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0460/23

May/June 2017

1 hour 30 minutes

Additional Materials: Ruler
Plain paper
Calculator

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

READ THESE INSTRUCTIONS FIRST

Write in dark blue or black pen.

Do not use staples, paper clips, glue or correction fluid.

DO **NOT** WRITE IN ANY BARCODES.

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 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.

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 **15** printed pages, **1** blank page and **1** Insert.

- 1 Study the map extract, which is for Lillehammer, Norway. The scale is 1:50 000. Fig. 1 shows some of the features in the south-west part of the map extract.

(a) Study Fig. 1 and the map extract and answer the questions below.

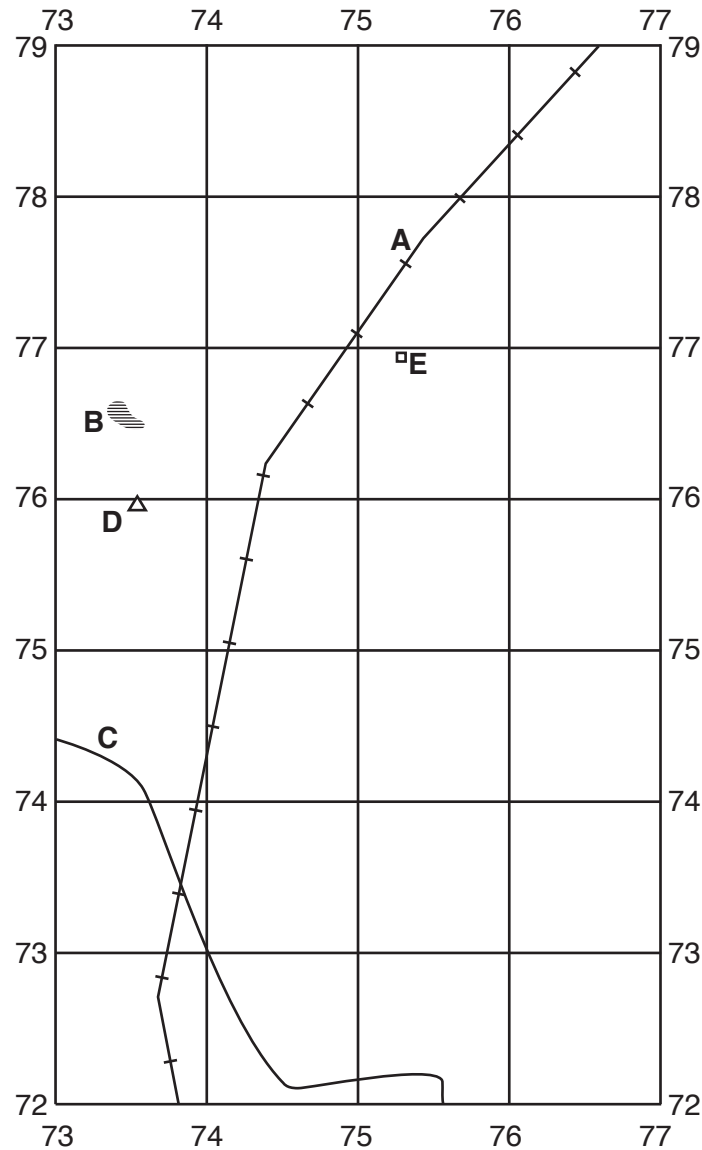


Fig. 1

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 height of the land at **D**;

..... metres [1]

(v) the type of building at **E**.

.....[1]

(b) State **three** pieces of evidence that tourism is a main function of Vingnes.

1

2

3[3]

(c) Describe the natural features of the lake Mjøsa between northing 78 and the southern edge of the map.

.....

[4]

(d) Identify the feature at grid reference 815818.

.....[1]

(e) Describe the distribution of the main settlements on the map extract.

.....

[3]

- (f) Fig. 2 shows northing 73 between the west shore of lake Mjøsa and the western edge of the map, divided into four sections, A, B, C and D.

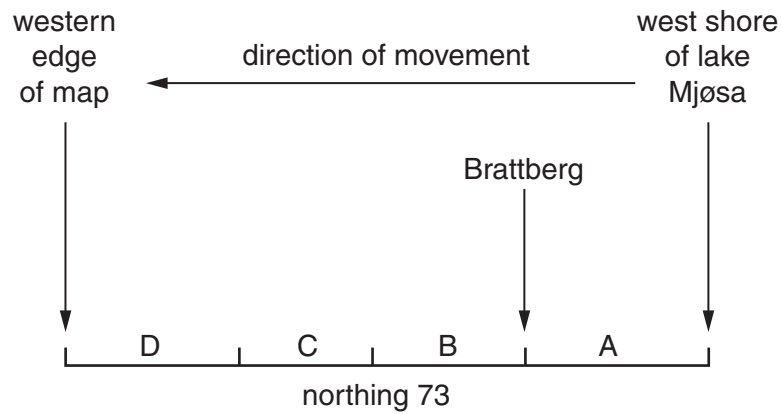


Fig. 2

The descriptions of relief are:

gentle downhill slope, steep downhill slope, gentle uphill slope, steep uphill slope,
deep valley, shallow valley

Complete the table to describe the relief along the four sections of grid line 73, **starting from the lake, moving from east to west**. Choose one description from the list above for each section.

Section	Description
A	
B	
C	
D	

[4]

[Total: 20 marks]

- 2 Study Photographs A, B and C (Insert), which show different urban land use zones of Vancouver, Canada.

(a) (i) Identify the land use zone shown in Photograph A.

.....[1]

(ii) Give **two** pieces of evidence shown in Photograph A to support your answer to (a)(i).

1

.....

2

.....[2]

(b) State the evidence in Photograph B that it is a zone of mixed land use.

.....

.....

.....

.....[2]

(c) Explain why the area to the right of the river in Photograph C is a good location for industrial land use.

.....

.....

.....

.....

.....

.....[3]

[Total: 8 marks]

3 Study Fig. 3, which shows a Stevenson screen and factors that influence its design.

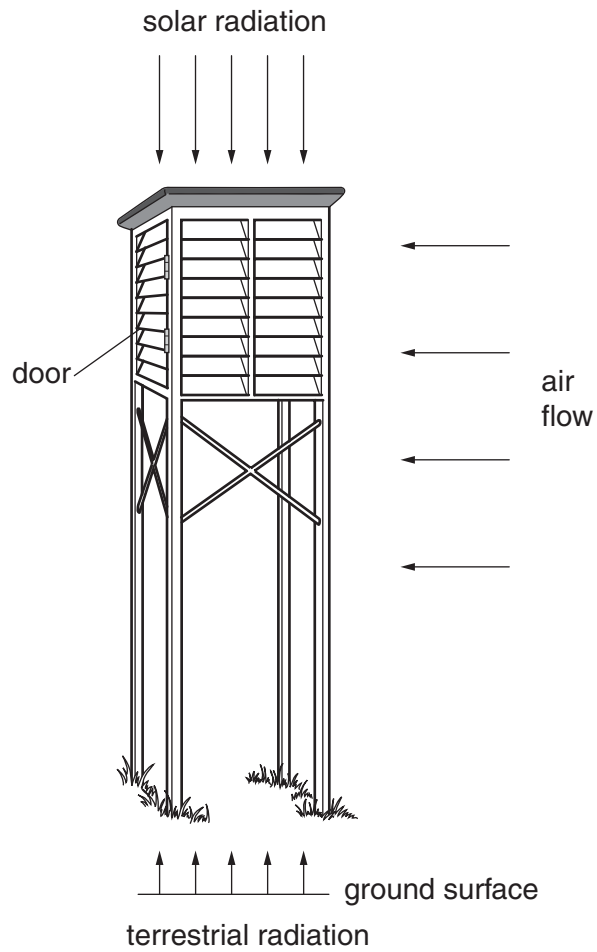


Fig. 3

- (a) Use the information in Fig. 3 to complete the table by adding **one** reason for each feature of the Stevenson screen.

Feature	Reason
painted white	
louvres or slats	
double roof	
door faces north in the northern hemisphere and south in the southern hemisphere	
raised to a standard height above the ground	

[5]

- (b) Maximum and minimum thermometers in the Stevenson screen recorded the temperatures shown in Table 1.

Table 1

	Monday	Tuesday	Wednesday	Thursday	Friday
maximum temperature (°C)	21	22	23	21	19
minimum temperature (°C)	15	14	12	14	15

- (i) Use the information in Table 1 to complete the table below.

the daily temperature range on Monday	°C
the mean temperature on Tuesday	°C

[2]

- (ii) Suggest which day had the least cloud.

.....[1]

[Total: 8 marks]

- 4 Study Fig. 4, which shows the climate of a weather station located at the Equator in the Amazon Basin.

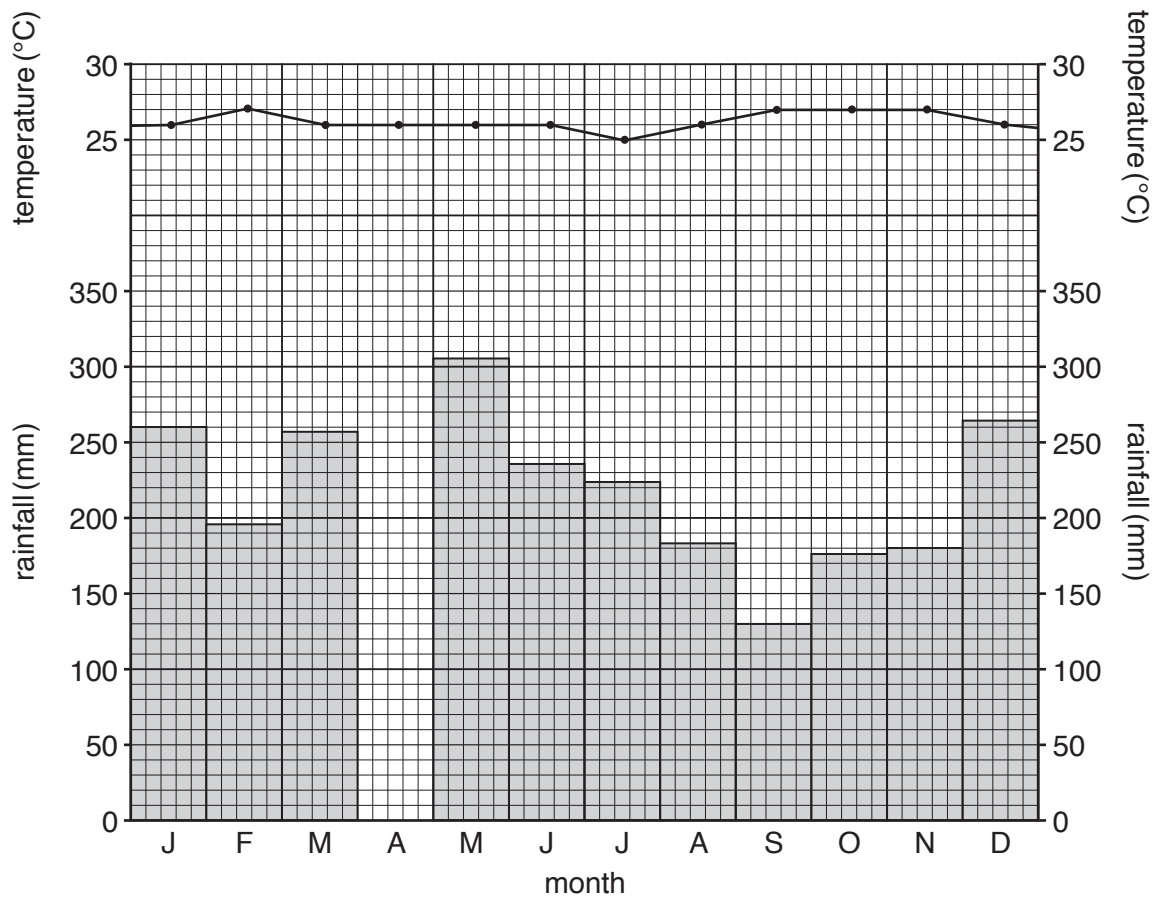


Fig. 4

- (a) (i) **Complete the graph (Fig. 4)** to show that rainfall in April is 270 mm. [1]
- (ii) State the rainfall for the month of September.
- mm [1]
- (iii) This climate is described as being *wet all year*. Use evidence from the graph to support this.

.....

.....

.....

.....

.....

..... [3]

- (iv) Suggest **two** possible reasons why the weather station has a very small annual range of temperature.

1

.....

2

.....[2]

- (b) State the number of months during a year in which vegetation will be able to grow in places with the climate shown in Fig. 4.

.....[1]

[Total: 8 marks]

5 (a) Name the type of renewable source of electricity generation that:

(i) comes from underground;

.....[1]

(ii) is made from crops.

.....[1]

(b) Study Fig. 5, which shows the percentage of electricity generated in the UK from low carbon sources (nuclear and renewables) from the start of 2011 to the end of 2014.

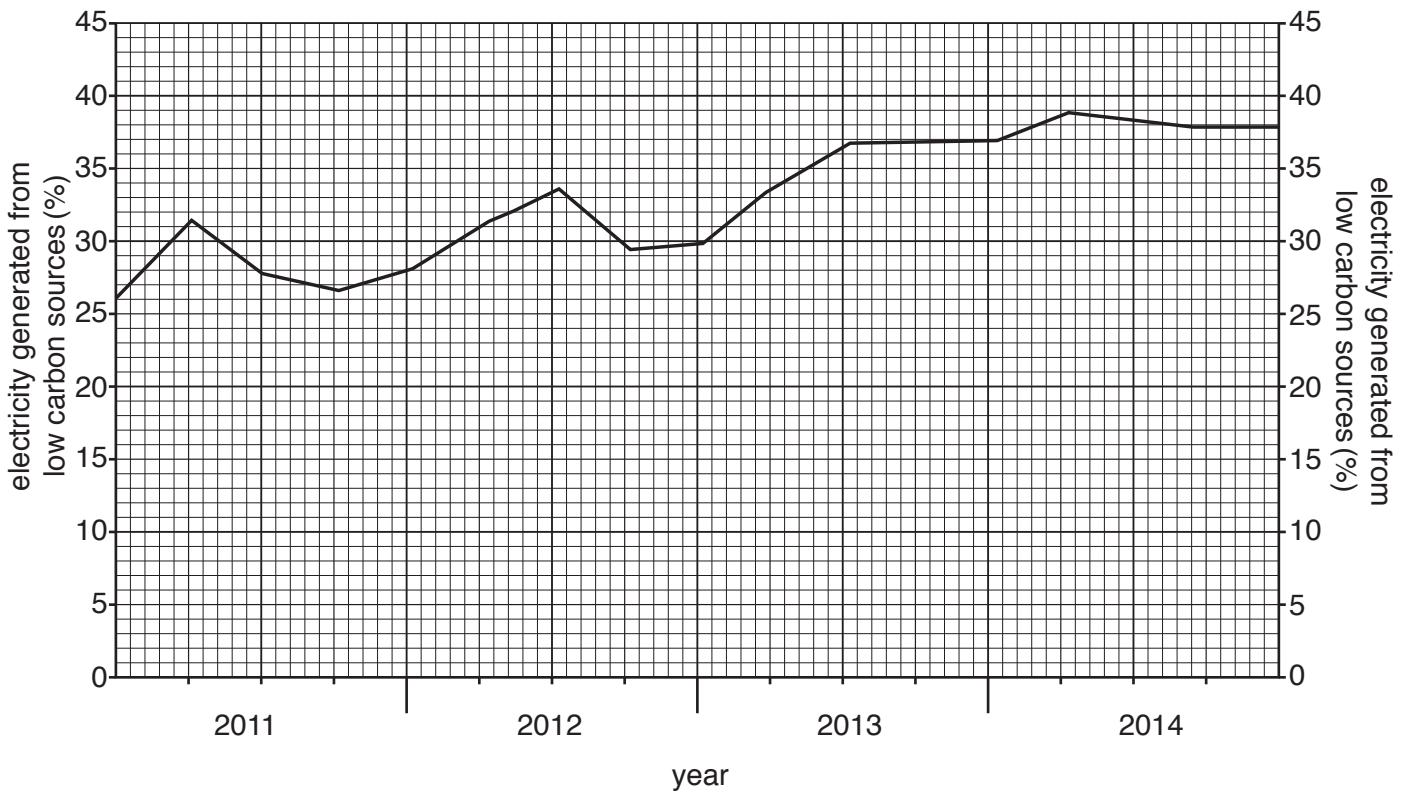


Fig. 5

(i) Describe the main changes over the period shown in Fig. 5 in the percentage of electricity generated in the UK from low carbon sources.

.....

.....

.....

.....

.....

.....[3]

- (ii) Suggest possible reasons why the percentage of electricity generated from renewables can reduce from time to time.

.....

.....

.....

.....

.....

.....[3]

[Total: 8 marks]

6 Study Fig. 6, which shows the age structures of selected countries.

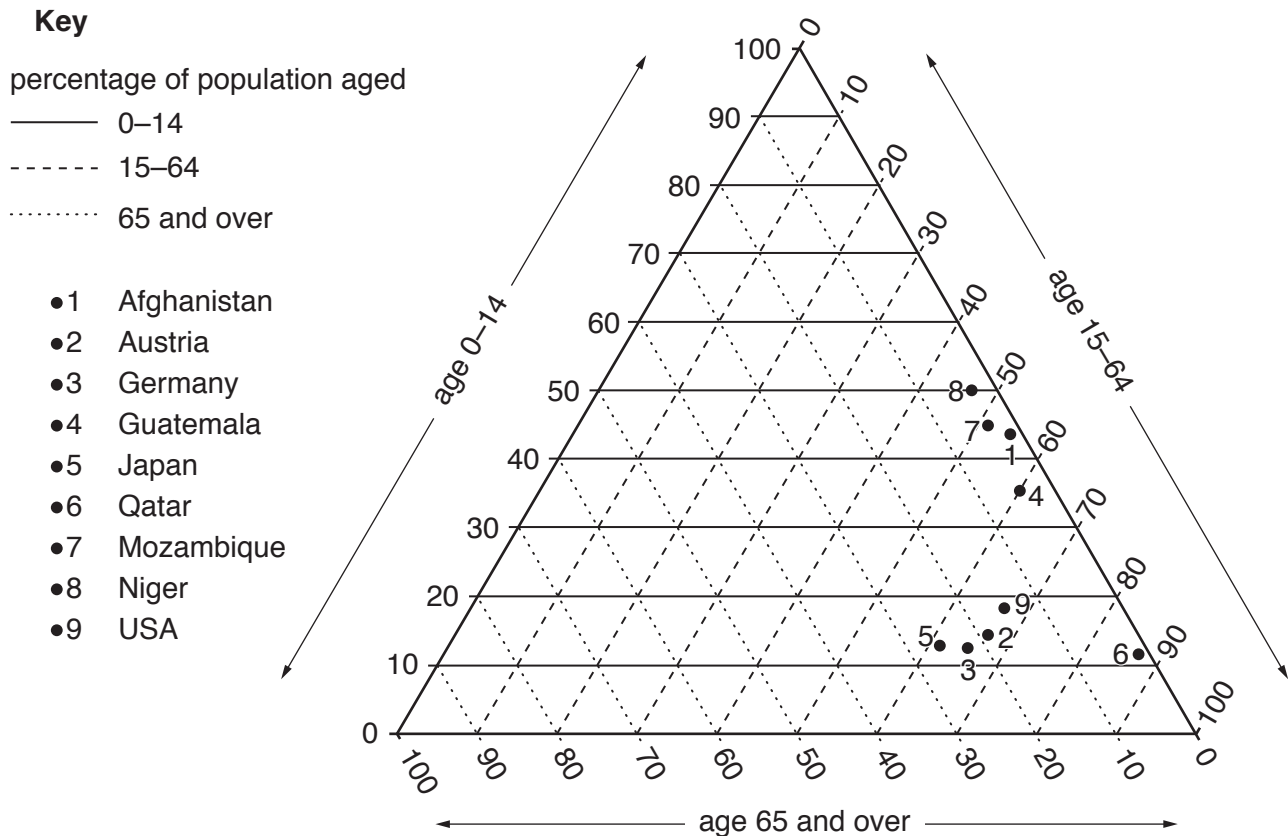


Fig. 6

(a) Table 2 shows the age structures for the world and for Qatar and Niger which have already been plotted on Fig. 6.

Table 2

	Percentage aged 0–14	Percentage aged 15–64	Percentage aged 65 and over
Qatar	12.5	86.5	1
Niger	50	47	3
world	26	66	8

(i) **Plot and label** the position of the world's age structure on Fig. 6. [2]

(ii) What percentage of Japan's population is aged 65 and over?

..... % [1]

(iii) State how one sector of Qatar's population structure differs from that of all the other countries shown on Fig. 6.

.....
 [1]

- (b) (i) Define the term *dependent population*.

.....
.....[1]

- (ii) Look at Niger's population structure in Table 2. Suggest why countries with age structures similar to this find it difficult to develop their economies.

.....
.....
.....
.....
.....[3]

[Total: 8 marks]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

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