



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE
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GEOGRAPHY

0460/11

Paper 1

October/November 2014

1 hour 45 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 Calculator

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 page at the end of this booklet. The question number(s) must be clearly shown.

Answer **three** questions.

The Insert contains Photographs A, B and C and Fig. 1B for Question 1, and Photographs D and E for Question 3.

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.

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 **26** printed pages, **2** blank pages and **1** Insert.

QUESTION 1

- (a) Study Fig. 1A, which shows information about the population density in Australia, and Fig. 1B (Insert) which shows information about the population distribution in Australia.

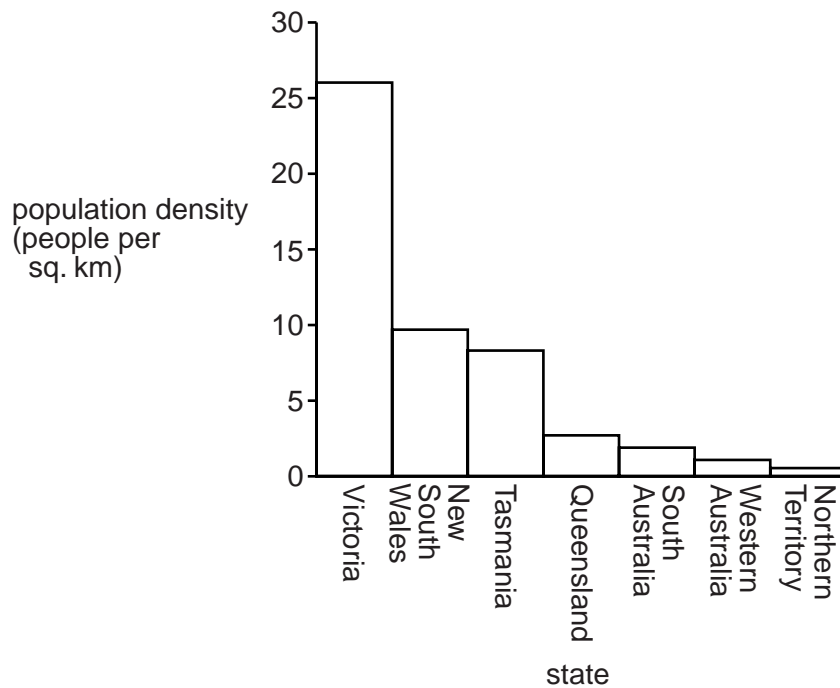


Fig. 1A

- (i) Using Fig. 1A, compare the population density of Victoria and New South Wales.

.....
 [1]

- (ii) What is the difference between population density and population distribution?

.....

 [2]

- (iii) Using Fig. 1B (Insert), describe **three** features of the distribution of Australia's population.

1

 2

 3
 [3]

(b) Study Photographs A, B and C (Insert), which show areas which are sparsely populated.

(i) Give **one** reason why each of the areas shown has a low population density. You should choose a different reason for each photograph.

Photograph A

.....

Photograph B

.....

Photograph C

..... [3]

(ii) Explain how climate can influence population density.

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(iii) Explain why many coastal areas are densely populated.

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QUESTION 2

(a) Study Fig. 2, which shows information about the settlement hierarchy in Meath County in the Republic of Ireland.

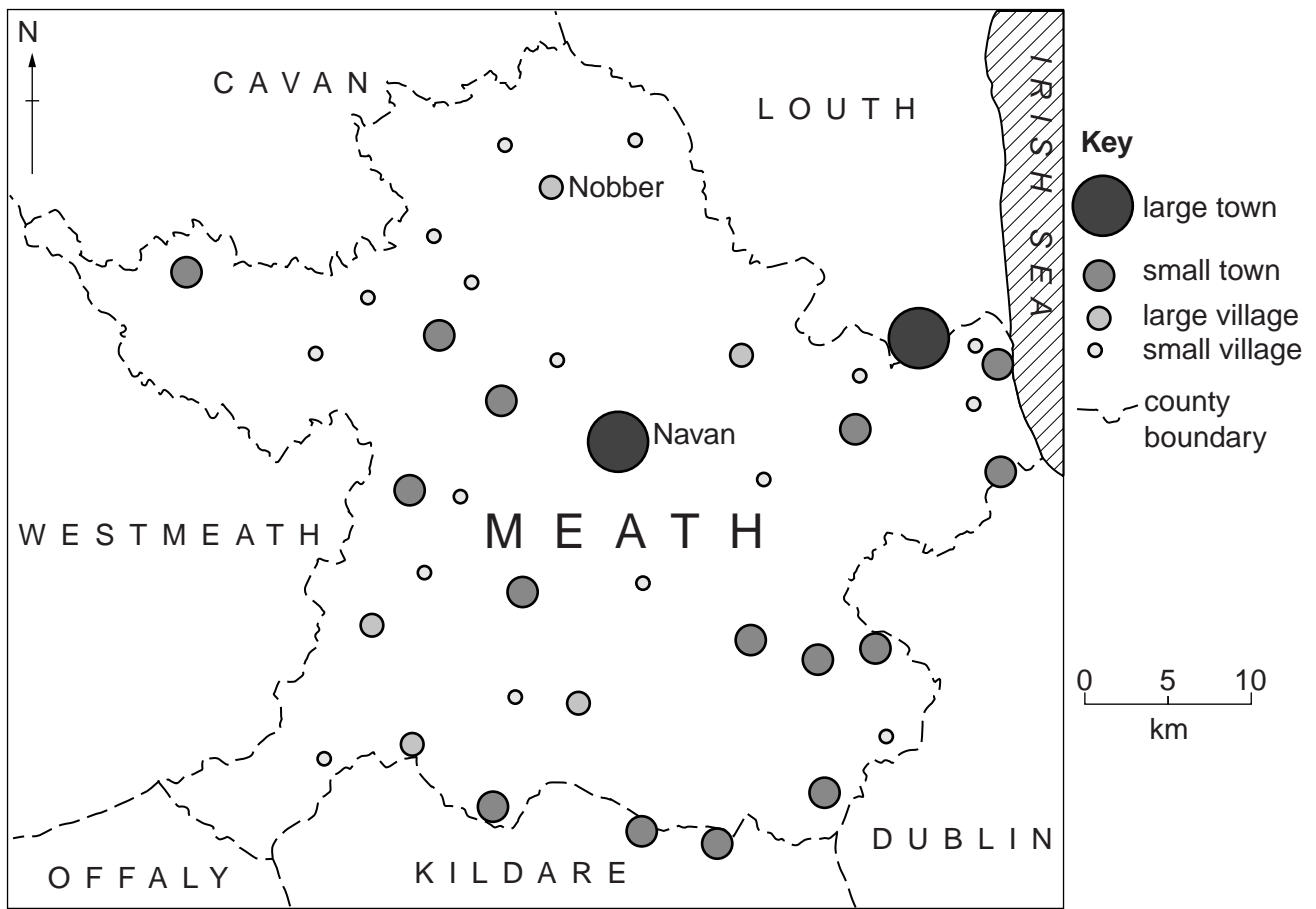


Fig. 2

(i) What is meant by *settlement hierarchy*?

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..... [1]

(ii) Describe the relationship between settlement size and number of settlements in Meath County. Use evidence from Fig. 2 to support your answer.

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..... [2]

(iii) Describe **three** likely differences between the services in Navan and Nobber.

- 1
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- 2
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- 3
- [3]

(iv) Dublin is the capital city of the Republic of Ireland. Suggest reasons why many people who live in Meath County will travel regularly to Dublin, even though it is 50 kilometres away.

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- [4]

(b) Study Fig. 3, which shows the advantages of the rural-urban fringe for economic development.

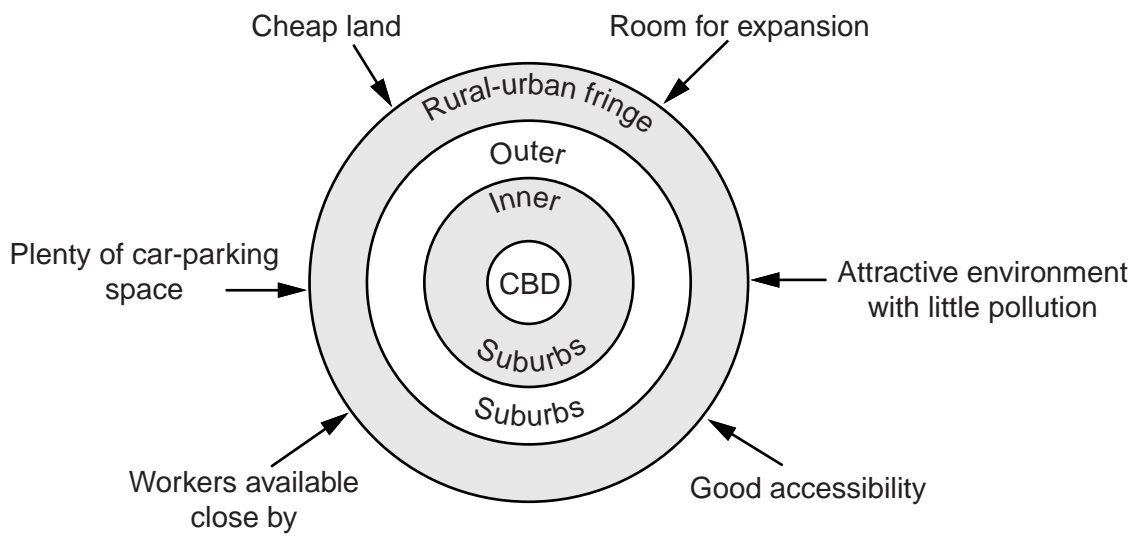


Fig. 3

(i) Choose **three** of the advantages shown in Fig. 3. For each of the advantages chosen, explain why it is important to a developer who is building an out-of-town shopping centre in the rural-urban fringe.

Advantage 1

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.....

Advantage 2

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Advantage 3

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..... [3]

(ii) Explain the likely impacts of a new out-of-town shopping centre on services in other parts of the urban area.

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..... [5]

(c) For a named example you have studied of a town or city in an MEDC, describe the environmental problems which have occurred in the rural-urban fringe as a result of urban sprawl.

Name of city

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[7]

[Total: 25 marks]

END OF QUESTION 2

QUESTION 3

- (a) Study Fig. 4A, a table of data collected at a school weather station in Southern Africa during a week in August.

Day	Maximum temperature (°C)	Minimum temperature (°C)	Relative humidity (%)	Air pressure (mb)	Wind direction	Wind speed (km per hour)
Sunday	10	5	74	1014	NW	2
Monday	13	7	98	992	NW	12
Tuesday	11	4	97	996	W	9
Wednesday	9	3	72	1004	S	4
Thursday	8	3	66	1012	SW	2
Friday	12	4	63	1018	NW	2
Saturday	10	6	59	1020	W	1

Fig. 4A

- (i) Which day had the highest range of temperature?

.....

[1]

- (ii) Using Fig. 4A, complete the graph below (Fig. 4B) which shows maximum and minimum temperatures.

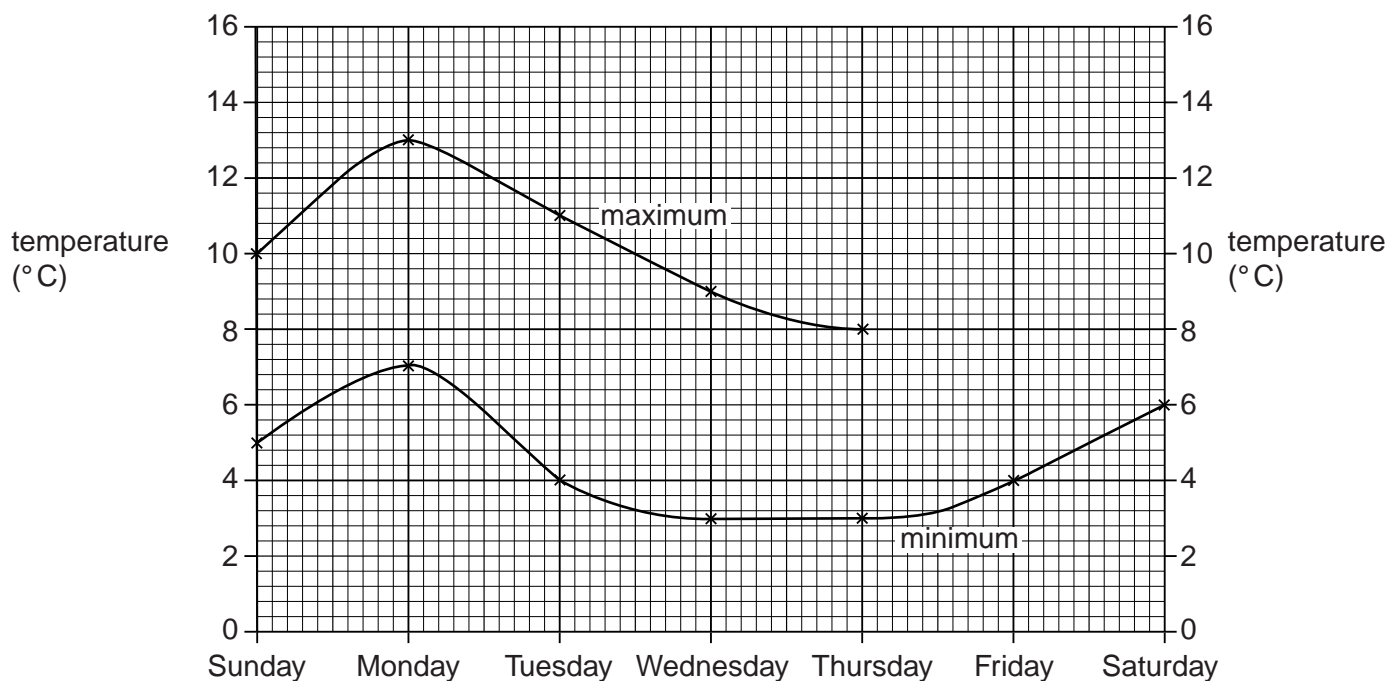


Fig. 4B

[2]

(iii) Identify the weather characteristic shown in Fig. 4A which is measured by each of the following instruments:

Wind vane

Barometer

Wet and dry bulb thermometer (hygrometer) [3]

(iv) Describe how information about the amount of precipitation (rainfall) can be collected.

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..... [4]

(b) Study Photographs D and E (Insert), which show different types of cloud.

(i) Describe **three** differences between the clouds shown in Photographs D and E.

- 1
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- 2
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- 3
- [3]

(ii) Explain why more cloud forms in tropical rainforest areas than in tropical deserts.

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QUESTION 4

(a) Study Fig. 5, which shows major plates and zones of tectonic activity.

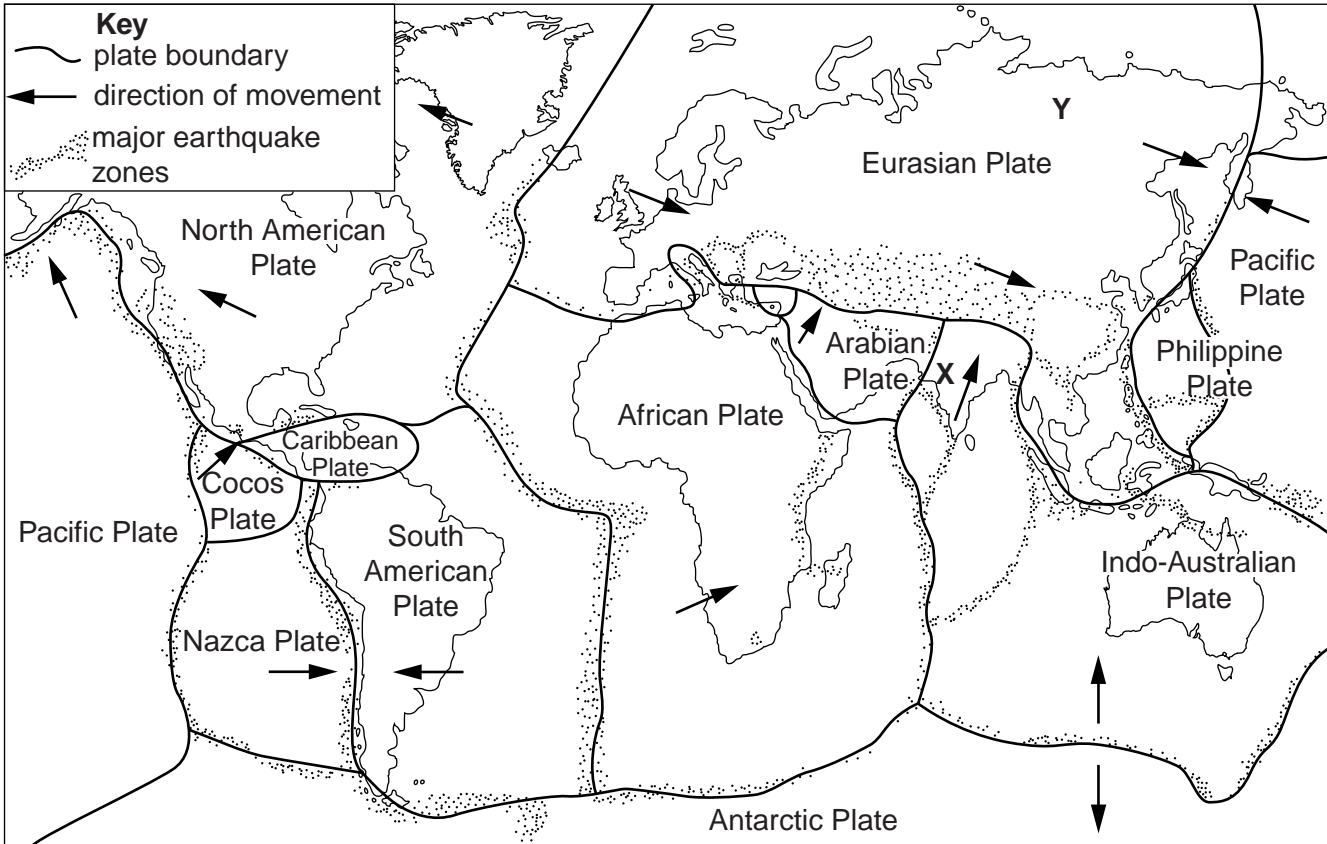


Fig. 5

(i) What is a *tectonic plate*?

.....
 [1]

(ii) On Fig. 5 label the following:

- a constructive (divergent) boundary (label with "P");
 - a destructive (convergent) boundary (label with "Q").
- [2]

(iii) Explain fully why major earthquakes are more likely to occur in the area marked X on Fig. 5 than in the area marked Y.

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 [3]

(iv) Explain why volcanic eruptions occur on destructive (convergent) plate boundaries.

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..... [4]

(b) Study Fig. 6, an article about a natural disaster.

3 Volcanic activity triggers a sudden release; gases rise to the surface.

4 Gas cloud blows across the land and kills or injures those who come into contact with it.

2 Gases collect in lake bed sediment for many years.

1 Hot magma releases gases.

- Hydrogen sulphide
- Carbon dioxide
- Carbon monoxide

LAKE NYOS

NOT TO SCALE

Site of gas release

CHAD

NIGERIA

Wum

● Bamenda

CAMEROON

○ Yaounde

CENTRAL AFRICAN REP.

EQ. GUINEA

GABON

D.R. CONGO

0 250 500 km

Many people died in their sleep when the volcanic Lake Nyos erupted on Thursday night, sending a cloud of poisonous gases into the air.

The official death toll rose yesterday to 1,534, although military reports put the figure as high as 2,000.

A further 300 victims were being treated in hospital for internal burns after breathing in toxic fumes.

Fig. 6

(i) Describe the processes which caused the disaster shown in Fig. 6.

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..... [3]

(ii) Explain why people continue to live in areas of volcanic activity.

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QUESTION 5

(a) Study Fig. 7, which shows information about the main export earnings of Switzerland (an MEDC) in 2011.

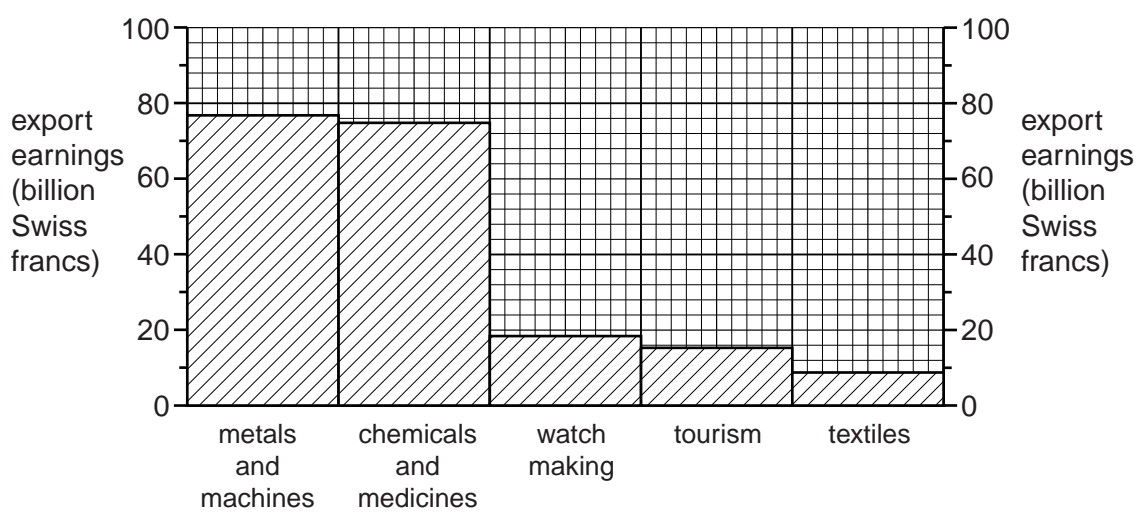


Fig. 7

(i) How much was earned from tourism in Switzerland in 2011?
 billion Swiss Francs [1]

(ii) Describe **two** ways in which tourism can earn money for a country.
 1

 2
 [2]

(iii) Give **three** different ways in which tourism creates employment.
 1

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 [3]

(iv) Explain why tourism leads to the development of a country's infrastructure.

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(b) Study Fig. 8, which shows an area in Switzerland which attracts many tourists.

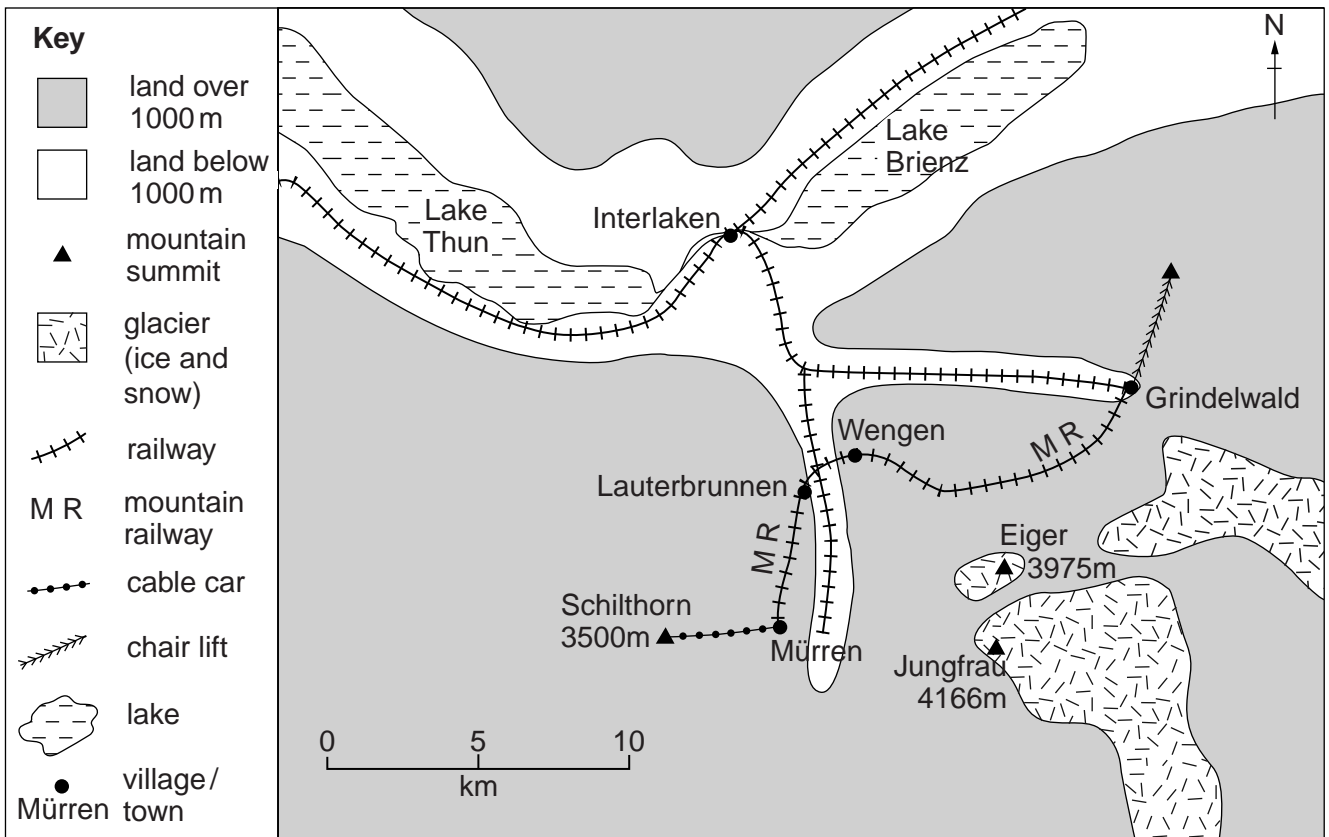


Fig. 8

(i) Identify **three** different natural (physical) attractions for tourists in the area shown by Fig. 8.

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3 [3]

(ii) Suggest how tourism can cause problems for residents of towns like Interlaken.

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(c) For a named country or area you have studied, describe the impacts of tourism on the natural environment.

Name of area or country

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[Total: 25 marks]

END OF QUESTION 5

QUESTION 6

- (a) Study Fig. 9, which shows access to safe water and energy consumption per person in selected countries.

Country	Population with access to safe water (percentage)	Energy consumption per person (kgs oil equivalent)
Bolivia (LEDC)	83	480
Canada (MEDC)	100	7100
Ecuador (LEDC)	85	726
Mexico (LEDC)	77	1437
Nicaragua (LEDC)	79	250
USA (MEDC)	100	6700

Fig. 9

- (i) Identify the country shown on Fig. 9 with the lowest percentage of the population with access to safe water.

..... [1]

- (ii) Compare the energy consumption per person in Canada and Ecuador. You should use statistics in your answer.

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 [2]

- (iii) Explain why more energy is used per person in MEDCs than in LEDCs.

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 [3]

(iv) Suggest reasons why it is important for LEDCs to improve water supplies.

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(b) Study Fig. 10, which shows information about water supply in Southern California (USA) in 1990 and 2020 (estimated).

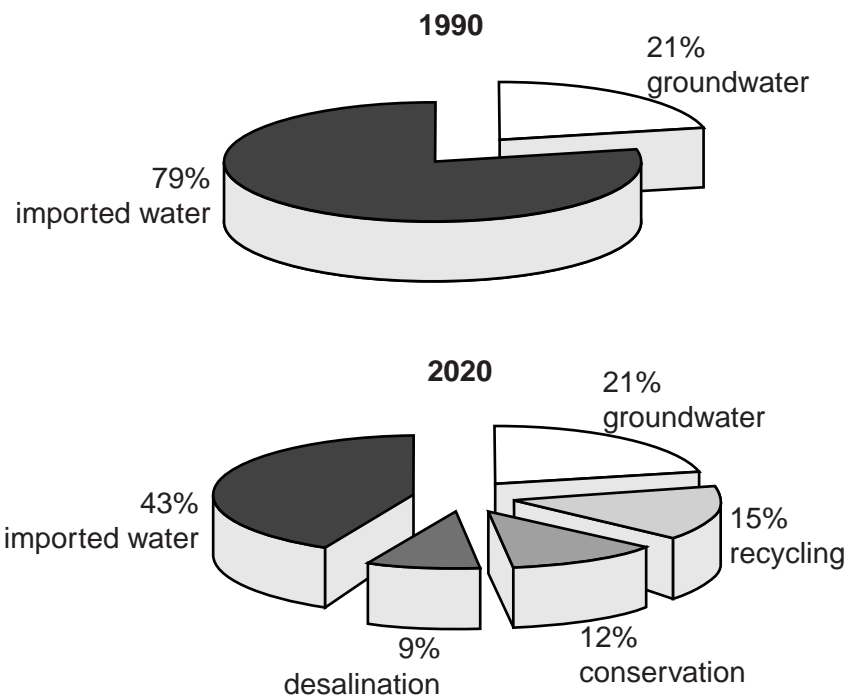


Fig. 10

(i) What is meant by the following methods of water supply?

Use of groundwater

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Desalination

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Recycling

..... [3]

(ii) The conservation of water is becoming increasingly important. Describe methods which can be used to conserve water.

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(c) For a named area or country you have studied, describe how it obtains its energy.

Name of area or country

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[7]

[Total: 25 marks]

END OF QUESTION 6

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Copyright Acknowledgements:

Question 1 Fig. 1B	© http://sgrhs.unisa.edu.au/student/prep_rural_prac/1-major_issues.htm
Question 1 Photographs A–C	S. Sibley © UCLES.
Question 2 Fig. 2	http://www.meath.ie/CountyCouncil/Publications/PlanningandDevelopmentPublications/CountyMeathDevelopmentPlan2007-2013-Adopted/
Question 2 Fig. 3	http://igeogers.weebly.com/changing-hic-cities.html
Question 3 Photographs D–E	S. Sibley © UCLES.
Question 6 Fig. 10	http://www.westbasin.org/water-reliability-2020/planning/water-reliability

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