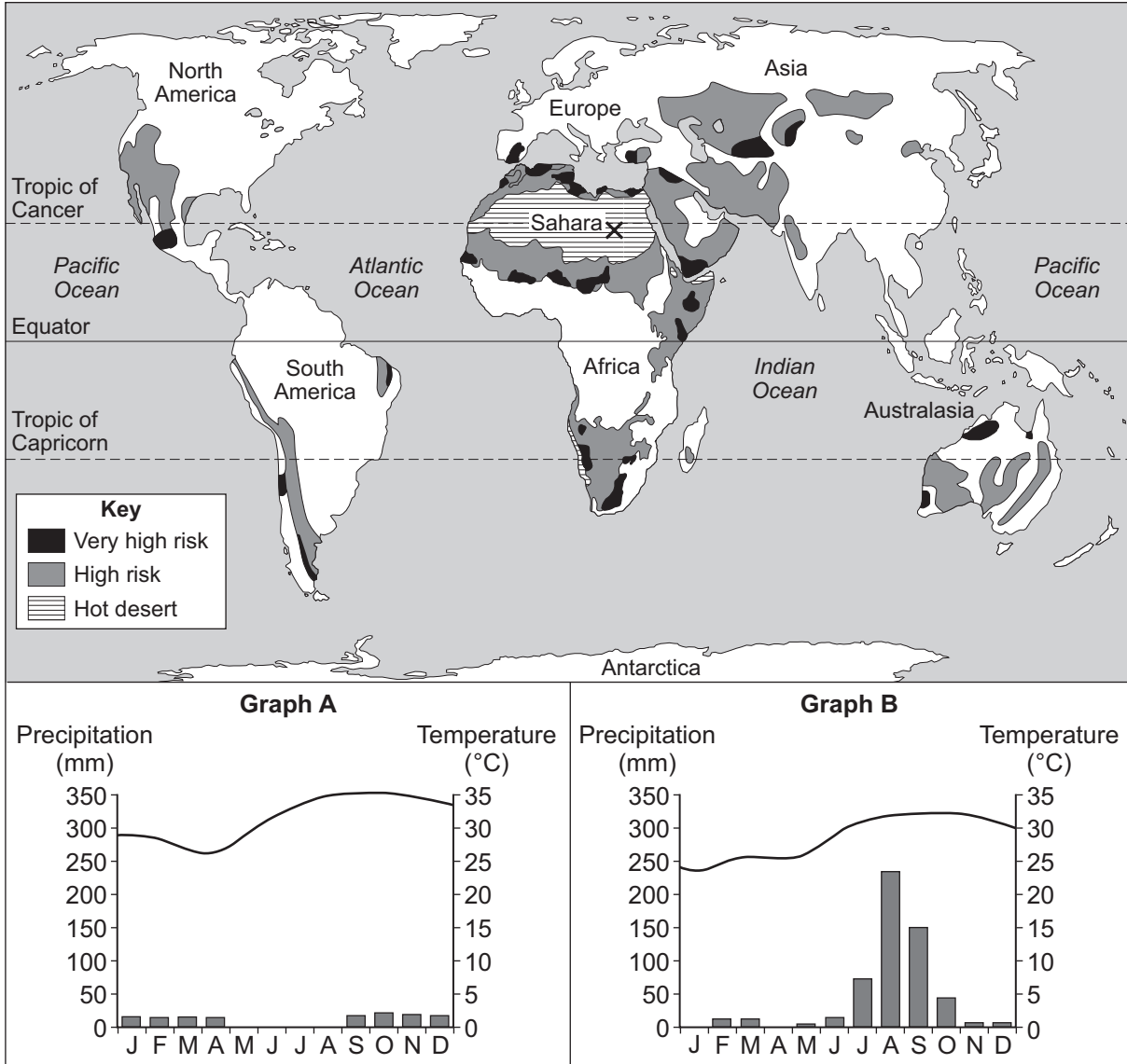




Total for this question: 12 marks

6 (a) Study Figure 16. Figure 16 shows some areas of the world at risk from desertification.

Figure 16



Which of the graphs in Figure 16 (A or B), shows the climate at the place shown as X?

.....  
(1 mark)



**6 (b)** Study **Figure 17**, on the insert. **Figure 17** shows information about desertification in Africa.

**6 (b) (i)** What percentage of dryland used for agriculture has been affected by desertification?

..... %

(1 mark)

**6 (b) (ii)** Suggest the connection between population density and desertification.

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(2 marks)

**Question 6 continues on the next page**

**Turn over ►**





**6 (c)** Give **two** changes in climate that may increase the risk of desertification.

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(2 marks)

12
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**END OF QUESTIONS**



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Figure 4: NOAA, National Weather Service, National Hurricane Centre, Katrina Graphics Archive.  
Figure 6: US Geological Survey. Department of the Interior/USGS. *Science* 2005, Changes in Tropical Cyclone Number, Duration and Intensity in a Warming Environment.  
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