GradeMax

Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CANDIDATE NUMBER | | | | |

7540686501

GEOGRAPHY **0460/21**

Paper 2 **May/June 2017**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Protractor
Plain paper
Calculator

1:25 000 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 this booklet. The question number(s) must be clearly shown.

Answer **all** questions.

The Insert contains Photograph A for Question 4, and Photograph B for Question 6.
The Insert is **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

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

This document consists of **20** printed pages and **1** Insert.

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CAMBRIDGE International Examinations

[Turn over

1 Study the map extract for Voss, Norway. The scale is 1:25 000.

(a) Fig. 1 shows some of the features of the main settlement of Voss. Study Fig. 1 and the map extract, and answer the questions below.

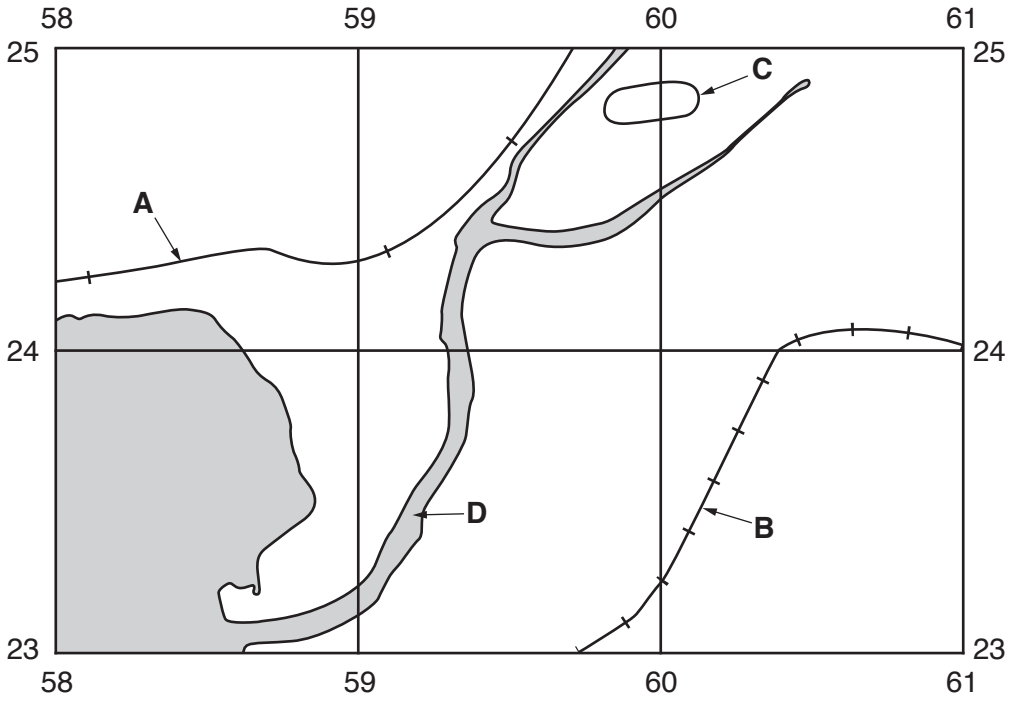


Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

(i) feature **A**;

.....[1]

(ii) feature **B**;

.....[1]

(iii) feature **C**;

.....[1]

(iv) the name of the river at **D**.

.....[1]

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(b) Describe the site of the settlement at Voss.

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.....[4]

(c) Describe the relief of the area around Sonvesåsen in the south east of the map extract.

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.....[4]

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(d) Fig. 2 is a cross section along northing 26 from 580260 to 610260.

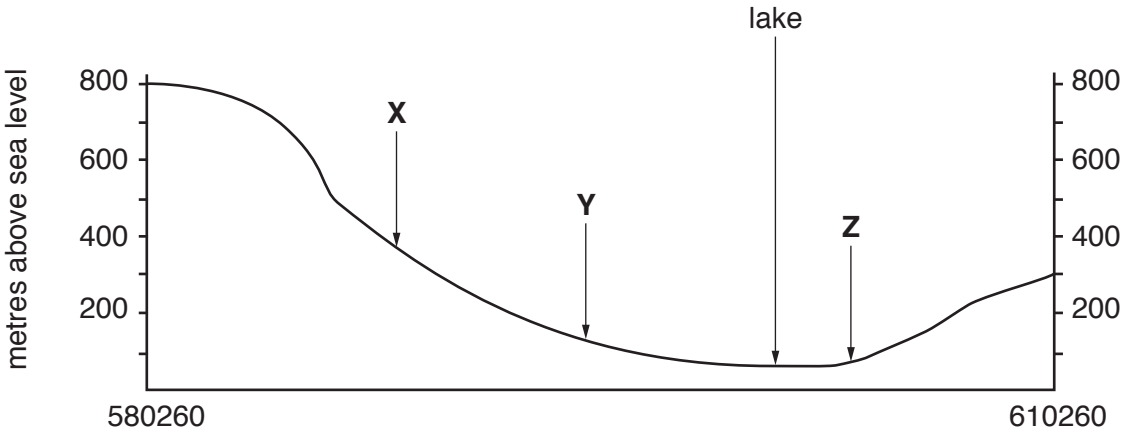


Fig. 2

Identify:

(i) the land use at **X**;

.....[1]

(ii) the land use at **Y**;

.....[1]

(iii) the feature at **Z**.

.....[1]

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(e) Fig. 3 shows the road from the southern edge of the map at 593210 to the road junction at point **X** at 584223.

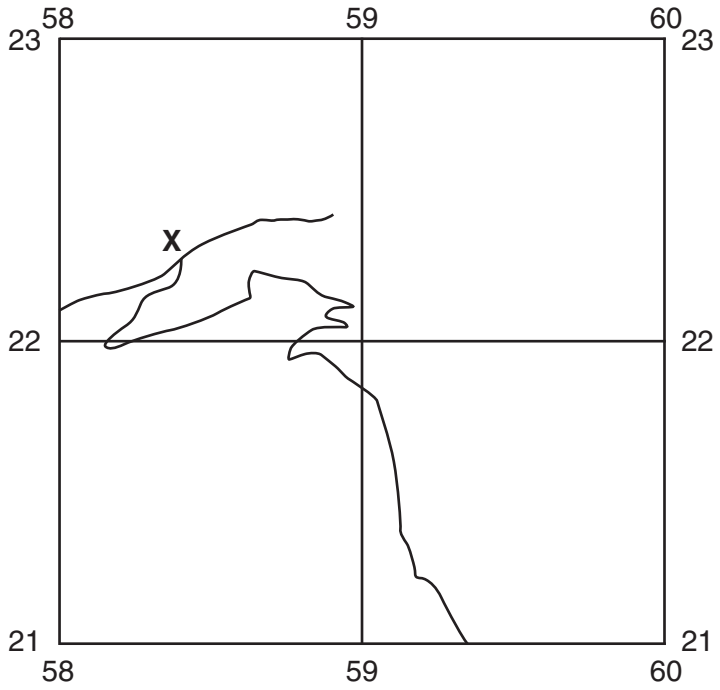


Fig. 3

(i) What is the distance along the road? Circle **one** correct answer below.

750 metres 1550 metres 2050 metres 3050 metres [1]

(ii) Describe the route of the road from the southern edge of the map to the road junction at **X**.

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.....[4]

[Total: 20 marks]

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2 The local council in North Devon, UK, made a map of the settlement hierarchy in the area. They used five orders of settlement. The results are shown on Fig. 4.

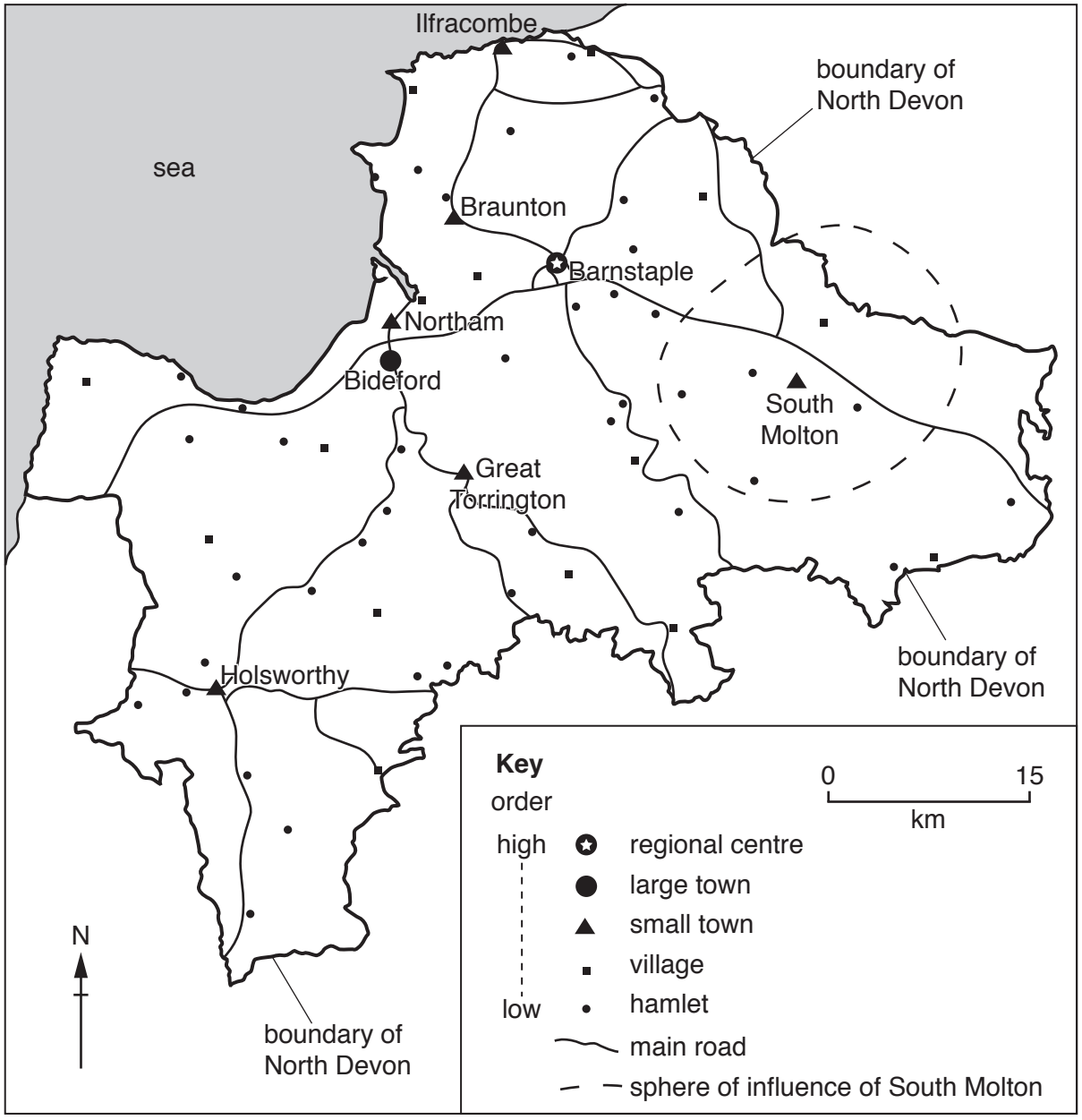


Fig. 4

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(a) (i) How many settlements on Fig. 4 are classified as small towns?

..... [1]

(ii) Using Fig. 4, describe the relationship between:

order of settlement and number of settlements;

.....

.....

order of settlement and distance between settlements.

.....

.....[2]

(b) The boundary of the sphere of influence of South Molton is shown on Fig. 4.

On Fig. 4, **draw another circle** to show the likely sphere of influence of Braunton. [1]

(c) Using evidence from Fig. 4, suggest why Holsworthy has grown into the most important settlement in the south west of the area.

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.....[2]

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(d) To decide the order of a settlement in the hierarchy, the council analysed the services provided. They used the descriptions shown in the table below. For each description, show the rank order of each settlement in the hierarchy by adding the numbers **1** – **5** in the second column.

Description of settlement	Order (1 = highest, 5 = lowest)
• At least 16 or more convenience and 100 or more comparison stores • Primary and secondary schools up to the age of 18 • Good public transport services via bus	
• A convenience shop • A primary school • Some community facilities • Limited access to public transport	
• No local services (e.g. shop) • No schools • Limited access to public transport	
• At least 16 or more convenience and 100 or more comparison stores • Primary and secondary schools up to the age of 18 • The widest range of community services and facilities • Good public transport services via bus and rail	
• At least 6 or more convenience and 10 or more comparison stores • Primary and secondary schools up to the age of 16 • Reasonable access to public transport	

[2]

[Total: 8 marks]

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TURN PAGE FOR QUESTION 3

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3 Fig. 5 shows the location of the Philippines in Southeast Asia. The islands have 17 active volcanoes and some of the main ones are shown on Fig. 5. A convergent (destructive) plate boundary is also shown.

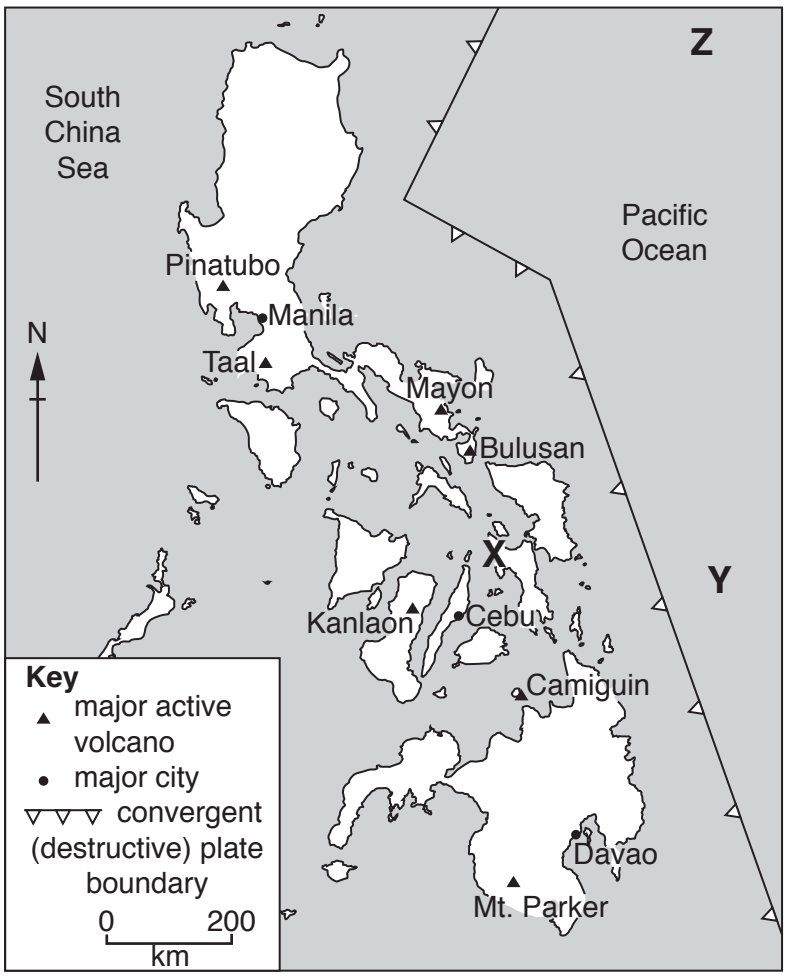


Fig. 5

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(a) (i) On Fig. 5, **draw two arrows**, one on each plate, to show the direction of plate movement in the area. [1]

(ii) Which **one** of locations **X**, **Y** and **Z** on Fig. 5 shows the position of a subduction zone beneath the surface? Tick **one** box below.

	Tick (✓)
X	
Y	
Z	

[1]

(iii) Describe the distribution of volcanoes shown on Fig. 5.

.....

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.....[2]

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(b) Study Fig. 6, which shows Mayon, one of the most active of the volcanoes in the Philippines. The areas most at risk from mudflows (lahars) are shown.

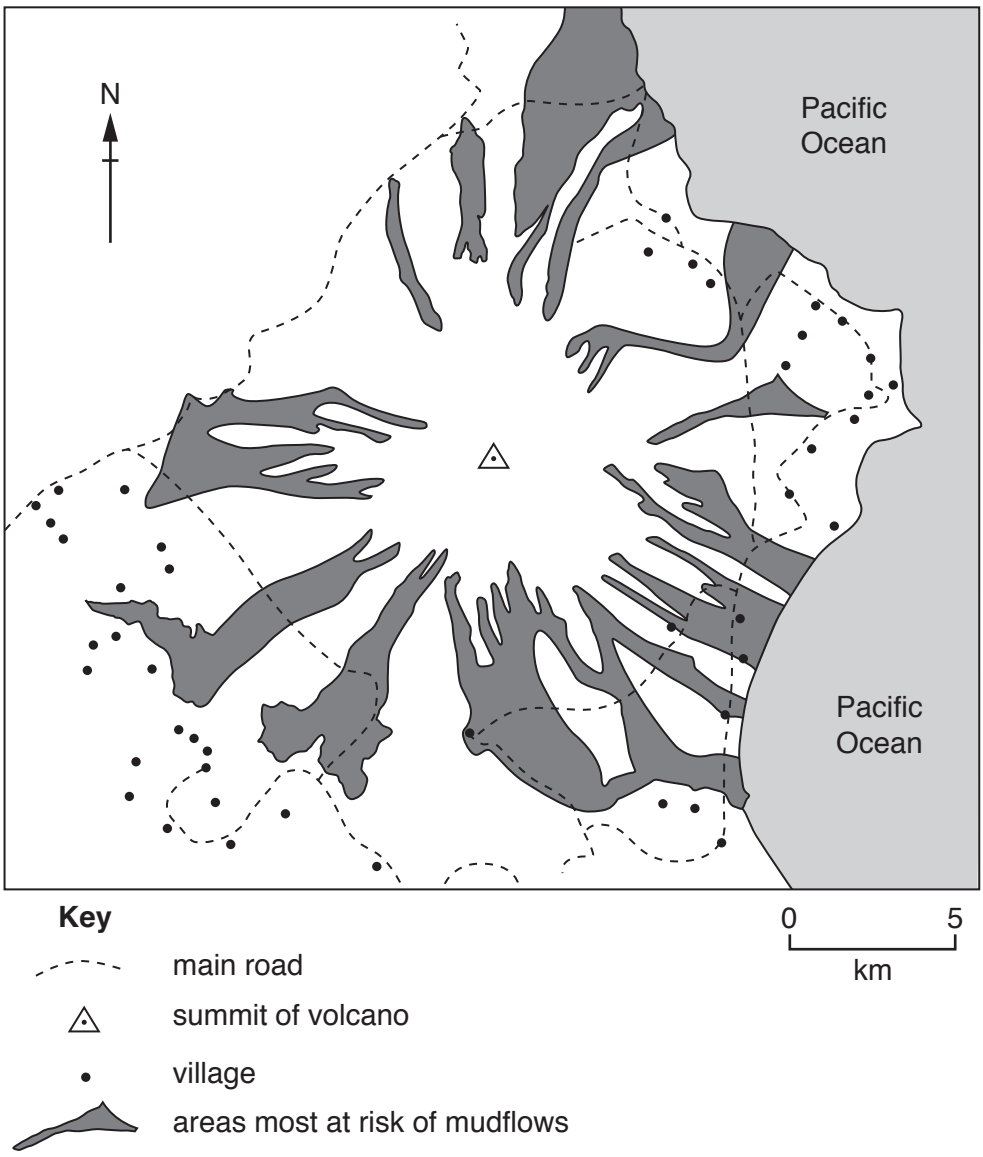


Fig. 6

Using evidence from Fig. 6 **only**, suggest the possible effects of mudflows on the lives of people in the villages close to the east coast.

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.....[2]

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(c) Choose **two** other life-threatening volcanic hazards apart from mudflows. Explain how each hazard is a threat to human life.

Hazard 1

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Hazard 2

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.....[2]

[Total: 8 marks]

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4 Photograph A (Insert) shows an area in Africa.

(a) Describe the vegetation shown in the photograph.

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.....[4]

(b) Study Fig. 7, which shows the climate of the area shown in Photograph A.

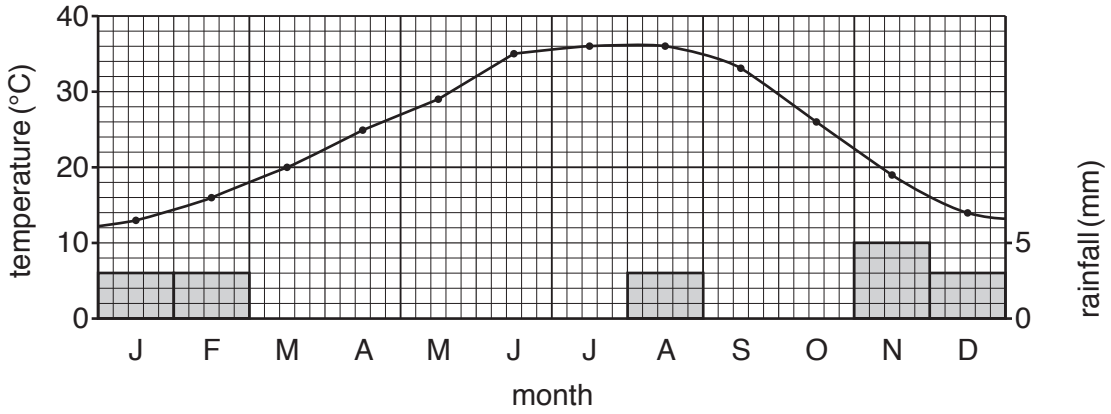


Fig. 7

Use the information in Fig. 7 to complete the table below.

Feature of the climate	Amount	Description
temperature in July	36 °C	.....
temperature in January	.....°C	warm
annual temperature range	.....°C	quite high
annual rainfall	34 mm	.....

[4]

[Total: 8 marks]

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5 **(a)** Why is safe drinking water important to the people of a country?

.....

.....

.....

.....

.....[2]

(b) Table 1 gives information about drinking water and sanitation in five countries in Asia and Australasia.

Table 1

Country	Access to safe drinking water sources (% of population)		Access to good sanitation facilities (% of population)	
	Urban	Rural	Urban	Rural
Australia	100	100	100	100
Bangladesh	85	82	55	54
India	96	89	59	23
Indonesia	92	75	73	43
Papua New Guinea	89	33	56	13

(i) Which **one** of the five countries has the poorest supply of safe drinking water and poorest access to good sanitation?

..... [1]

(ii) Compare the drinking water and sanitation of rural areas with those of urban areas.

.....

.....

.....

.....

.....[2]

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(c) The use of water by the five countries is shown in Table 2.

Table 2

Country	Agriculture (%)	Domestic (%)	Industrial (%)
Australia	66	21	13
Bangladesh	88	10	2
India	91	7	2
Indonesia	70	11	19
Papua New Guinea	0.3	57.7	42

(i) Fig. 8 shows water use in Australia. Using information from Table 2, **complete Fig. 8**. Use the key provided. [1]

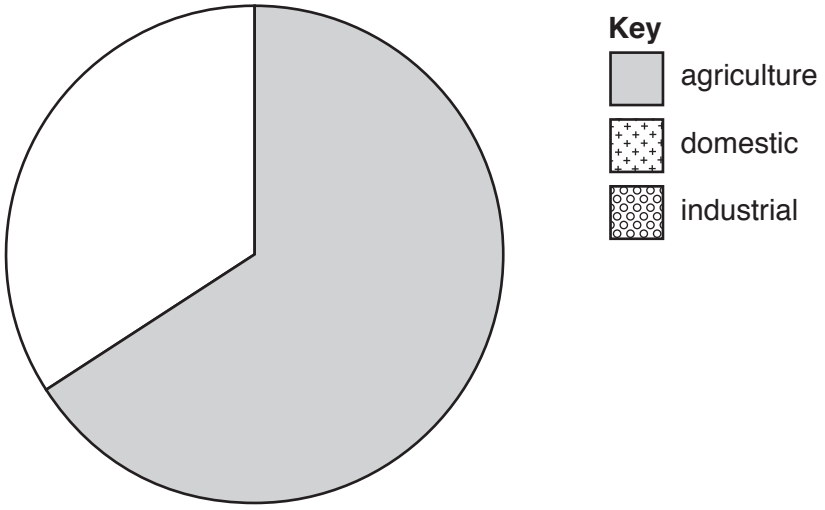


Fig. 8

(ii) Describe the main features of water use in the five countries shown in Table 2. Do not use figures in your answer.

.....

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.....

.....

.....[2]

[Total: 8 marks]

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6 **(a)** Photograph B (Insert) shows an area of commercial farming.

(i) Which **one** of the following statements describes the farming system shown in the photograph? Tick **one** box below.

	Tick (✓)
large-scale arable	
large-scale pastoral	
small-scale arable	
small-scale pastoral	

[1]

(ii) Photograph B shows **two** methods used to prevent soil erosion. Identify each method and explain how it prevents soil erosion.

Method 1

.....

.....

.....

.....

Method 2

.....

.....

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.....[4]

(b) Study Fig. 9, which gives information about sugar.

> Sugar is traded across the world and used in many processed foods and drinks.
>
> Most of the world's sugar is produced from sugar cane, a grass-like plant grown mainly in tropical countries. The remaining 20% is produced from sugar beet, a root crop grown in temperate areas.
>
> The European Union (EU) gives farmers in Europe US$28 for each tonne of sugar beet grown.
>
> In the past, the EU limited the amount of sugar beet that farmers in Europe were allowed to grow. In 2015, the EU removed this limit.

Fig. 9

Suggest the effect on the following people and organisations of removing the limit on the amount of sugar beet produced in Europe.

(i) A sugar beet farmer in Europe.

.....

.....

.....[1]

(ii) A sugar cane farmer in Jamaica, an LEDC.

.....

.....

.....[1]

(iii) A transnational drinks company.

.....

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.....[1]

[Total: 8 marks]

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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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