Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME	
CENTRE NUMBER	CANDIDATE NUMBER

GEOGRAPHY **0460/22**

Paper 2 **October/November 2018**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Plain paper
Calculator

1:50 000 Survey Map Extract is enclosed with this Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Write your answer to each question in the space provided.
If additional space is required, you should use the lined pages at the end of the booklet. The question number(s) must be clearly shown.

Answer **all** questions.

The Insert contains Figures 3.1 and 3.2 for Question 3.
The Survey Map Extract and the Insert are **not** required by the Examiner.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

Definitions
MEDCs – More Economically Developed Countries
LEDCs – Less Economically Developed Countries

This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **18** printed pages, **2** blank pages, and **1** Insert.

CAMBRIDGE International Examinations

1 Study the map extract for Furusjøen, Norway. The scale is 1:50 000.

(a) Fig. 1.1 shows some of the features close to the Glitra river in the south east part of the map extract. Study Fig. 1.1 and the map extract, and answer the questions below.

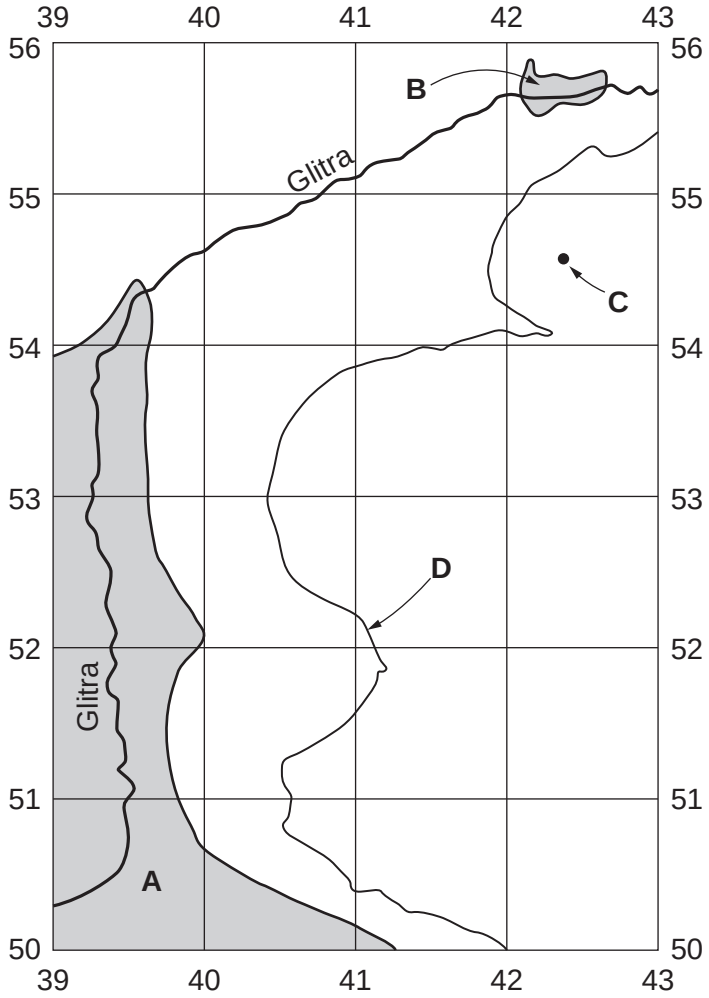

Fig. 1.1

(i) Identify the land use at **A**.

.....[1]

(ii) What type of land is shown at **B**?

.....[1]

(iii) What is the height above sea level of the spot height at **C**?

..... metres [1]

(iv) What is the height above sea level of the contour at **D**?

..... metres [1]

(v) What is the direction of flow of the Glitra river in the area shown on Fig. 1.1? Tick **one** correct answer below.

	Tick (✓)
south west then south	
south east then south	
north then north east	
north west then south	

[1]

(vi) What is the distance along the Glitra river in the area shown on Fig. 1.1? Tick **one** correct answer below.

	Tick (✓)
5½ kilometres	
6½ kilometres	
7½ kilometres	
8½ kilometres	

[1]

(b) Look at the main settlement in the central part of the map extract. Give **three** services provided for tourists in this settlement.

1 .....

2 .....

3 ..... [3]

(c) Fig. 1.2 is a cross section along northing 59 from 370590 to the eastern edge of the map at 430590.

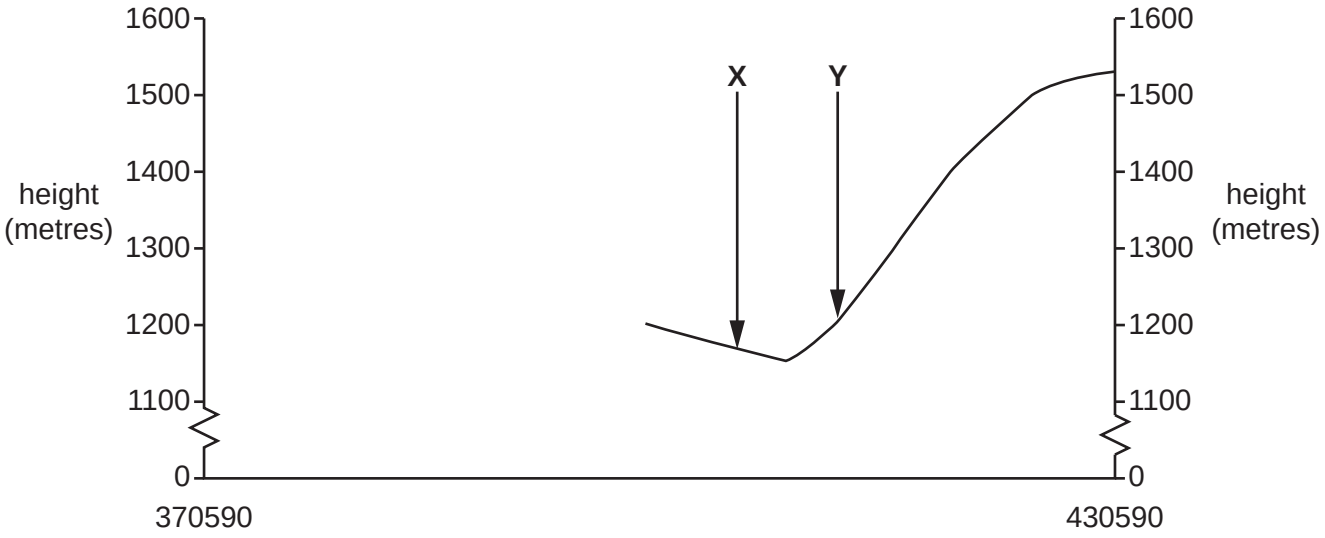

Fig. 1.2

(i) Identify the feature at **X**.

..... [1]

(ii) Identify the feature at **Y**.

..... [1]

(iii) The cross section shown on Fig. 1.2 is incomplete. Using information from the map extract, draw a line on Fig. 1.2 to **complete the cross section**. [2]

(d) Fig. 1.3 shows an area in the north east of the map extract.

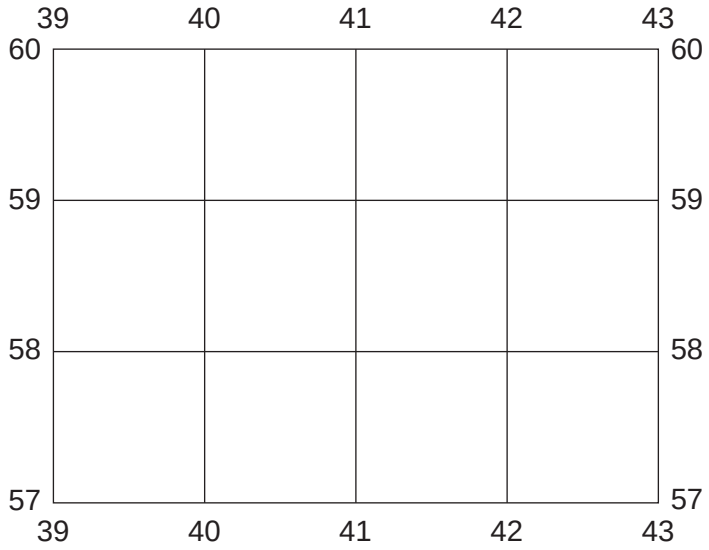

Fig. 1.3

(i) Describe the relief of the area shown in Fig. 1.3.

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.....

.....

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.....[4]

(ii) Describe the drainage of the area shown in Fig. 1.3.

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.....[3]

[Total: 20]

2 Fig. 2.1 shows eight countries located next to the Mediterranean Sea.

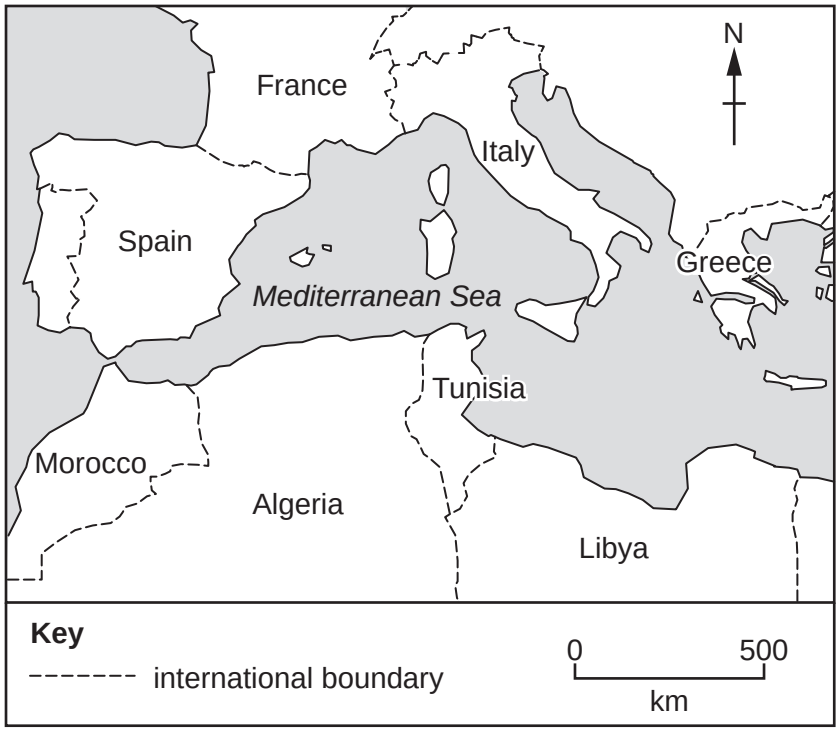

Fig. 2.1

Table 2.1 gives information about the population of these countries.

Table 2.1

	Annual growth rate (%)		Birth rate (per thousand)		Life expectancy in 2015 (years)
	before 2012	2012 to 2030 (expected)	1970	2012	
Algeria	1.7	1.3	46.7	24.6	71
Libya	1.7	1.1	46.9	21.1	75
Morocco	1.3	1.0	43.2	22.6	71
Tunisia	1.3	0.8	40.9	17.4	76
France	0.5	0.4	16.8	12.4	82
Greece	0.4	–0.1	16.6	9.9	81
Italy	0.3	0	17.4	9.3	82
Spain	0.8	0.2	19.6	10.6	82

(a) Which type of graph would be most suitable to show the information about life expectancies in Table 2.1?

.....

[1]

(b) Which country shown in Table 2.1 is expected to have a population decrease by 2030?

..... [1]

(c) Which country shown in Table 2.1 had the smallest decrease in birth rate between 1970 and 2012?

..... [1]

(d) Life expectancy is longer in countries north of the Mediterranean Sea than in countries south of the Mediterranean Sea.

Using Fig. 2.1 and Table 2.1, what is the average difference in life expectancy between the two groups of countries? Tick **one** correct answer below. [1]

	Tick (✓)
6 years	
9 years	
12 years	
15 years	

(e) Look at the population growth rates before and after 2012 shown in Table 2.1.

(i) Give **one difference** in the growth rates of the countries north of the Mediterranean Sea and the growth rates of countries south of the Mediterranean Sea.

.....[1]

(ii) Give **one similarity** between the growth rates of the countries north of the Mediterranean Sea and the growth rates of countries south of the Mediterranean Sea.

.....[1]

(f) Look at the birth rates in 1970 and 2012 shown in Table 2.1.

(i) Give **one difference** in the birth rates of the countries north of the Mediterranean Sea and the birth rates of countries south of the Mediterranean Sea.

.....[1]

(ii) Give **one similarity** between the birth rates of the countries north of the Mediterranean Sea and the birth rates of countries south of the Mediterranean Sea.

.....[1]

[Total: 8]

3 Urbanisation is the increase in the proportion of a country's population that live in towns and cities. Rapid urbanisation leads to the development of residential areas like those shown in Figs. 3.1 and 3.2 (Insert).

(a) Describe the residential area shown in Fig. 3.1.

.....

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.....

.....

.....

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.....

.....

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.....[5]

(b) Using evidence from the photographs, describe **three** advantages of living in the residential area in Fig. 3.2 compared to the residential area in Fig. 3.1.

1 .....

.....

.....

2 .....

.....

.....

3 .....

.....

.....[3]

[Total: 8]

4 Table 4.1 shows weather information for Mbabane, Swaziland for five days in 2016.

Table 4.1

Date	Maximum temperature (°C)	Minimum temperature (°C)	Pressure (mb)	Relative humidity (%)
February 2	25	16	1008	50
February 3	32	20	1006	35
February 4	28	17	1010	
February 5	20	13	1016	67
February 6	25	15	1013	48

(a) Fig. 4.1 shows the temperatures for the five days.

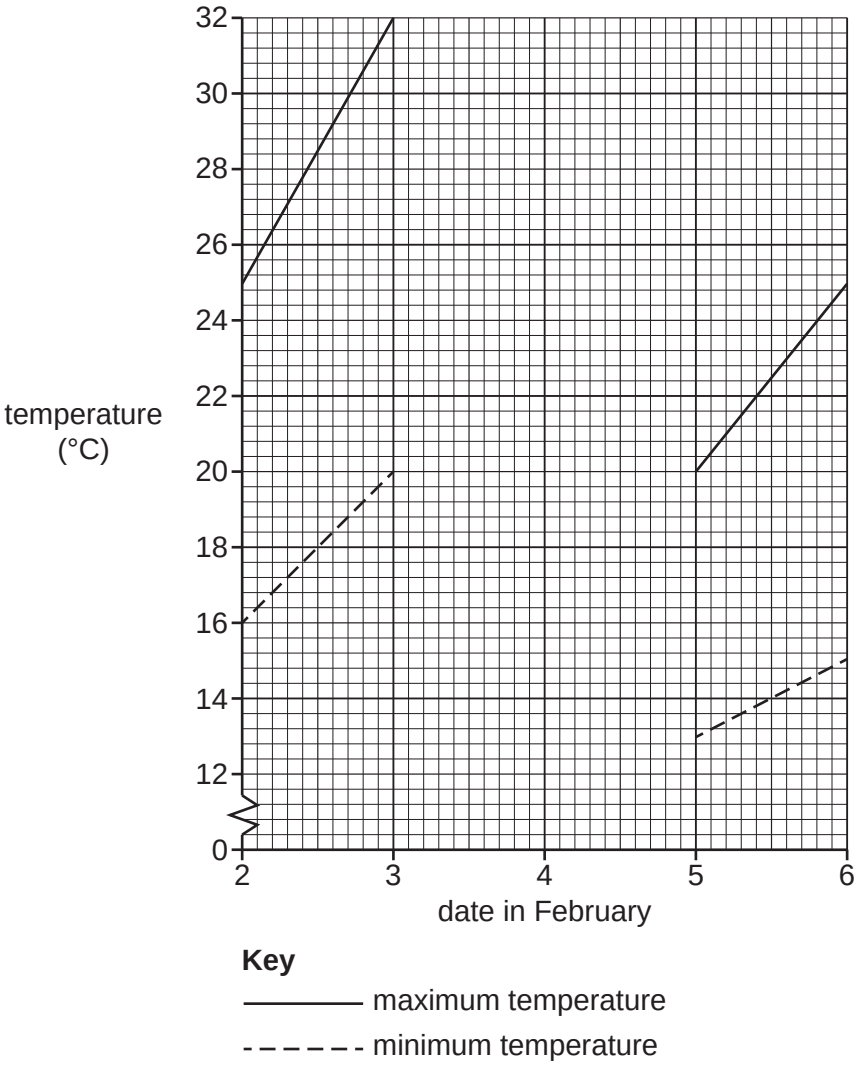

Fig. 4.1

(i) Use the information in Table 4.1 to **complete Fig. 4.1**. [2]

(ii) Which date has the greatest range of temperature?

..... [1]

(iii) The units of pressure are abbreviated as mb. What does mb stand for?

..... [1]

(b) The relative humidity for February 4 has been omitted from Table 4.1. This can be calculated from the readings of the wet and dry bulb thermometers (hygrometer) shown in Fig. 4.2 and the conversion table shown in Table 4.2.

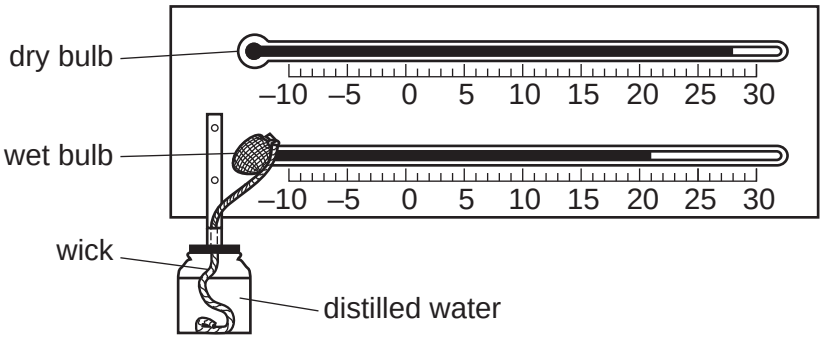

Fig. 4.2

Table 4.2

Dry bulb reading (°C)	Wet bulb depression (°C)								
	1	2	3	4	5	6	7	8	9
	%	%	%	%	%	%	%	%	%
32	93	86	80	74	68	62	57	51	46
30	93	86	79	73	67	61	55	50	44
28	93	85	78	72	65	59	53	48	42
26	92	85	78	71	64	58	51	46	40
24	92	84	77	69	62	56	49	43	37
22	92	83	76	68	61	54	47	40	34
20	91	83	74	66	59	51	44	37	30

(i) State the readings of the wet and dry bulb thermometers in Fig. 4.2.

Wet bulb .....

Dry bulb ..... [1]

(ii) Calculate the depression of the wet bulb.

..... [1]

(iii) Using your answers to **(b)(i)** and **(ii)** and Table 4.2, state the relative humidity for February 4.

..... [2]

[Total: 8]

5 Fig. 5.1 shows the tectonic plates, plate movements and plate margins around the Atlantic Ocean.

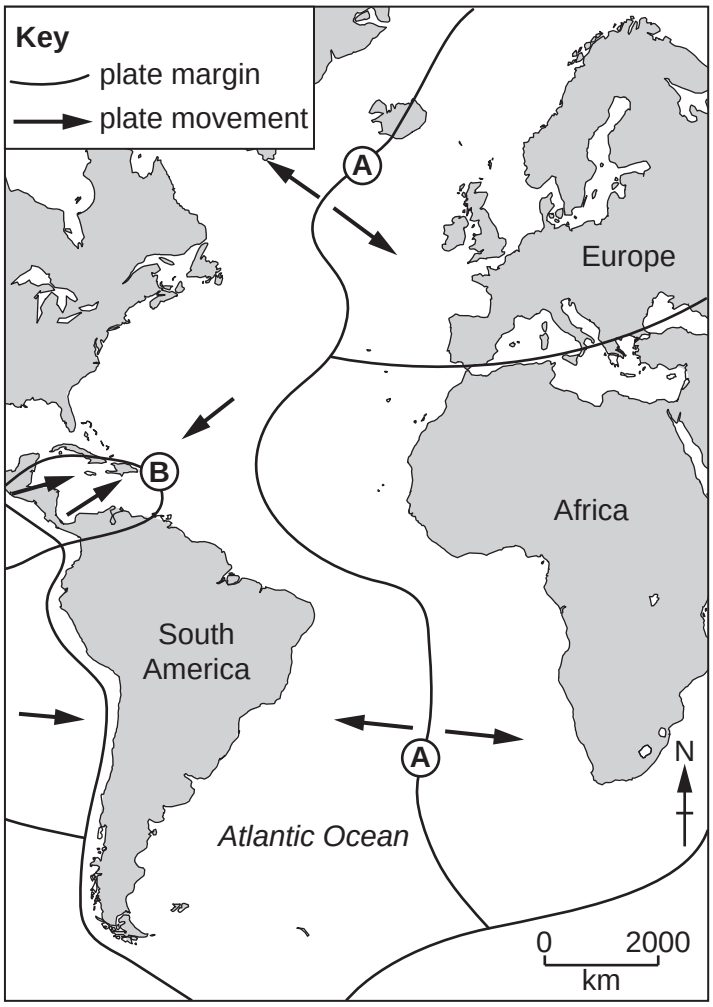

Fig. 5.1

(a) Identify the types of plate margin shown at **A** and **B**.

A .....

B ..... [1]

Fig. 5.2 is a cross section through plate margin **A** and Fig. 5.3 is a cross section through plate margin **B**.

Plate margin A

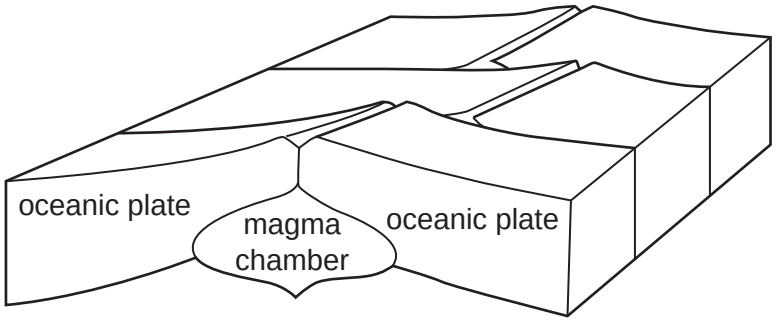

Fig. 5.2

Plate margin B

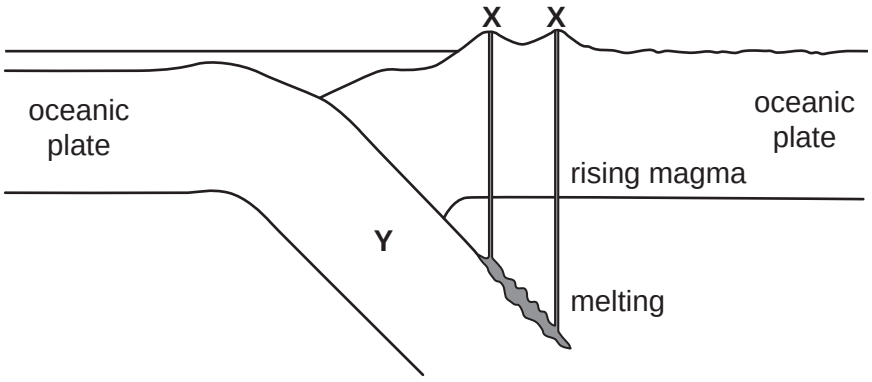

Fig. 5.3

(b) **Draw pairs of arrows** on Figs. 5.2 and 5.3 to show the directions of plate movement. [2]

(c) The Atlantic Ocean is getting wider. Use evidence from Figs. 5.1 and 5.2 to explain this.

.....

.....

.....

.....

.....

.....

.....[3]

(d) **(i)** Identify the features labelled **X** shown on Fig. 5.3. .....[1]

(ii) Identify the process at **Y** shown on Fig. 5.3. .....[1]

[Total: 8]

6 In recent years people have become more concerned about global warming.

(a) Which **two** of the following statements about global warming are correct? Tick **two** boxes.

Statement	Tick (✓)
the ozone layer affects global warming	
the amount of nitrogen in the atmosphere affects global warming	
global warming is caused by earthquakes	
decreased carbon dioxide in the atmosphere will increase global warming	
increased carbon dioxide in the atmosphere will increase global warming	
global warming is a result of an increase in the greenhouse effect	
global warming will cause a fall in sea level	

[2]

(b) Fig. 6.1 shows predicted changes in crop yields between 2000 and 2100 as a result of global warming.

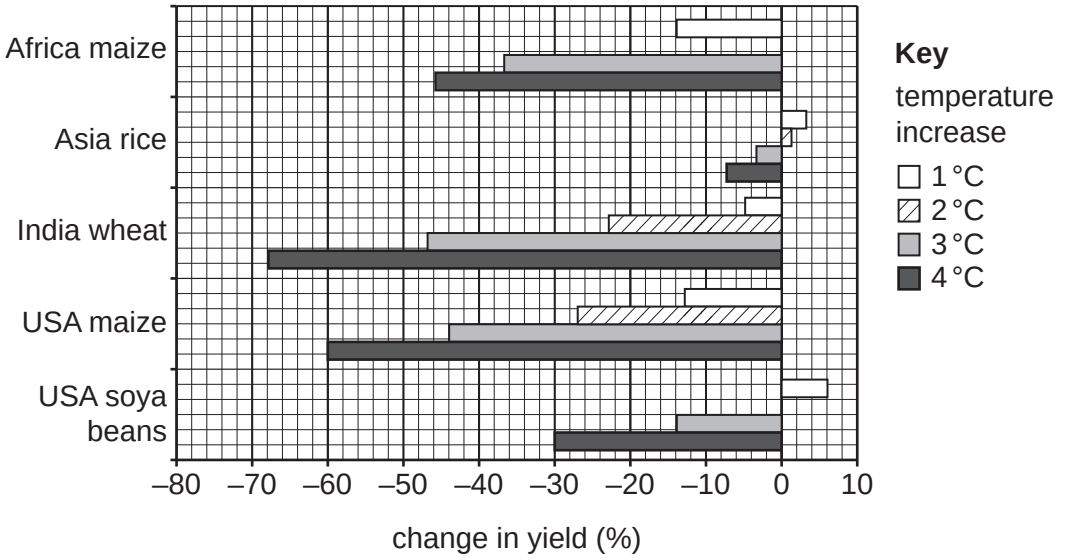

Fig. 6.1

(i) If temperatures increase by 2 °C, Africa's maize yields are predicted to drop by 25%. **Plot this information on Fig. 6.1.** [1]

(ii) Using data from Fig. 6.1, state the effect of:

– a 4 °C increase in temperature on maize yields in USA;

.....

– a 1 °C increase in temperature on soya bean yields in USA.

.....

[2]

(c) Fig. 6.2 shows predicted changes in crop yields in temperate and tropical areas between 2000 and 2100 as a result of global warming.

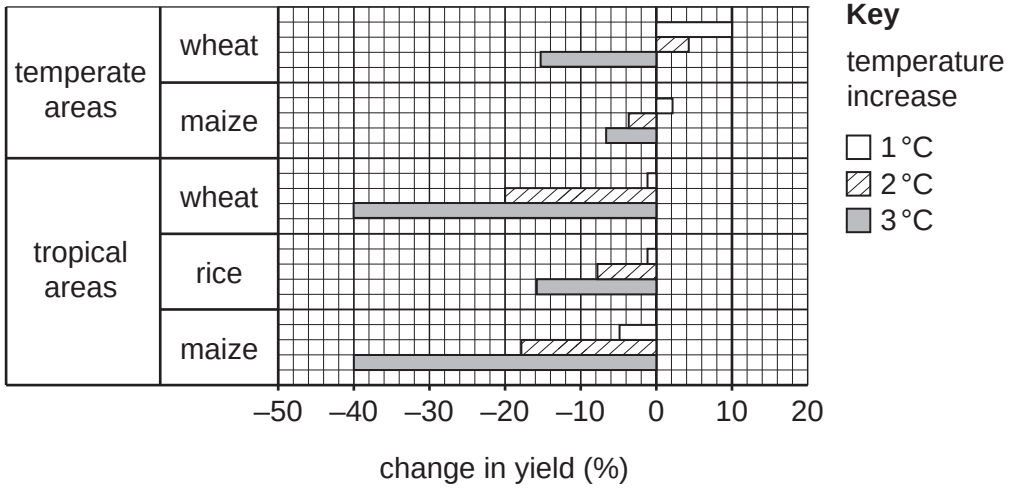

Fig. 6.2

Using information from Fig. 6.2 **only**, suggest how farmers might change their production of wheat, rice and maize because of global warming.

(i) farmers in **temperate** areas

.....

.....

.....

.....

.....

(ii) farmers in **tropical** areas

.....

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.....

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.....[3]

[Total: 8]

Additional Pages

If you use the following lined pages to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

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