

Centre Number						Candidate Number				
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Candidate Signature										

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



General Certificate of Secondary Education  
Foundation Tier  
June 2010

# Geography (Specification B)

40352F

F

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

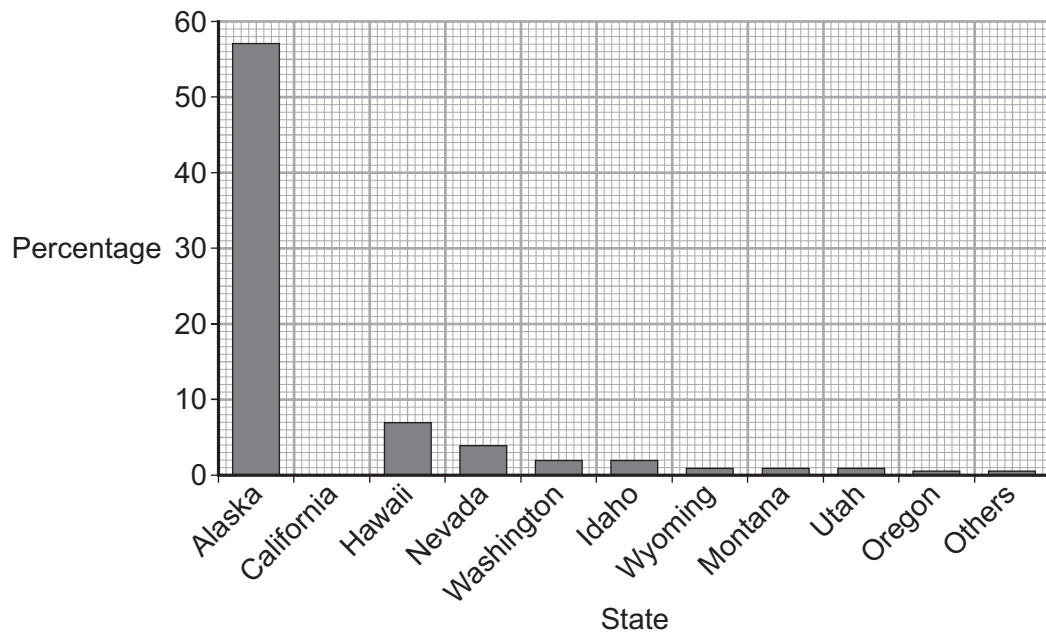
Answer **either** Section A **or** Section B.

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 percentage of earthquakes that occurred in states of the USA (1974–2008).

**Figure 1**



- 1 (a) (i)** Complete **Figure 1**. Use the information below.

**California = 24%**

(1 mark)

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

Circle the correct answer.

**5%**

**7%**

**15%**

(1 mark)



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

**1 (b) (i)** Using **Figure 2**, complete the paragraph below which describes the distribution of earthquakes and volcanoes in Alaska.

Choose the **three** correct words from the list below.

- |               |                  |                |
|---------------|------------------|----------------|
| <b>wide</b>   | <b>northwest</b> | <b>islands</b> |
| <b>narrow</b> | <b>southwest</b> | <b>lakes</b>   |

Many of the earthquakes and volcanoes are found on and around the  
 ..... in the ..... of Alaska. Most earthquakes and  
 volcanoes lie in a long ..... belt, running from Anchorage out into the  
 Bering Sea.

*(3 marks)*

**1 (b) (ii)** Using **Figure 2**, give **two** effects of the Alaskan volcanic eruptions.

- 1 .....
- .....
- 2 .....
- .....

*(2 marks)*

**Question 1 continues on the next page**

**Turn over ►**



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

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

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(5 marks)

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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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**1 (d)** People continue to live in areas at risk from earthquakes.

Which **two** of the following statements help to explain this?

Tick the **two** correct boxes.

People cannot afford to move away.

People will have plenty of time to evacuate if an earthquake strikes.

Many buildings are designed to absorb shockwaves.

People believe that their lives are in danger.

(2 marks)

19
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**Turn over for the next question**

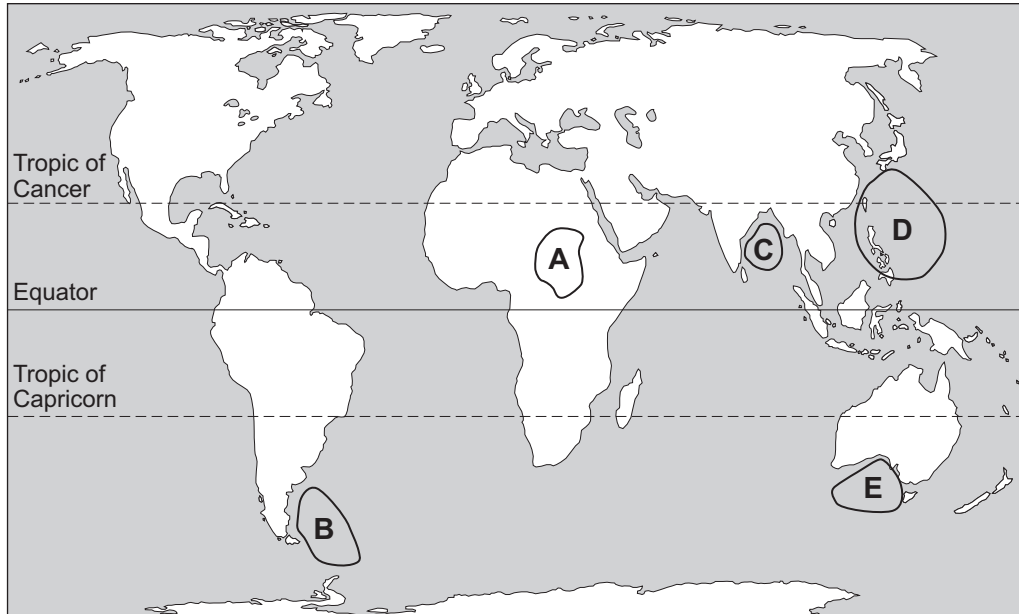
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Total for this question: 19 marks

2 (a) Study Figure 3.

Figure 3



In which **two** areas (**A**, **B**, **C**, **D** and **E**) are tropical storms common?

Tick the **two** correct boxes.

<b>A</b>	<input type="checkbox"/>
<b>B</b>	<input type="checkbox"/>
<b>C</b>	<input type="checkbox"/>
<b>D</b>	<input type="checkbox"/>
<b>E</b>	<input type="checkbox"/>

(2 marks)



**2 (b)** Study **Figure 4**, on the insert. **Figure 4** shows the path of a tropical storm.

The statements below show the life cycle of a tropical storm.

The letters **A**, **B**, **C** and **D** on **Figure 4** show four stages in that life cycle.

Write the correct letter next to **each** statement.

Statement	Letter
with sea surface temperatures over 27 °C, warm air rises and starts to spin	
thunderstorms begin to form	
when the tropical storm moves over land, it loses its source of energy and weakens	
when the tropical storm moves over the ocean, it picks up more warm moist air and it grows in size	

(3 marks)

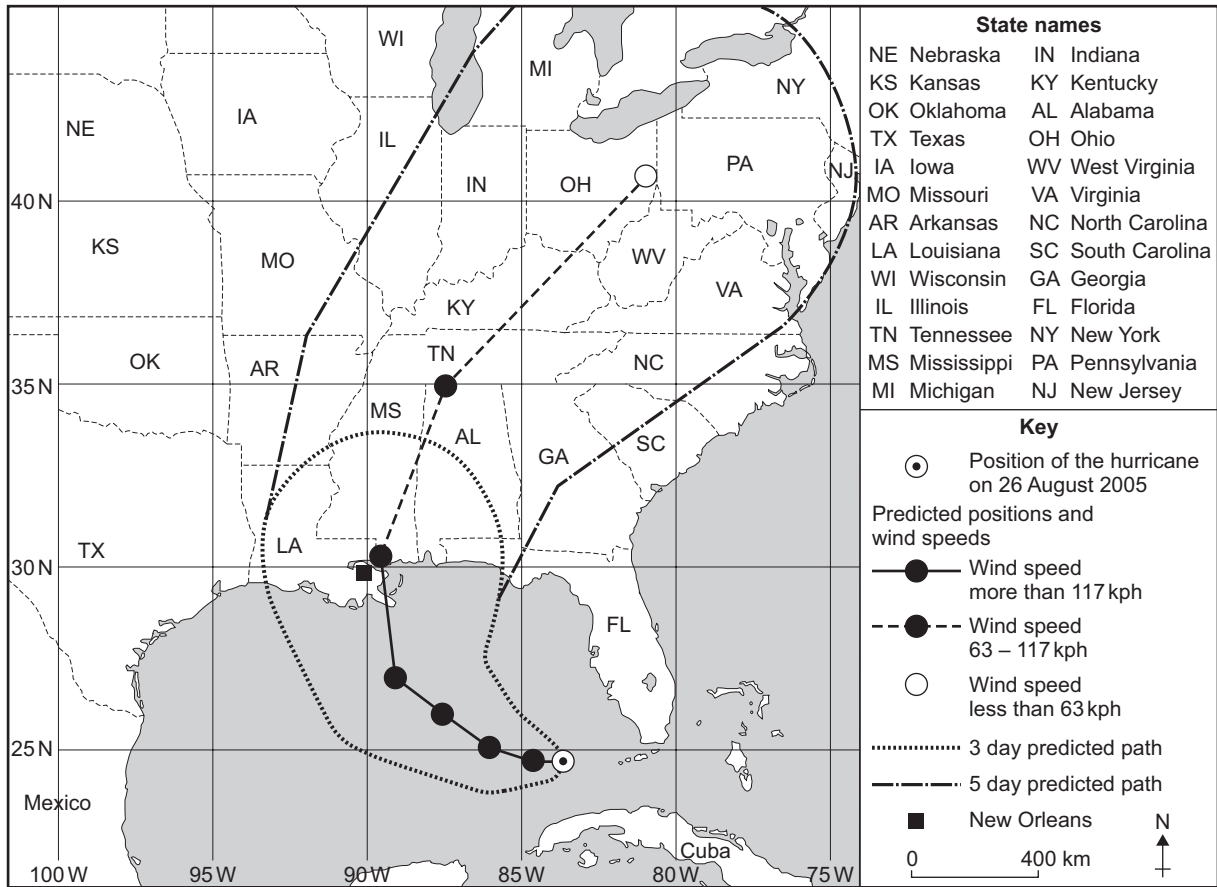
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- 2 (c) Study **Figure 5**, a map to show the predicted path of a tropical storm (Hurricane Katrina) in 2005.

**Figure 5**



- 2 (c) (i) Complete the sentences below.

Circle the correct answer in each set of brackets.

At 11 pm on 26 August 2005, the centre of Hurricane Katrina was to the

[ north / south / east ] of Cuba, at latitude [ 14 / 24 / 34 ] degrees north. The longitude was 83 degrees west. In the three days after 26 August, the centre of Hurricane Katrina could pass over [ Mississippi (MS) / Tennessee (TN) / Kansas (KS) ].

(3 marks)





2 (c) (ii) What is expected to happen to the wind strength when the tropical storm reaches Ohio (OH)?

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(1 mark)

2 (c) (iii) Do you think that the people living in Texas (TX) should evacuate their homes?

Give a reason(s) for your answer.

Yes

No

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(2 marks)

2 (d) Study Figure 6, some methods of preparing for a tropical storm.

Figure 6

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

Suggest how **two** of these methods help people prepare for a tropical storm.

Chosen method .....  
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Chosen method .....  
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(2 marks)

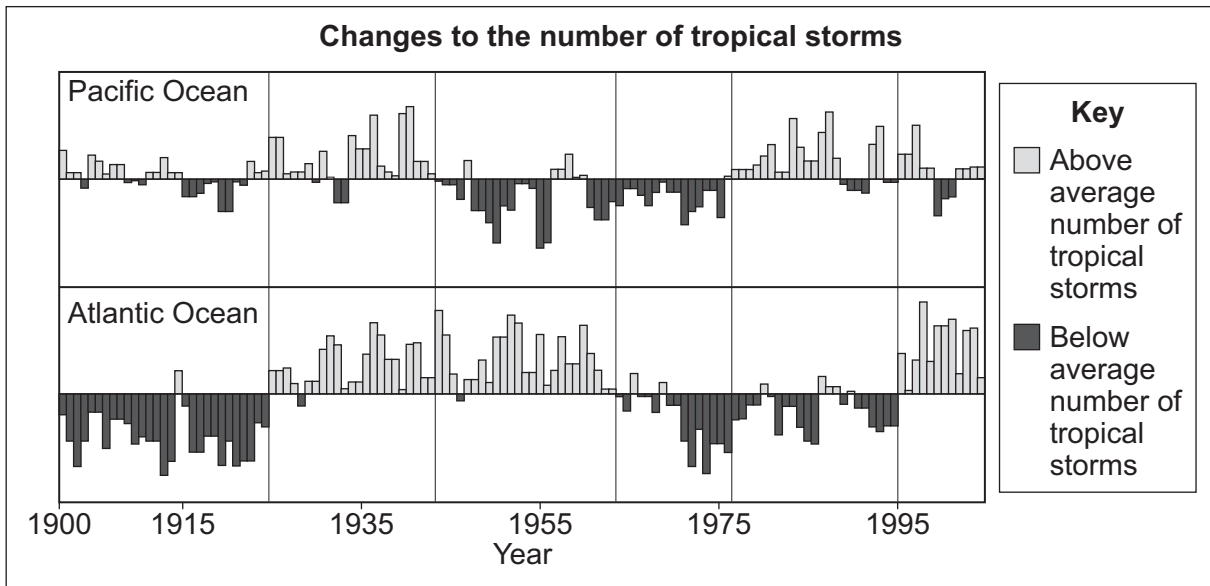
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2 (e) Study Figure 7. Figure 7 shows information about changes to the number of tropical storms.

Figure 7



### The views of two scientists

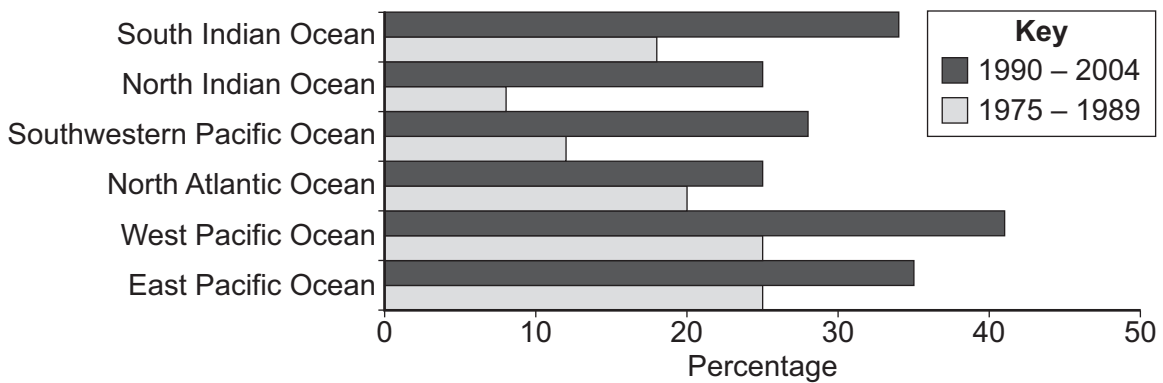


Computer models predict that in 70 years' time, there will be fewer tropical storms.



Records of tropical storms before 1900 are unreliable.

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



'The number of tropical storms will increase in the future. This is because of climate change.'

Do you agree with these views? Tick the box of your choice.

Yes

No

Give reasons for your decision.

Use **Figure 7** and your own knowledge.

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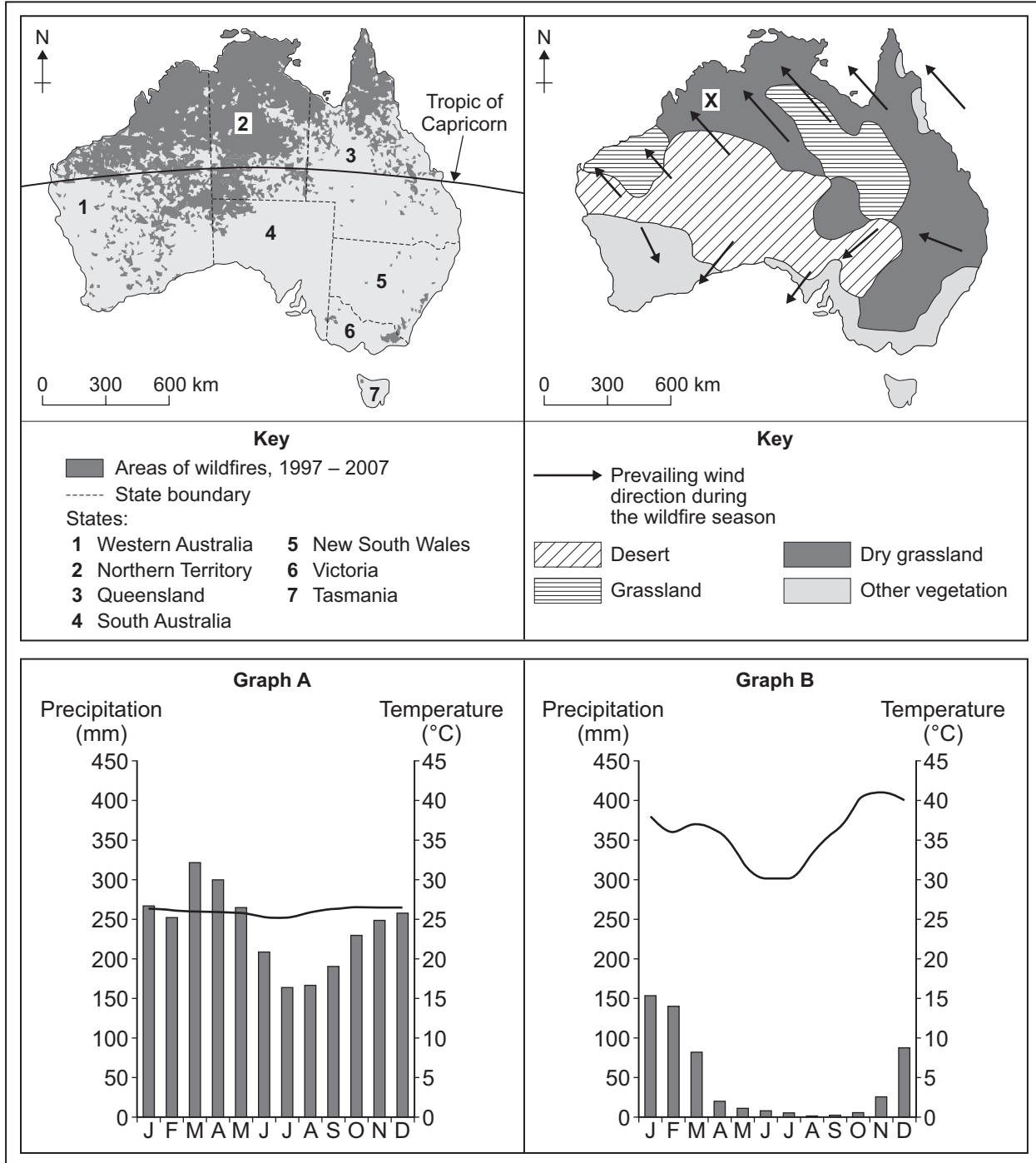
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Total for this question: 12 marks

3 (a) Study Figure 8, information about wildfires, vegetation and climate in Australia.

Figure 8



**3 (a) (i)** Study **Figure 8**.

Which of the graphs (**A** or **B**) shows the climate at the place marked **X** on the map?

Tick the correct box.

**Graph A**

**Graph B**

(1 mark)

**3 (a) (ii)** Which of the following is a state in Australia where wildfires are common?

Tick the correct box.

South Australia

Northern Territory

Tasmania

(1 mark)

**3 (a) (iii)** Use **Figure 8** to decide which **two** of the following statements are correct.

Tick the **two** correct boxes.

All areas of wildfires are above the Tropic of Capricorn.

Most wildfires occur in northern Australia.

Most wildfires occur in southern Australia.

Tasmania has few wildfires.

(2 marks)

**Question 3 continues on the next page**

**Turn over ►**



3 (a) (iv) With the help of **Figure 8**, suggest why place **X** is at risk from wildfires.

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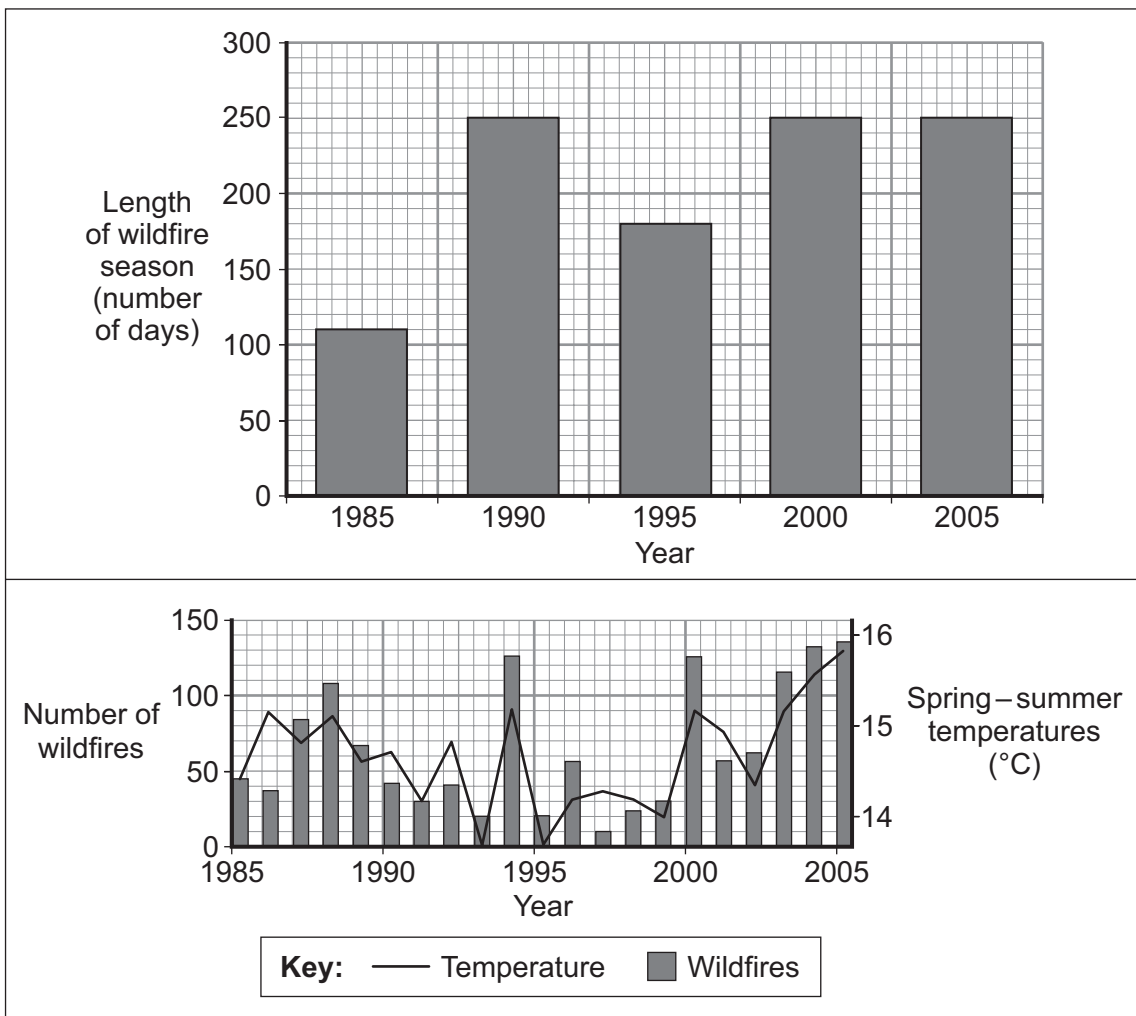
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(4 marks)

3 (b) Study **Figure 9**, information about wildfires in western USA.

**Figure 9**



3 (b) (i) What was the length of the wildfire season in 2005?

Circle the correct answer.

150 days

200 days

250 days

(1 mark)

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.

1 .....

2 .....

(2 marks)

12

End of Section A

Turn over ►



## Section B – The Challenge of Extreme Environments

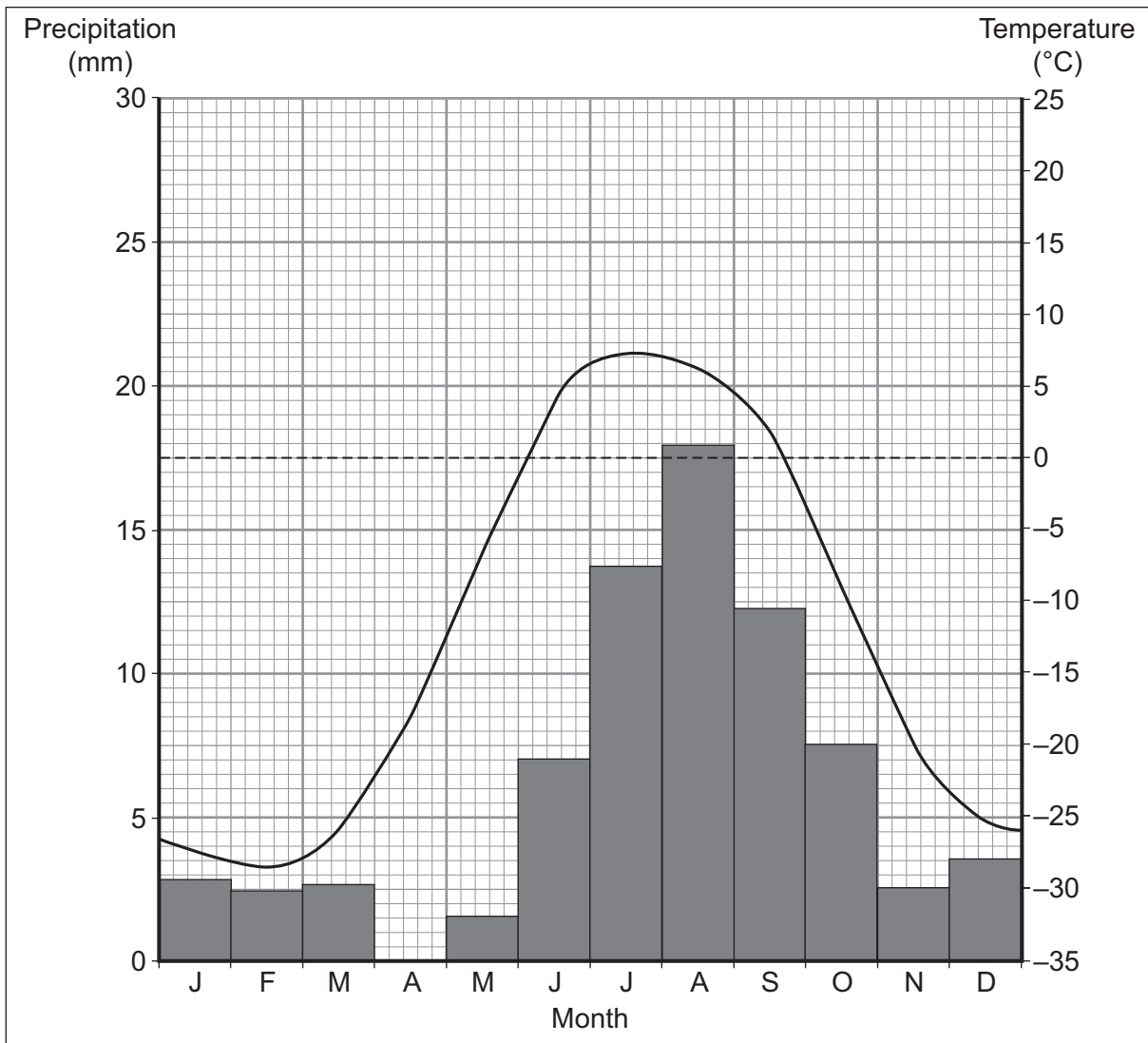
Answer **either** Section A **or** Section B.

Use your case studies to support your answers where appropriate.

**Total for this question: 19 marks**

**4 (a)** Study **Figure 10**, a climate graph for Prudhoe Bay in Alaska.

**Figure 10**





**4 (a) (i)** Complete **Figure 10**. Use the information below.

**April precipitation = 2.5 mm**

*(1 mark)*

**4 (a) (ii)** What was the average temperature in March?

Circle the correct answer.

**-26°C**

**0°C**

**6°C**

*(1 mark)*

**Question 4 continues on the next page**

**Turn over ►**



4 (b) Study **Figure 11**, on the insert, which shows information about Alaska.

4 (b) (i) The paragraph below gives information about the oil industry in Alaska.

Complete the paragraph by choosing the **three** correct words from the list.

tanker

Anchorage

south

pipeline

Prudhoe Bay

north

The main oil fields are in the area close to ..... . The oil is transported by ..... to Valdez, which lies 1242 kilometres to the .....

(3 marks)

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

Use **Figure 11** and your own knowledge.

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(5 marks)

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**4 (c)** Study **Figure 12** on the insert.

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

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2 .....

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(2 marks)

**4 (d)** Which **two** of the following statements are reasons why people should protect a cold environment such as Antarctica?

Tick the **two** correct boxes.

Very few people live in Antarctica.

Antarctica is valuable for scientific research.

Antarctica contains few species of land animals.

Antarctica is the last great wilderness left on earth.

(2 marks)

**Question 4 continues on the next page**

**Turn over ►**



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

Describe ways in which the damaging effects may be reduced.

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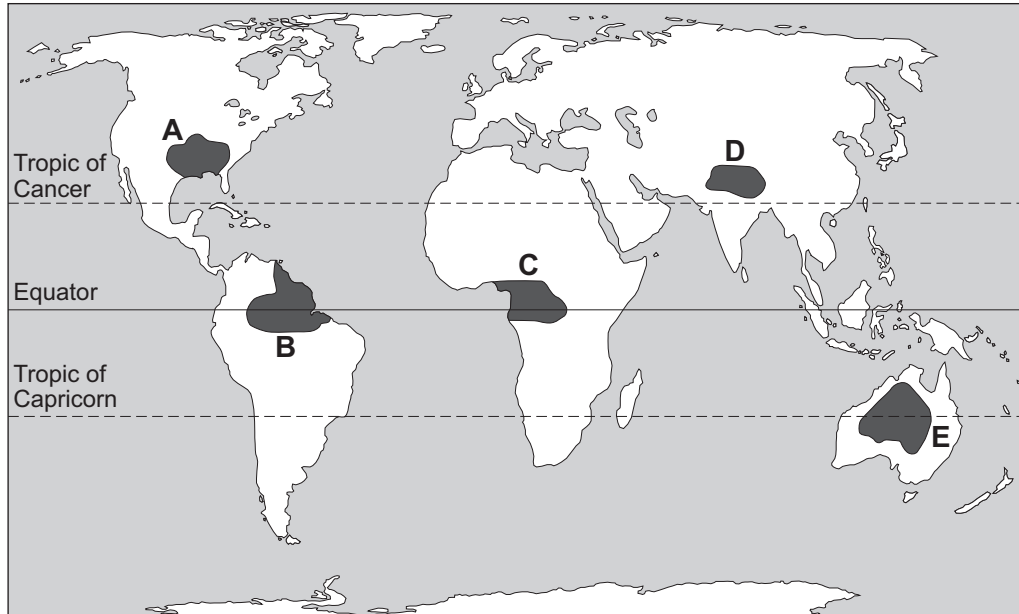
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Total for this question: 19 marks

5 (a) Study Figure 13.

Figure 13



In which **two** areas (**A**, **B**, **C**, **D** and **E**) are tropical rainforests found?

Tick the **two** correct boxes.

<b>A</b>	<input type="checkbox"/>
<b>B</b>	<input type="checkbox"/>
<b>C</b>	<input type="checkbox"/>
<b>D</b>	<input type="checkbox"/>
<b>E</b>	<input type="checkbox"/>

(2 marks)

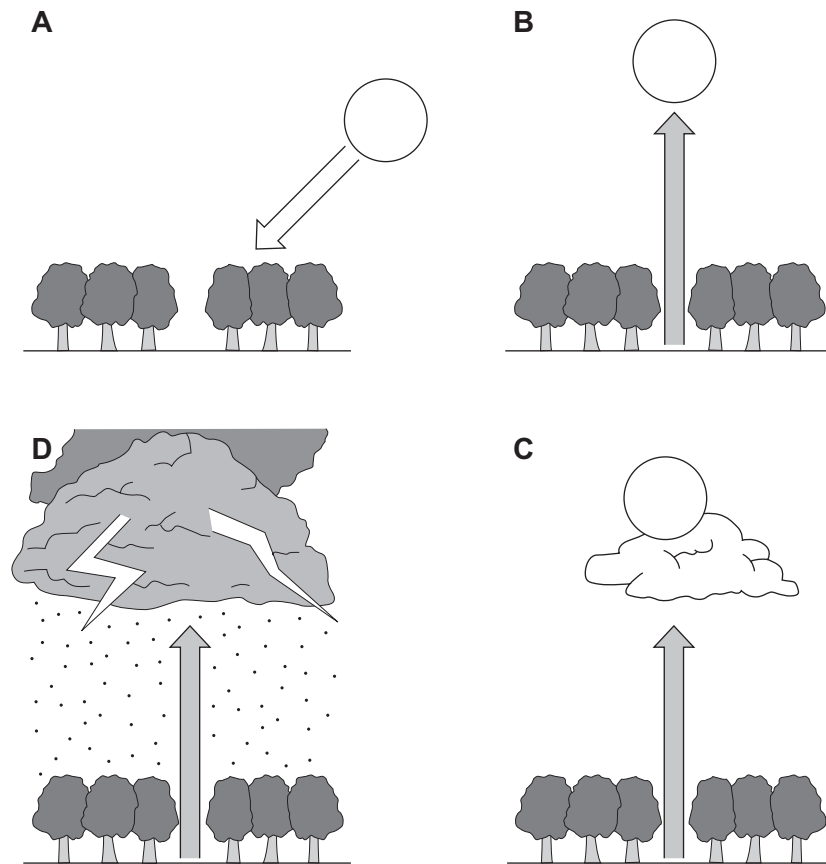
Question 5 continues on the next page

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- 5 (b) Study **Figure 14** which shows the daily pattern of weather in an area of tropical rainforest.

**Figure 14**



The statements below show the daily pattern of weather in an area of tropical rainforest.

Write the correct letter (**A**, **B**, **C** or **D**) next to **each** statement.

Statement	Letter
Towering black clouds form. Thunderstorms bring heavy rainfall.	
At 9 am, temperatures are as high as 25°C. The air near the ground heats up.	
More and more hot air rises and cools. It condenses and forms thick cloud.	
The sun is directly overhead and temperatures are over 30°C. The hot air rises in convection currents.	

(3 marks)



**5 (c)** Study **Figure 15**, on the insert, information about deforestation in Borneo, an island in south east Asia.

**5 (c) (i)** Complete the sentences below.

Circle the correct answer in each set of brackets.

In 1950 [ **all** / **none** / **most** ] of Borneo was covered with tropical rainforest.

By 1985 most of the [ **north coast** / **east coast** / **central region** ] had been deforested.  
(2 marks)

**5 (c) (ii)** What percentage of Borneo had been deforested by 2005?

..... %

(1 mark)

**5 (c) (iii)** What is expected to happen to the amount of tropical rainforest in Borneo by 2020?

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(1 mark)

**5 (c) (iv)** Deforestation has taken place on the steep slopes to the north of the area shown as **X** on **Figure 15**.

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

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(2 marks)

**Question 5 continues on the next page**

**Turn over ►**



**5 (d)** Study **Figure 16**, some methods of reducing problems in the tropical rainforest environment.

**Figure 16**

- Reforestation
- Conservation schemes
- Ecotourism
- Ethical shopping

Choose **two** of the methods shown in **Figure 16**.

For each method, suggest **one** way it might help to reduce problems in the tropical rainforest environment.

Chosen method .....

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Chosen method .....

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*(2 marks)*





**Question 5 continues on the next page**

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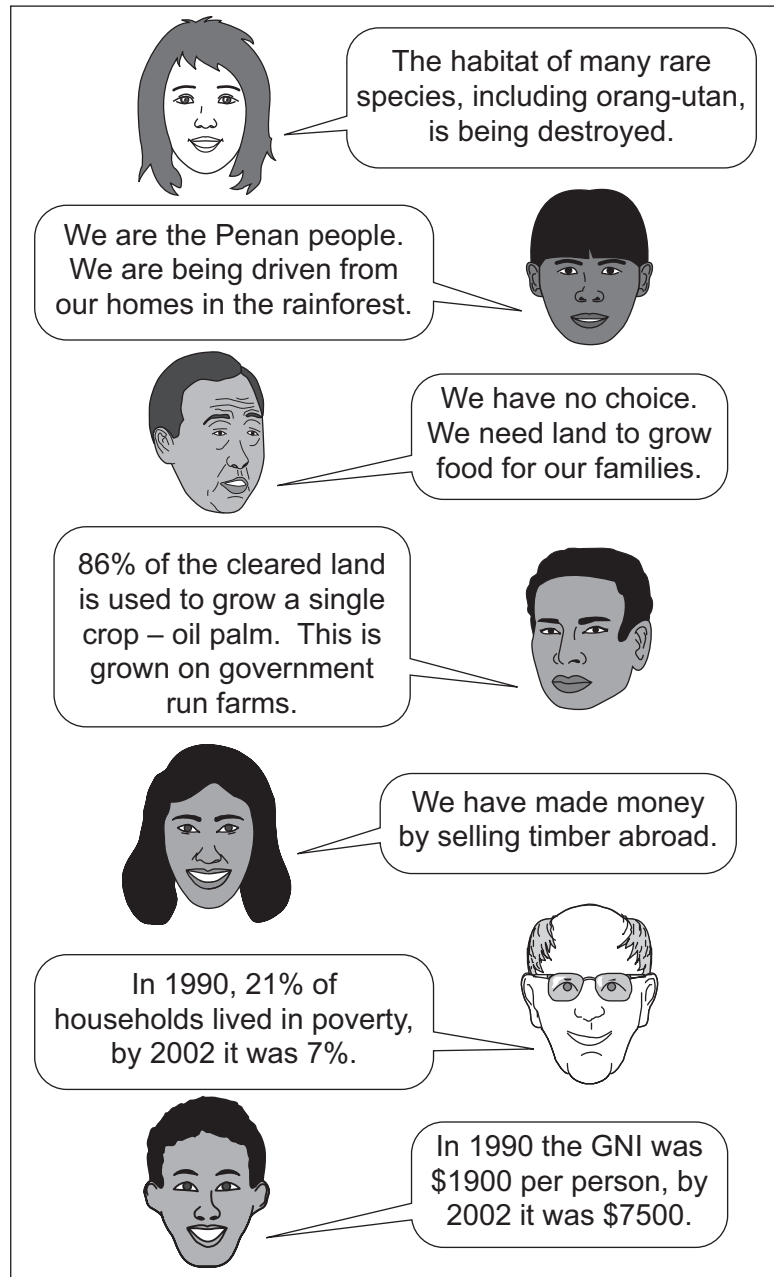
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2 5

- 5 (e) Study **Figure 17** which shows information about deforestation and development in a region of Borneo.

**Figure 17**



‘Tropical rainforest environments should be protected at any cost.’

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

Yes

No

Give reasons for your decision.

Use **Figure 17** and your own knowledge.

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(6 marks)

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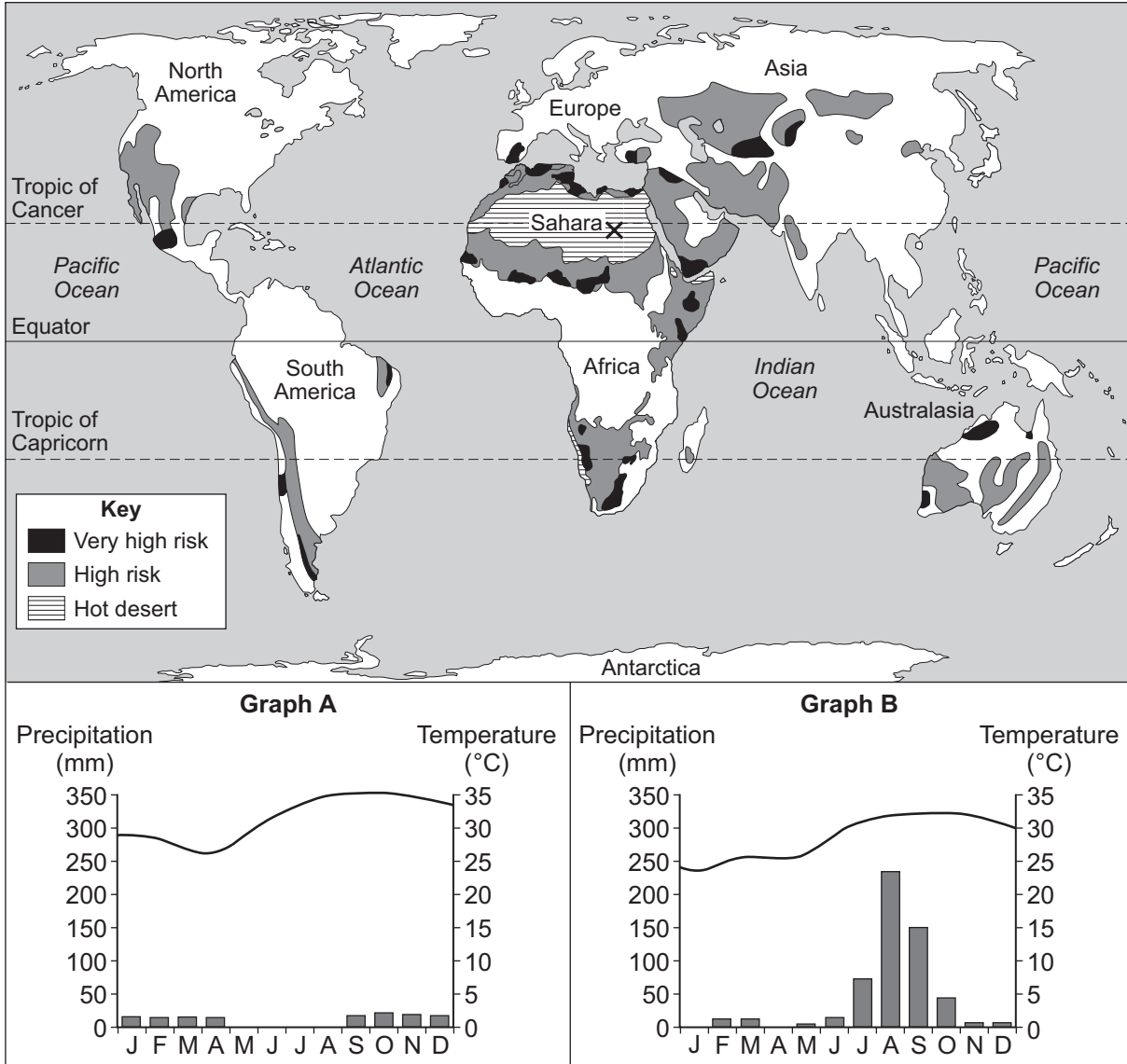
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Total for this question: 12 marks

6 (a) Study Figure 18 which shows some areas of the world at risk from desertification.

Figure 18



**6 (a) (i)** Which of the graphs in **Figure 18 (A or B)** shows the climate at the place shown as **X**?

Tick the correct box.

**Graph A**

**Graph B**

(1 mark)

**6 (a) (ii)** Which continent has the greatest area with a very high risk of desertification?

.....  
(1 mark)

**6 (a) (iii)** Use **Figure 18** to decide which **two** of the following statements are correct.

Tick the **two** correct boxes.

There are no areas in Europe with a very high risk of desertification.

Many areas with a very high risk of desertification are between the Tropics.

There are no areas in South America with a high risk of desertification.

Many areas on the fringe of the Sahara desert have a very high risk of desertification.

(2 marks)

**Question 6 continues on the next page**

**Turn over ►**



6 (b) Study **Figure 19**, on the insert, which shows information about desertification in Africa.

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

Circle the correct answer.

73%

75%

80%

(1 mark)

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

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(1 mark)

6 (b) (iii) Many places in Africa have a very high risk of desertification.

Suggest **two** reasons why.

Use **Figure 19** to help you.

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(4 marks)

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

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2 .....

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(2 marks)

END OF QUESTIONS

12



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