



CANDIDATE
NAME

--

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

0460/21

May/June 2022

1 hour 30 minutes

You will need: Insert (enclosed)

1:25 000 survey map (enclosed)

Plain paper

Protractor

Ruler

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- If additional space is needed, you should use the lined pages at the end of this booklet; the question number or numbers must be clearly shown.

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [].
- The insert contains additional resources referred to in the questions.

This document has **16** pages. Any blank pages are indicated.

1 Study the map extract for Lochwinnoch, Scotland. The scale is 1:25 000.

(a) Fig. 1.1 shows some of the features in the west of the map extract. Study Fig. 1.1 and the map extract and answer the questions below.

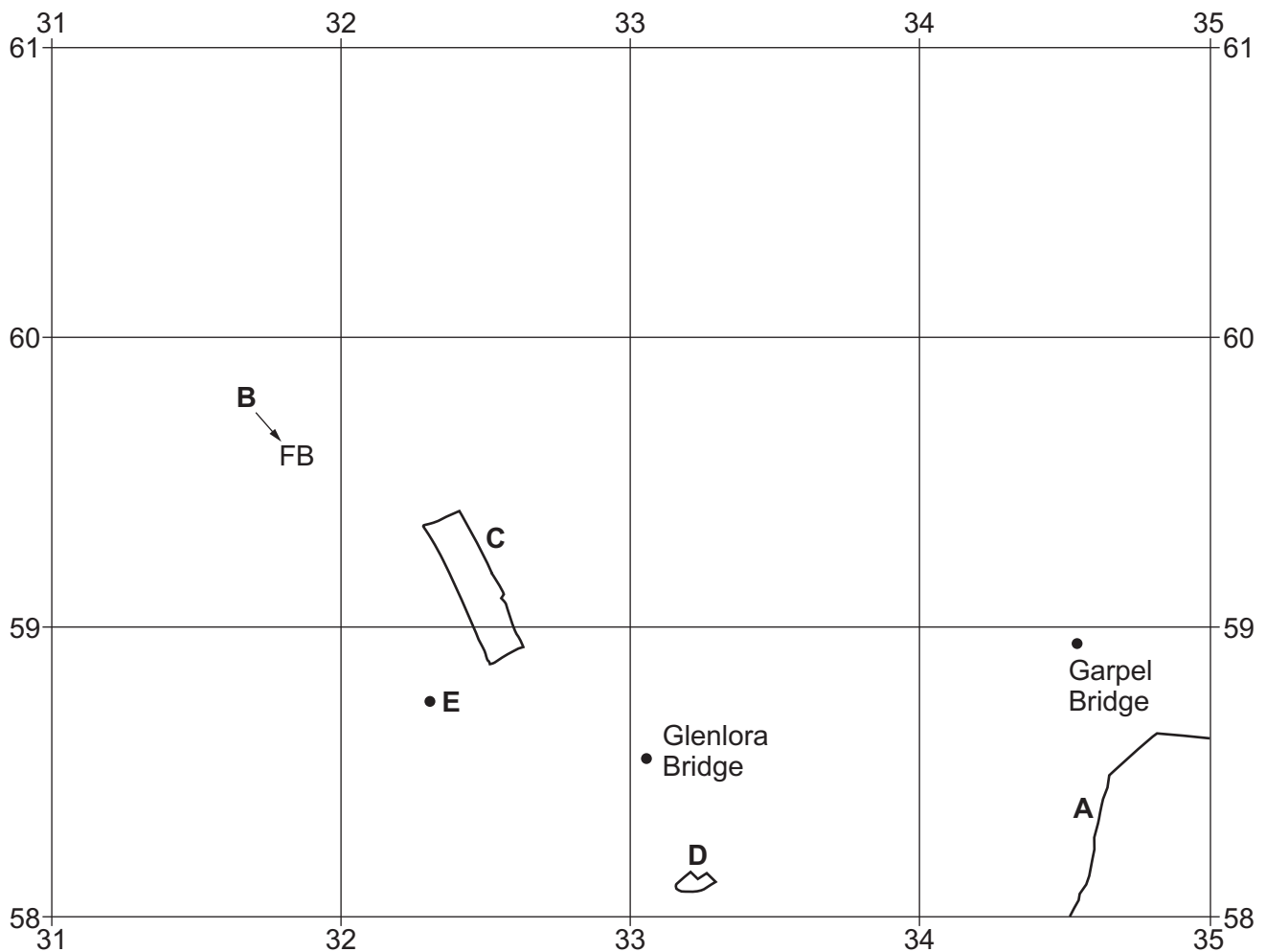


Fig. 1.1

Using the map extract, identify the following features shown in Fig. 1.1:

(i) feature **A**

..... [1]

(ii) feature **B**

..... [1]

(iii) the land use at **C**

..... [1]

(iv) the name of settlement **D**

..... [1]

(v) the height above sea level of the spot height (survey height) at **E**.

..... metres [1]

(b) Fig. 1.1 shows the locations of Glenlora Bridge and Garpel Bridge.

- (i) Using the map extract, measure how far it is along the road from Glenlora Bridge to Garpel Bridge.

..... metres [1]

- (ii) Measure the bearing from Glenlora Bridge to Garpel Bridge.

..... degrees [1]

(c) Using the map extract, describe the drainage in the area shown in Fig. 1.1.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(d) Fig. 1.2 is a cross-section along northing 615 from 380615 to 410615.

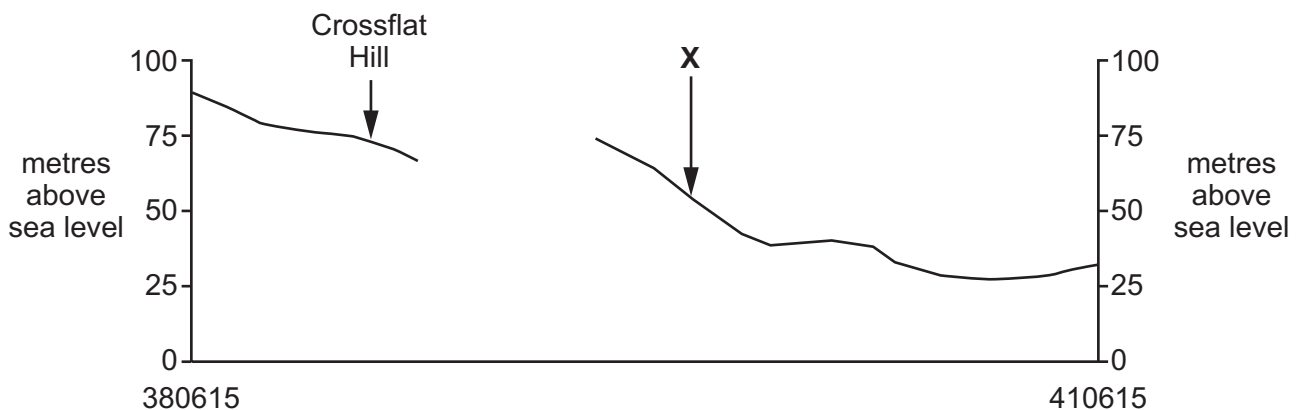


Fig. 1.2

- (i) Identify the feature at X.

..... [1]

- (ii) On Fig. 1.2, **use a labelled arrow** to show the position of the main road. [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**. [1]

- (e) Find the settlement of Howwood in the east of the map extract. Using map evidence suggest reasons for the growth of the settlement.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

[Total: 20]

2 Fig. 2.1 shows the change in population density in France from 2010 to 2020.

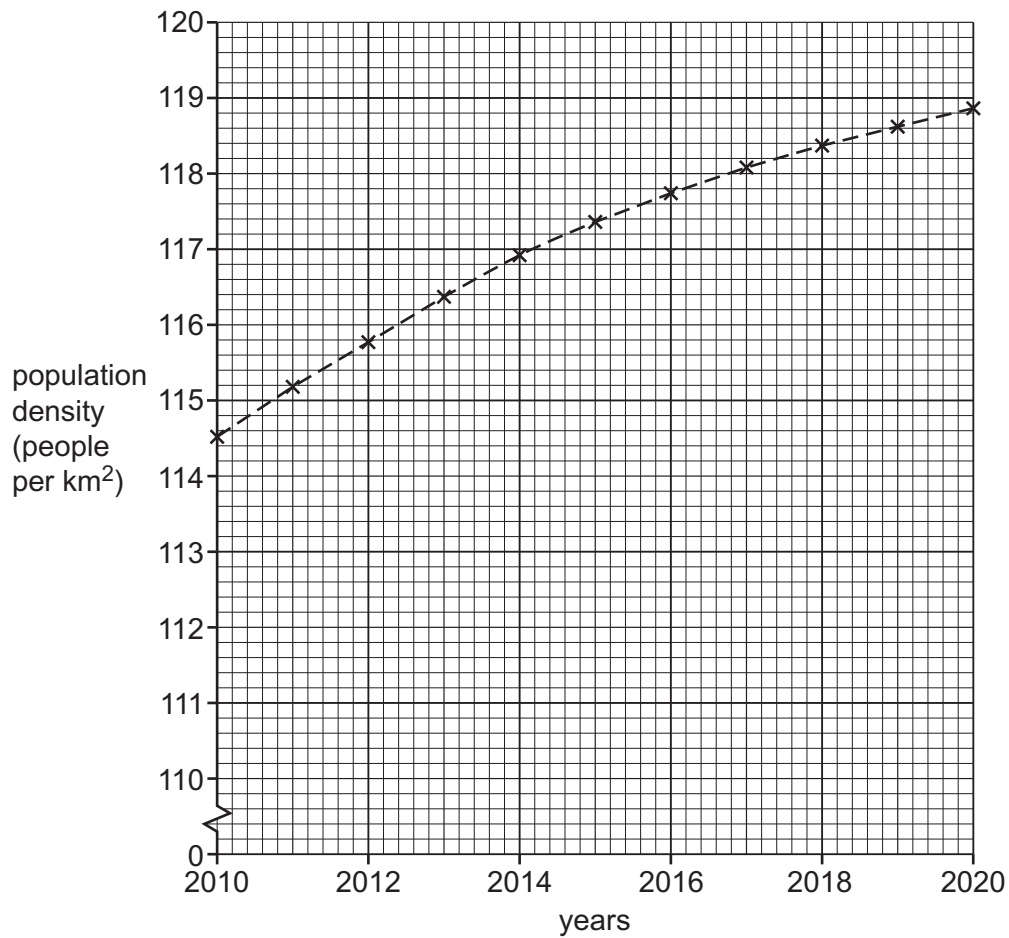


Fig. 2.1

(a) (i) Using Fig. 2.1, state the population density in France in 2018.

..... people per km² [1]

(ii) Using Fig. 2.1, describe the change in population density in France between 2010 and 2020.

.....

.....

.....

.....

.....

..... [3]

- (iii) Which one of the following could explain why the population density in France as shown in Fig. 2.1 is increasing? Tick (✓) **one** box below.

	tick (✓)
positive net migration	
negative net migration	
urban to rural migration	

[1]

- (b) Fig. 2.2 shows the population density of the five most densely populated regions in France in 2019.

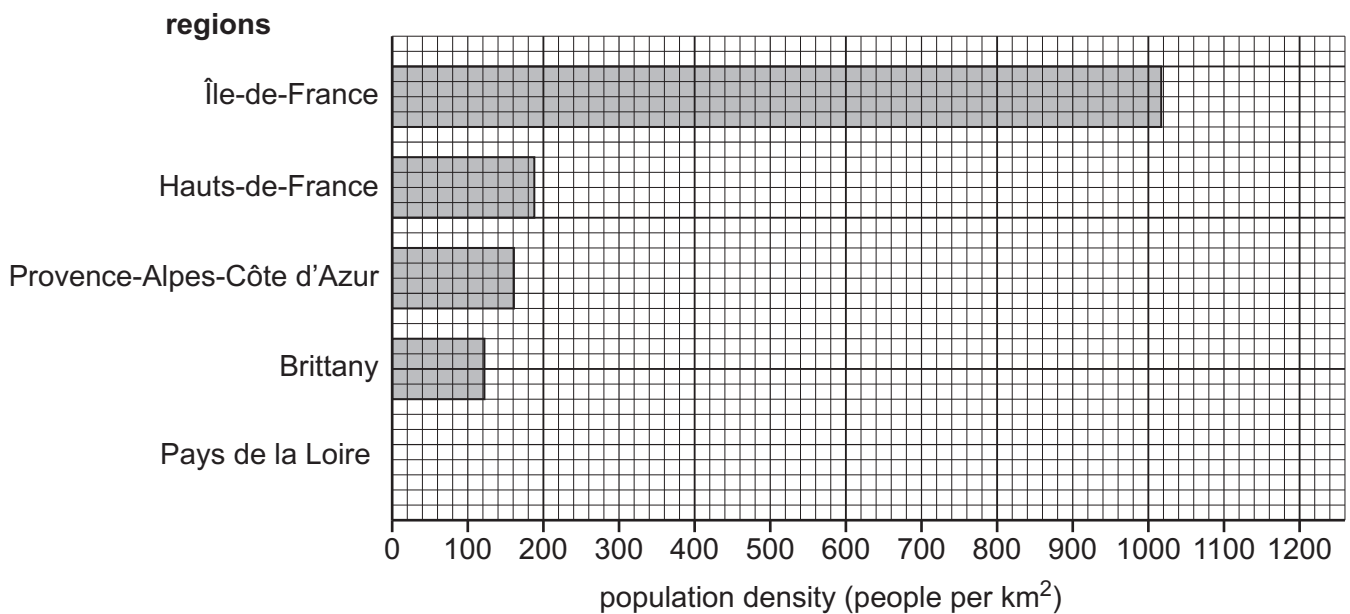


Fig. 2.2

- (i) **Complete Fig. 2.2** by adding the following information:

Pays de la Loire 120 people per km².

[1]

- (ii) The Pays de la Loire region has an area of 32082 km². Calculate the total population of this region. Show your working and answer in the box below.

Answer: people

[2]

[Total: 8]

- 3** Study Figs. 3.1 and 3.2 (Insert), which show how the clouds changed between 08:00 and 16:00 at one location.

(a) Describe how the clouds changed between 08:00 and 16:00.

.....

.....

.....

.....

.....

.....

.....

..... [4]

- (b)** Suggest how the weather changed between 08:00 and 16:00 at the location shown in Figs. 3.1 and 3.2 for the weather features shown below.

temperature

.....

sunlight

.....

precipitation

.....

humidity

..... [4]

[Total: 8]

4 Fig. 4.1 shows the locations of hot deserts in the world.

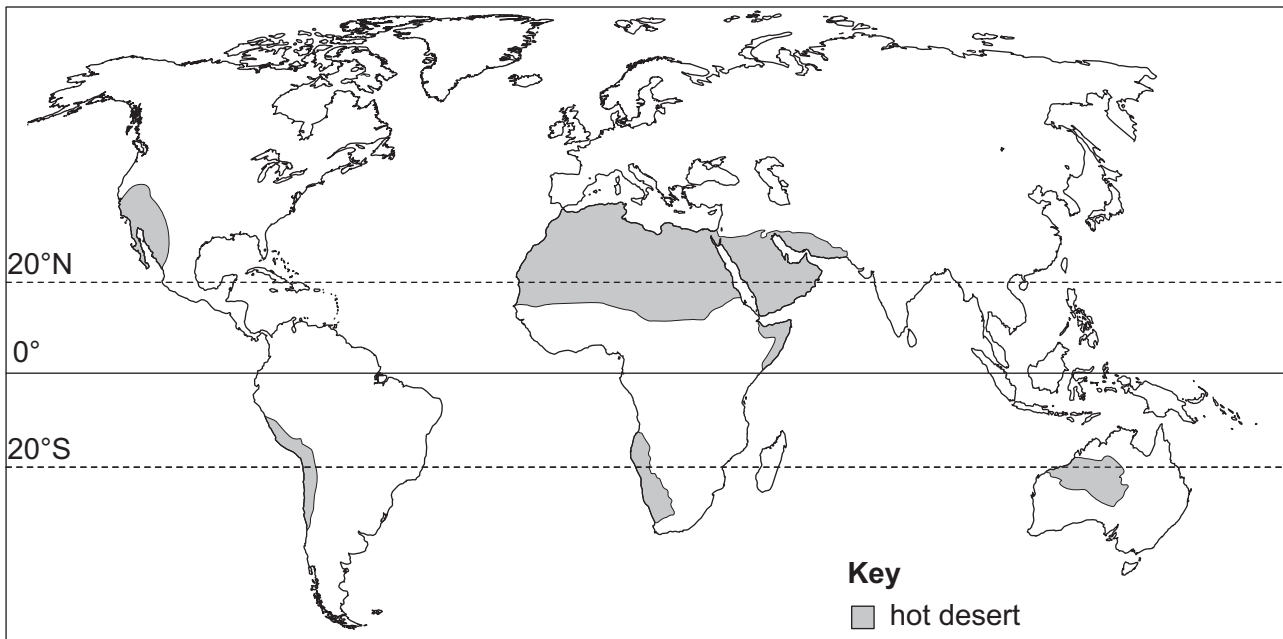


Fig. 4.1

(a) Describe the distribution of hot deserts shown in Fig. 4.1.

.....

.....

.....

.....

.....

..... [3]

(b) Fig. 4.2 shows the climate of a hot desert area.

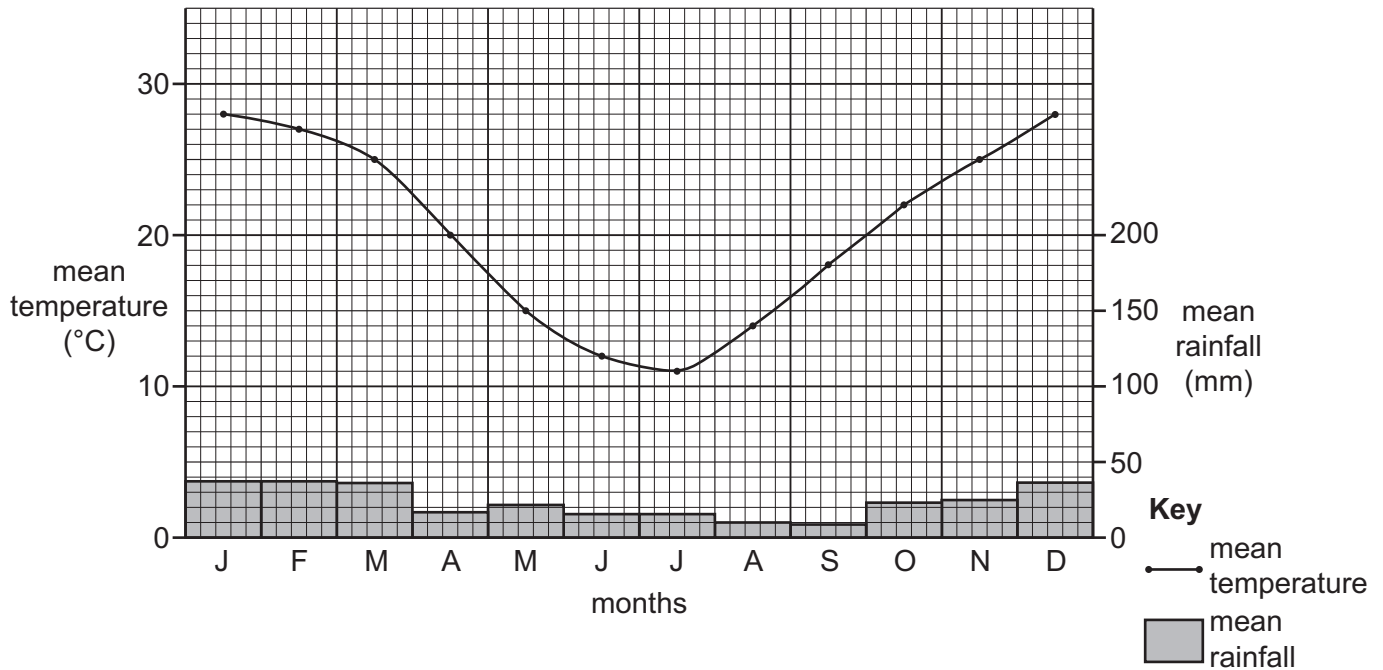


Fig. 4.2

(i) Using Fig. 4.2, state the annual range of temperature.

..... °C

[1]

(ii) Using Fig. 4.2, estimate the total annual rainfall. Tick (✓) **one** box below.

	tick (✓)
90 mm	
190 mm	
290 mm	
390 mm	

[1]

(iii) What evidence from Fig. 4.2 suggests that this place is in the southern hemisphere?

.....
 [1]

(c) Describe **two** different ways in which plants adapt to a hot desert climate.

- 1
-
- 2
- [2]

[Total: 8]

5 Fig. 5.1 shows the three largest exports for four continents.

Asia	share of global market (%)	export value US \$ (billions)
electronics	86	540
phones	75	424
processed oil	50	421

Europe	share of global market (%)	export value US \$ (billions)
cars	53	404
medicine	81	266
processed oil	38	248

South America	share of global market (%)	export value US \$ (billions)
cars	19	142
crude oil	11	97
processed oil	14	92

Africa	share of global market (%)	export value US \$ (billions)
crude oil	14	116
gold	8	26
petroleum gases	9	25

Fig. 5.1

(a) Using Fig. 5.1, identify the following:

(i) Africa's most important export

..... [1]

(ii) the export from Asia which has the highest global market share

..... [1]

(iii) the total value of South America's top three exports.

..... US \$ [1]

- (b) Using Fig. 5.1, compare the exports of Europe and Africa. Do **not** use statistics in your answer.

.....

.....

.....

.....

.....

..... [3]

- (c) Asia earns a large amount of money from its exports. State **two** different ways this might benefit the development of countries in Asia.

1

.....

2

..... [2]

[Total: 8]

6 Fig. 6.1 (Insert) shows the location of high technology industries on a science park in England.

(a) State an example of a high technology product.

..... [1]

(b) (i) Describe the industrial units shown at **A** on Fig. 6.1.

.....

 [2]

(ii) Using Fig. 6.1, suggest **two** reasons why this area was chosen for the location of high technology industries.

1

 2
 [2]

(c) Explain why transport costs are **not** the most important factor when locating high technology industry.

.....

 [3]

[Total: 8]

[illegible]

BLANK PAGE

The boundaries and names shown, the designations used and the presentation of material on any maps contained in this question paper/insert do not imply official endorsement or acceptance by Cambridge Assessment International Education concerning the legal status of any country, territory, or area or any of its authorities, or of the delimitation of its frontiers or boundaries.

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.