



Rewarding Learning

General Certificate of Secondary Education
2010

Geography

Paper 1
Foundation Tier

[G3601]

MONDAY 14 JUNE, MORNING

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71	
Candidate Number	
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G3601

TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.
Write your answers in the spaces provided in this question paper.
Answer all three questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 126, including a maximum of 6 marks for quality of written communication.
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.
A ruler is needed for use with Question 1.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
QWC	
Total Marks	

Theme A: Atmosphere and Human Impact

Examiner Only

Marks Remark

- 1 (a) Study **Fig. 1**, which gives information about one impact global warming may have. Answer the questions which follow.

Too late to save the rainforest from global warming



© iStockphoto

Global warming might kill the trees in the Amazon rainforest. A 2 °C rise in global temperatures may cause 30% of the Amazon rainforest to die by 2050. A 3 °C rise could see 70% of the rainforest destroyed.

© Adapted from "Amazon could shrink by 85% due to climate change, scientists say" by David Adams, *The Guardian*, 11 March 2009

Fig. 1

- (i) State the meaning of the term **global warming**.

[2]

(ii) Complete Fig. 2 to show rainforest loss due to global warming.

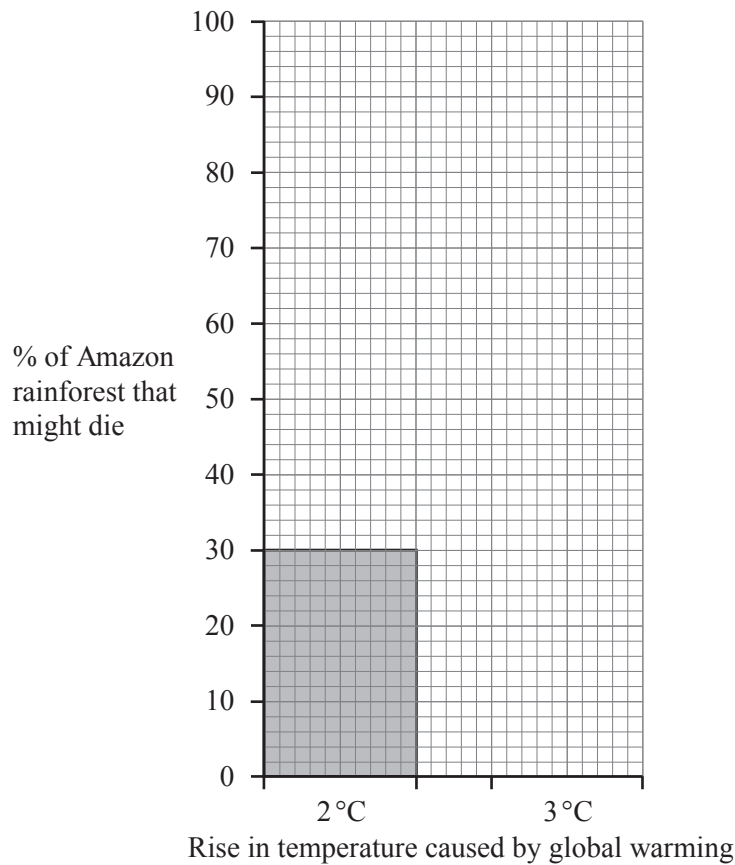


Fig. 2

[2]

(iii) Global warming will have many impacts. Sort the following statements as impacts on people or animals. One has been completed for you.

Impact on People

Impact on Animals

People in coastal areas might have to move.

Tropical insects can live further north than before.

Amazonian animals might die.

More people could die from heat stroke.

Shorter skiing season for tourists.

[4]

Examiner Only	
Marks	Remark

[Turn over

(iv) State **two** causes of global warming.

1. _____

 2. _____

- [4]

(v) State fully **one** solution to global warming.

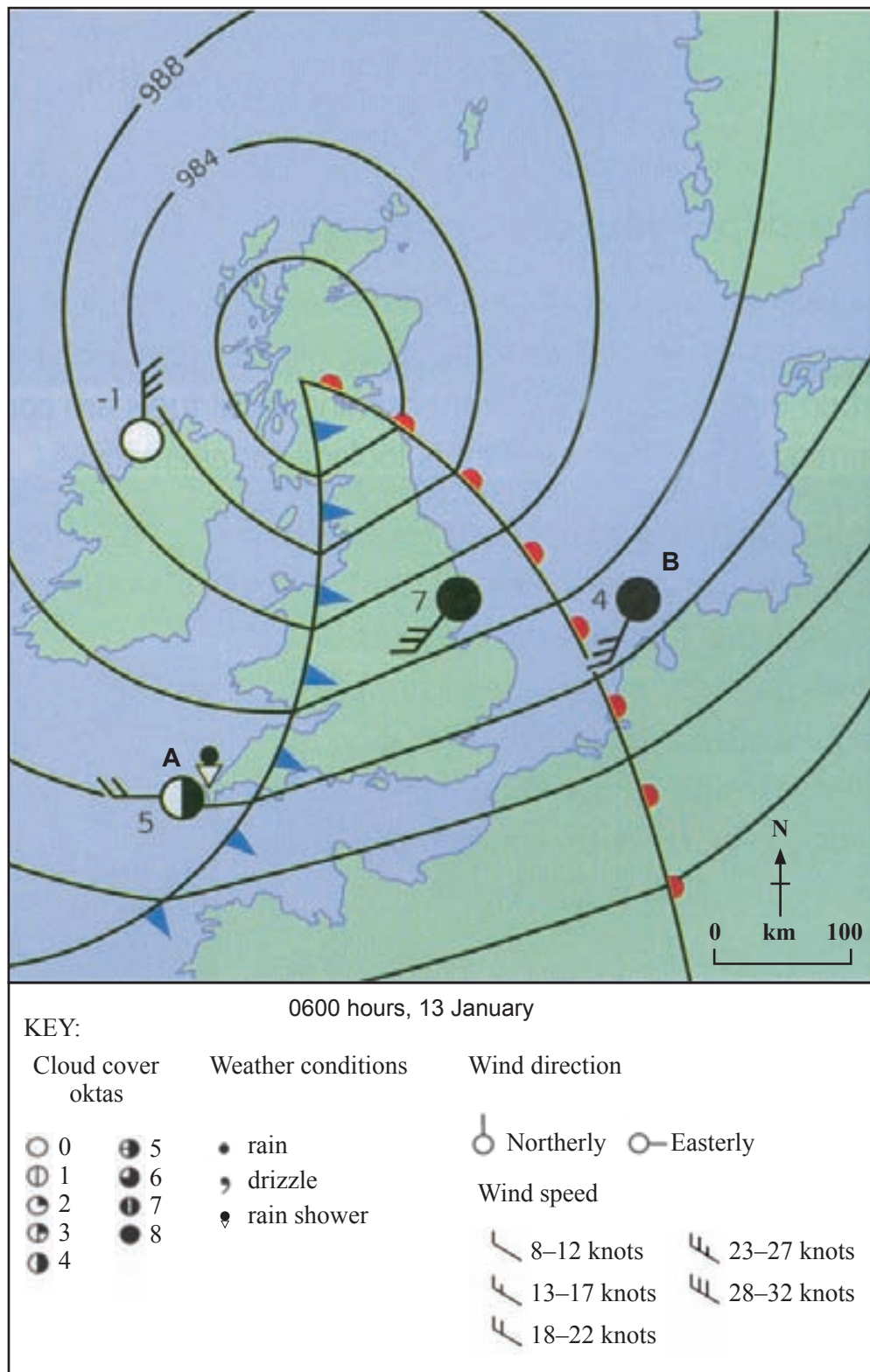
[3]

Examiner Only	
Marks	Remark

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(Question 1 continues overleaf)

(b) Study **Fig. 3**, which shows a weather system over the British Isles. Answer the questions which follow.



© Geog GCSE by Anna King et al (OUP, 2006), copyright © Oxford University Press 2006, reprinted by permission of Oxford University Press

Fig. 3

(i) Underline the type of weather system shown in **Fig. 3**.

Anticyclone Depression Hurricane [1]

(ii) Underline the distance between Weather Station **A** and Weather Station **B**. Use the scale on **Fig. 3** to help you.

150 km 200 km 350 km 500 km [1]

(iii) Complete **Table 1** by ticking true or false for each statement about **Fig. 3**. One has been completed for you.

Table 1

Statement	True	False
There is a warm front near to Weather Station B		
The lowest pressure on the map is 998 mb		
There is an occluded front over the British Isles		
It is raining everywhere in the British Isles		✓

[3]

(iv) Complete this weather report for Station B.

At Station B it is dry. The wind speed is _____ knots. The wind is coming from a _____ direction. Cloud cover is _____ oktas. The temperature is _____ °C. [4]

(v) Describe **two** weather changes likely to happen at Station B as the weather system moves east.

_____ [2]

Examiner Only	
Marks	Remark

(c) Study **Fig. 4**, which names some causes of climate variation across Europe. Answer the questions which follow.

Examiner Only	
Marks	Remark

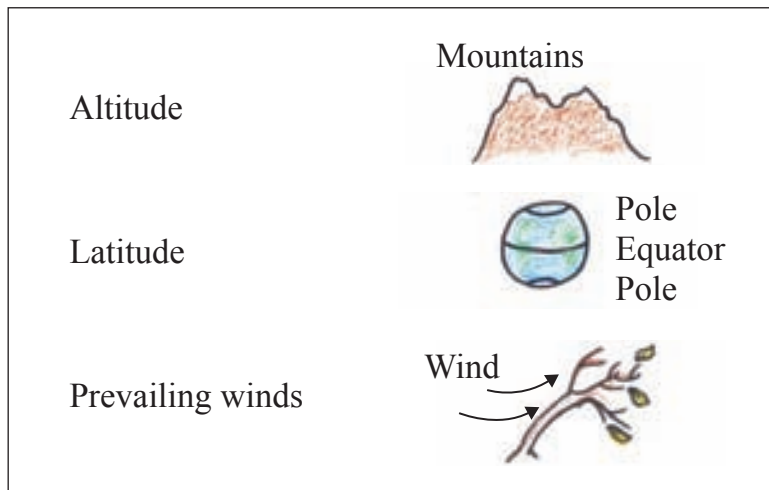


Fig. 4

(i) State the meaning of the term **climate**.

[2]

(ii) State fully how **two** of the factors named in **Fig. 4** affect climate across Europe. Name places in your answers.

Factor 1 _____

Factor 2 _____

[6]

(d) Study **Fig. 5**, which shows four ways the climate in Bali affects rice growing. Answer the questions which follow.



Fig. 5

(i) Show the **three** statements from **Fig. 5** which explain how climate can make farming harder. One has been completed for you.

The statements are **A** _____ [2]

(ii) For a named farming area which you have studied, state fully **one** way in which technology has been used to reduce the impact of climate.

Named farming area _____ [1]

_____ [3]

Examiner Only	
Marks	Remark

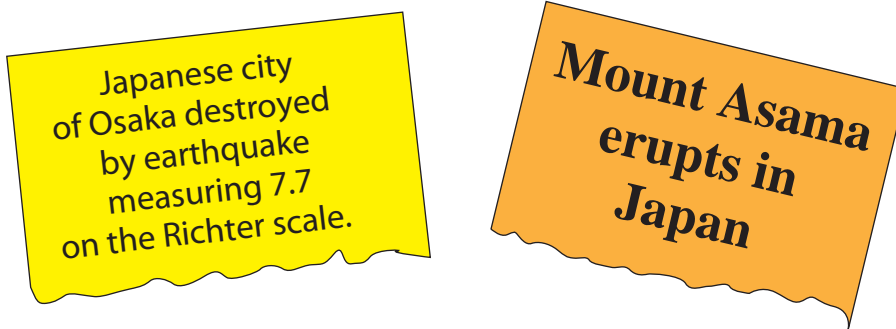
[Turn over

Theme B: Physical Processes and Challenges

Examiner Only

Marks Remark

- 2 (a) Study **Fig. 6**, which shows some headlines from a newspaper. Answer the questions which follow.



Source: Principal Examiner

Fig. 6

- (i) State the name of the volcano in **Fig. 6**.

_____ [1]

- (ii) State the strength of the earthquake in Osaka.

_____ [1]

- (iii) State the meaning of the term volcano.

_____ [2]

- (iv) Japan lies on a destructive plate boundary. Study **Fig. 7** which shows two cross sections of a plate boundary. Choose the **one** diagram which matches a destructive boundary by placing a (✓) in the correct box.

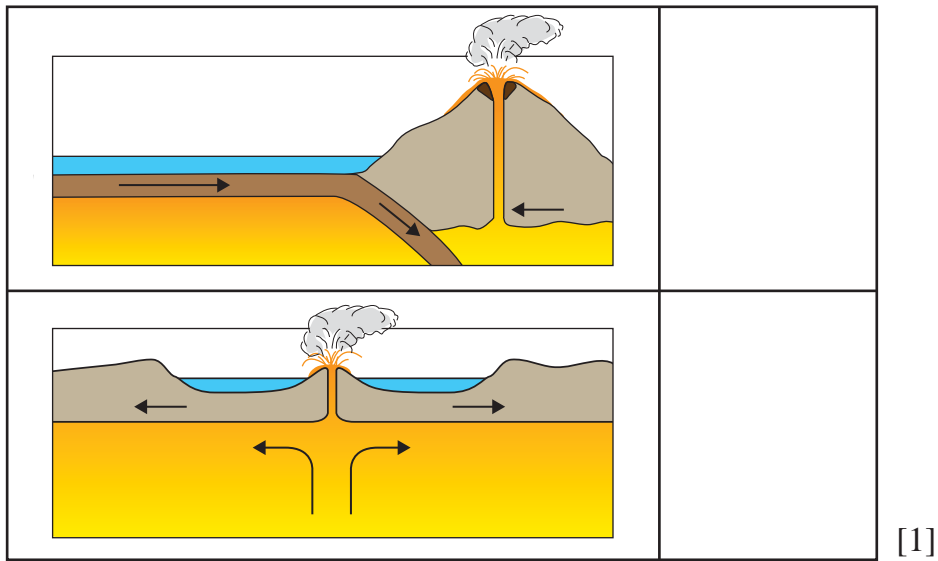


Fig. 7

- (v) Explain why earthquakes occur at a destructive plate boundary .

[3]

- (vi) Underline the answer which is **not** a type of plate boundary.

Constructive **Conservative** **Convective** [1]

- (vii) Name an earthquake that you have studied, describe **one** way by which buildings were made safer after the earthquake.

Name of earthquake _____ [1]

[2]

Examiner Only	
Marks	Remark

(b) Study **Fig. 8**, which shows the size of the load collected from the Ballinderry river in Co. Tyrone. Answer the questions which follow.

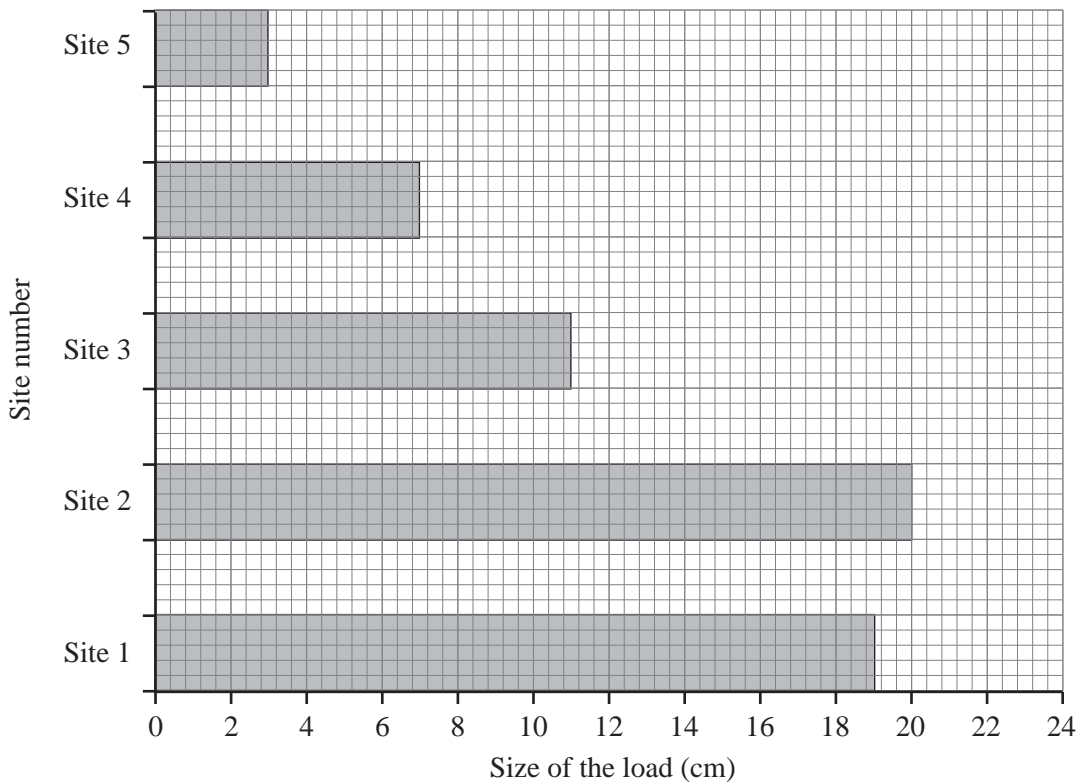


Fig. 8

Site number	Distance from source (km)
1	0.2
2	3
3	7
4	15
5	23

Source: Principal Examiner

(i) Underline the correct words from the statements below (one has been completed for you).

Site 1 does/does not fit the pattern.

The load size at Site 1 is larger/smaller than Site 3.

The data is represented by a line/bar graph.

Site 5 can be found near the source/mouth of the river.

[3]

Examiner Only	
Marks	Remark

(v) Name **one** soft and **one** hard engineering measure used to control flooding. Write your answers in the boxes below.

Soft engineering measure



[1]

Hard engineering measure



[1]

(vi) Using a river management scheme at the national/regional scale that you have studied, state fully **one** negative impact that flooding had on the people.

River management scheme _____ [1]

Negative impact _____

_____ [3]

Examiner Only	
Marks	Remark

(c) Study **Fig. 9**, which shows a limestone feature. Answer the questions that follow.

Examiner Only	
Marks	Remark



© D J Waters & F G Waters www.earth.ox.ac.uk/%7Eoesis/field/index.html

Fig. 9

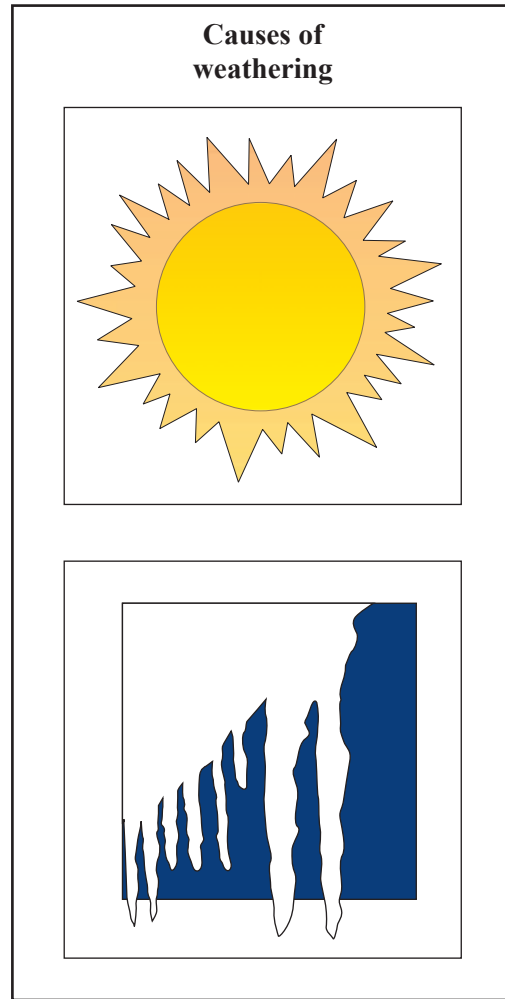
(i) Name the limestone feature shown in **Fig. 9**. Underline the correct name of the feature in the list below .

- Stalactite Limestone cliff Limestone pavement [1]**

(ii) Explain how chemical weathering has helped form this limestone feature in **Fig. 9**.

_____ [4]

(iii) Study **Fig. 10**, which shows causes of weathering. Answer the question which follows.



Source: Principal Examiner

Fig. 10

Explain how changes in temperature cause rocks to weather .

[3]

Examiner Only	
Marks	Remark

(iv) State fully **one** impact of human activity on a limestone area you have studied in the British Isles.

Name of limestone area _____ [1]

Impact _____

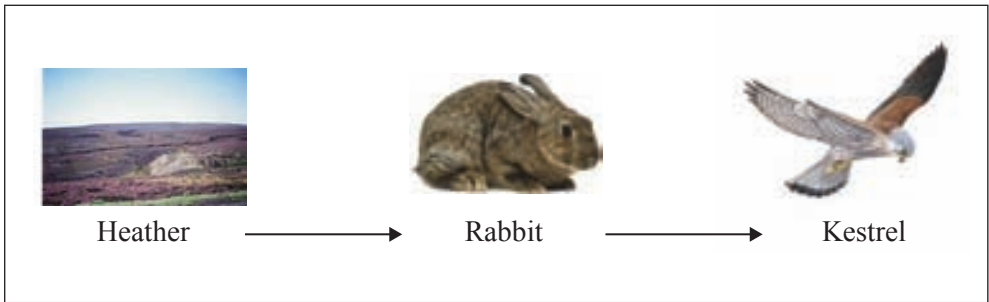
_____ [3]

Examiner Only	
Marks	Remark

Theme C: Ecosystems and Sustainability

Examiner Only	
Marks	Remark

3 (a) Study **Fig. 11**, which shows a peatland food chain in Ireland. Answer the questions which follow.



© Mike Langman (rspb-images.com)
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 © Neville Turner/The Moorland Trust

Fig. 11

(i) Peat is a type of soil. State the meaning of the term **soil**.

_____ [2]

(ii) Name **one** producer and **one** consumer shown in **Fig. 11**.

Producer _____ [1]

Consumer _____ [1]

(iii) State fully **one** consequence for this ecosystem if farmers burn large areas of heather on peatland.

_____ [3]

(iv) State whether the following are true or false.

	True/False
There will be fewer kestrels than rabbits.	
Heather is a plant and is part of the peatland flora.	

[2]

(v) State fully **one** way afforestation changes the peatland ecosystem.

_____ [3]

(vi) Describe **one** conservation measure in a peatland ecosystem within Northern Ireland.

Area of peatland _____ [1]

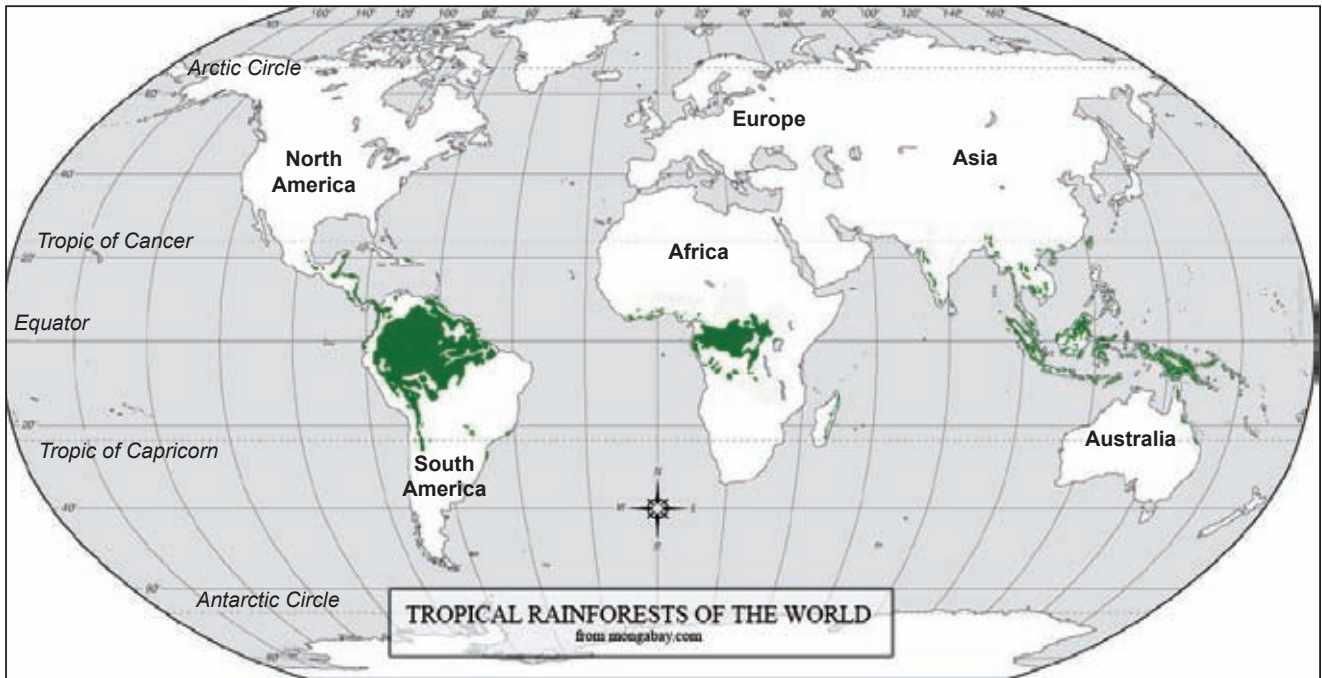
Conservation measure _____

_____ [2]

Examiner Only	
Marks	Remark

[Turn over

(b) Study **Fig. 12**, which shows the global distribution of tropical rainforests. Answer the questions which follow.



Key: ■ Tropical rainforests

© Mongabay.com <http://www.mongabay.com/images/rainforests/world-rainforest-map.jpg>

Fig. 12

(i) Complete the following paragraph using words from the box below.

large poles equator North Africa

Rainforests exist close to the _____, between the Tropic of Cancer and Tropic of Capricorn. Southern Asia has _____ areas of rainforest. Western Central _____ has some rainforest. Continents like _____ America have no rainforest. [4]

(ii) Underline on the list below **two** words which best describe the climate of rainforests.

Cold Hot Wet Dry [2]

Examiner Only	
Marks	Remark

(iii) State fully **one** way the climate of tropical rainforests affects the vegetation.

[3]

Examiner Only	
Marks	Remark

(c) Study **Fig. 13**, which shows large scale deforestation of a rainforest. Answer the questions which follow.



Photograph contained in an article "Crude Awakening, as Alternative Energy Heats Up, Environmental Concerns Grow", by P Barta and J Spence. The Wall Street Journal, December 5, 2006. "Reprinted with permission of The Wall Street Journal, Copyright © 2006 Dow Jones & Company, Inc. All Rights Reserved Worldwide

Fig. 13

(i) State fully **two** impacts large scale deforestation has on the plants and animals of a named tropical rainforest which you have studied.

[6]

(ii) Describe **one** way tropical rainforests are being protected.

[2]

Examiner Only	
Marks	Remark

(d) Study **Fig. 14**, which gives information about an ecotourism holiday location in Norfolk, England. Answer the questions which follow.

Examiner Only	
Marks	Remark



Deepdale Farm

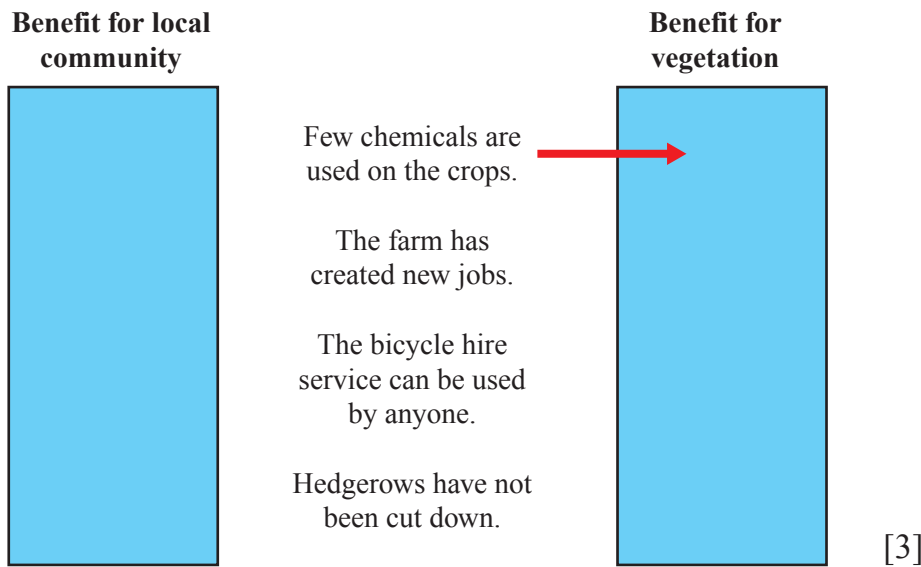
Come and stay at our award winning eco-friendly farm campsite.

- We have kept our hedgerows to encourage bird life.
- We have local guides to help you get the most from your holiday.
- We farm our crops without chemicals to encourage lots of wild plants.

Fig. 14

© Deepdale Farm

(i) Complete the diagram below by sorting each statement into a benefit to the local community or vegetation. One has been completed for you.



[3]

(ii) State the meaning of the term **ecotourism**.

[2]

(iii) For a tropical ecosystem you have studied, state fully **one** disadvantage which ecotourism has brought.

[3]

Examiner Only	
Marks	Remark
Quality of written communication	

THIS IS THE END OF THE QUESTION PAPER

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