



CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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0460/23

May/June 2020

1 hour 30 minutes

You must answer on the question paper.

You will need:

Insert (enclosed)	Plain paper
1:50 000 survey map (enclosed)	Protractor
Calculator	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 **20** pages. Blank pages are indicated.

1 Study the map extract for Esneux, Belgium. The scale is 1:50 000.

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

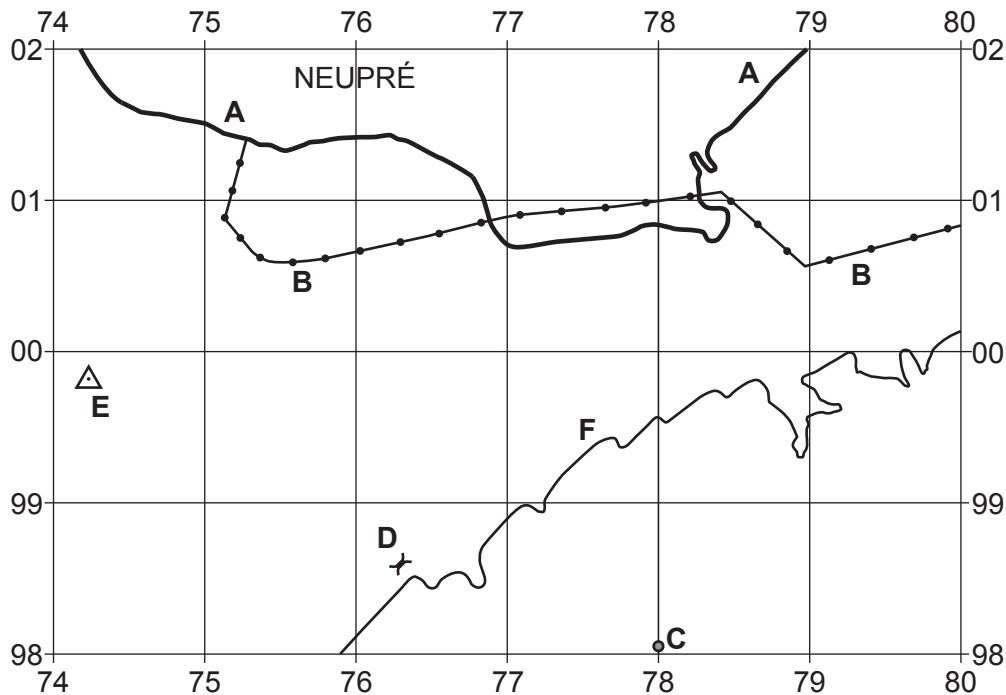


Fig. 1.1

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

(i) feature A

..... [1]

(ii) feature B

..... [1]

(iii) feature C

..... [1]

(iv) feature D

..... [1]

(v) the height above sea level of the geodetic (trigonometric) point at E

..... metres [1]

(vi) the height above sea level of the contour at F

..... metres [1]

(b) Find the small settlements at Tavier and Hody in the south west of the map extract. Both settlements have a church.

(i) What is the straight-line distance from the church at Tavier to the church at Hody? Give your answer in metres.

..... metres [1]

(ii) What is the compass direction **from** the church at Tavier **to** the church at Hody?

..... [1]

(iii) Measure the bearing **from** the church at Tavier **to** the church at Hody.

..... degrees [1]

(iv) Give the six-figure grid reference of the church at Tavier.

..... [1]

(c) Fig. 1.2 is a cross section along northing 00 from 810000 to 860000.

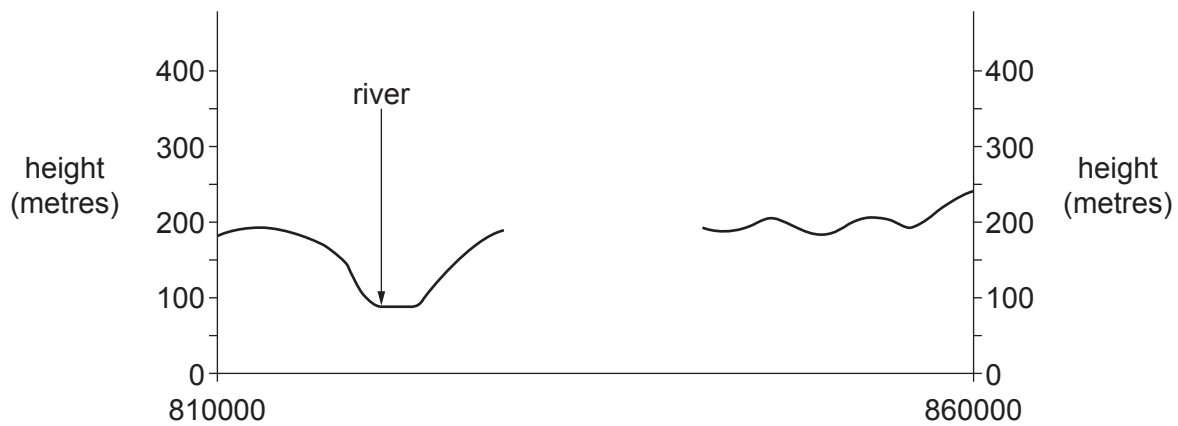


Fig. 1.2

(i) In Fig. 1.2, **use labelled arrows to show** the position of:

- the N633 road
 - the railway
- [2]

(ii) The cross section shown in Fig. 1.2 is incomplete. Using information from the map extract, draw a line in Fig. 1.2 to **complete the cross section**. [1]

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

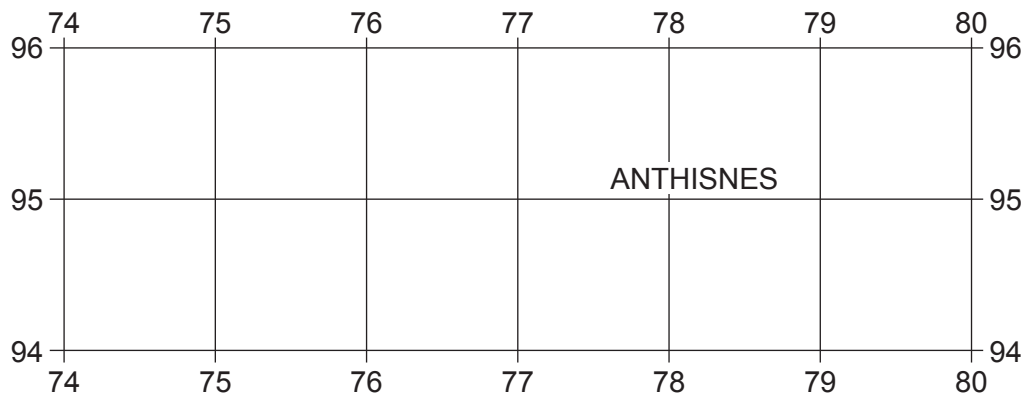


Fig. 1.3

Which **three** of the following statements describe the relief and drainage of the area shown in Fig. 1.3? Tick only **three** boxes below.

	Tick (✓)
It is an area of steep and gently sloping relief	
It is a mountainous area	
It is flat land	
The highest point is 250 m	
The area is all steeply sloping	
There is a flood plain	
The land is below 300 m	
There are few rivers	
There is a large river	
There is swamp or marsh	

[3]

- (e) Find the settlement of Douxflamme in the south east of the map extract. Describe the site and reasons for the growth of the settlement.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

[Total: 20]

- 2 Fig. 2.1 gives information about the population of Costa Rica, a country in Central America, in 1990 and 2015.

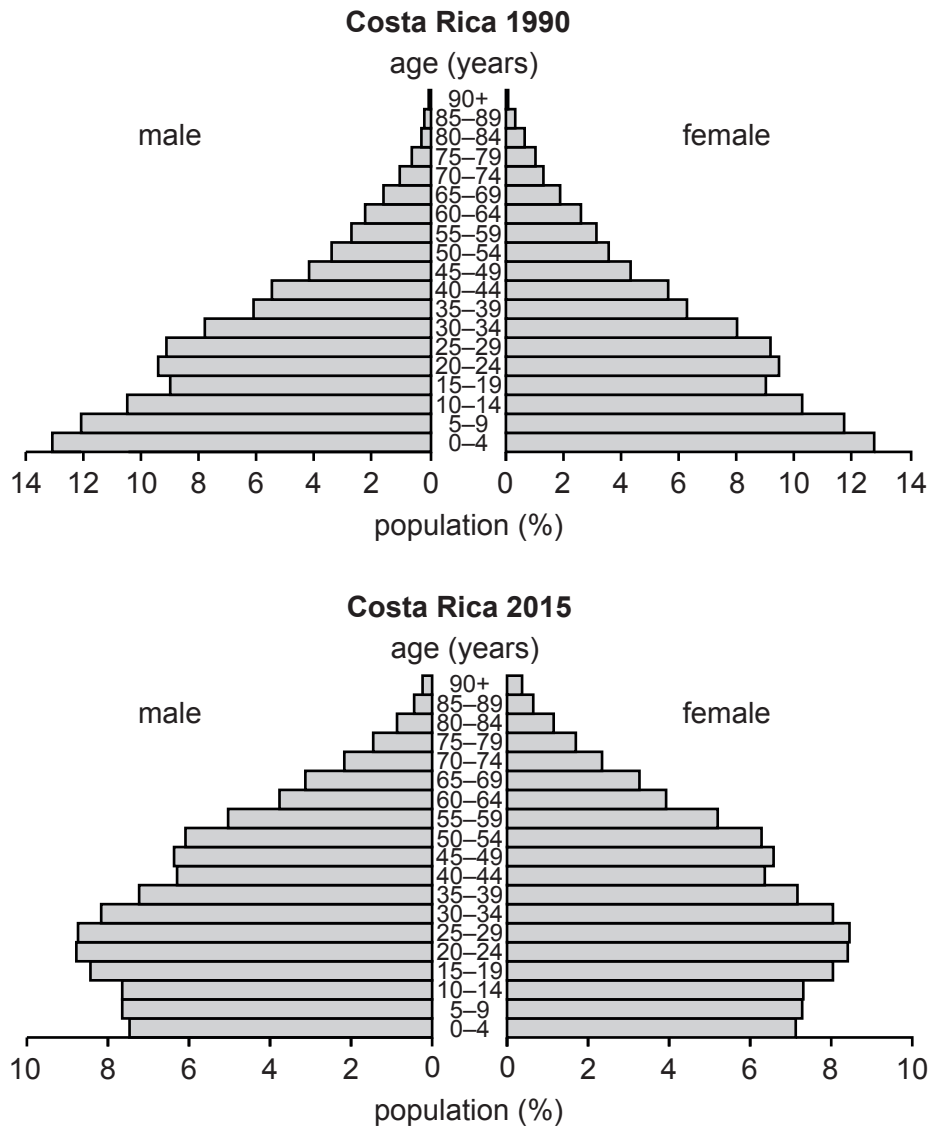


Fig. 2.1

(a) What percentage of the male population of Costa Rica in 1990 was:

- (i) aged 5–9? [1]
- (ii) aged 35–39? [1]

(b) Using Fig. 2.1, describe the changes between 1990 and 2015 in the percentage of people in Costa Rica aged:

(i) 0–14

..... [1]

(ii) 15–64

..... [1]

(iii) 65 and over

..... [1]

(c) Suggest **two** effects on Costa Rica of the changes you have described in (b).

1

.....

2

..... [2]

(d) Fig. 2.2 is a different population pyramid for Costa Rica in 2015.

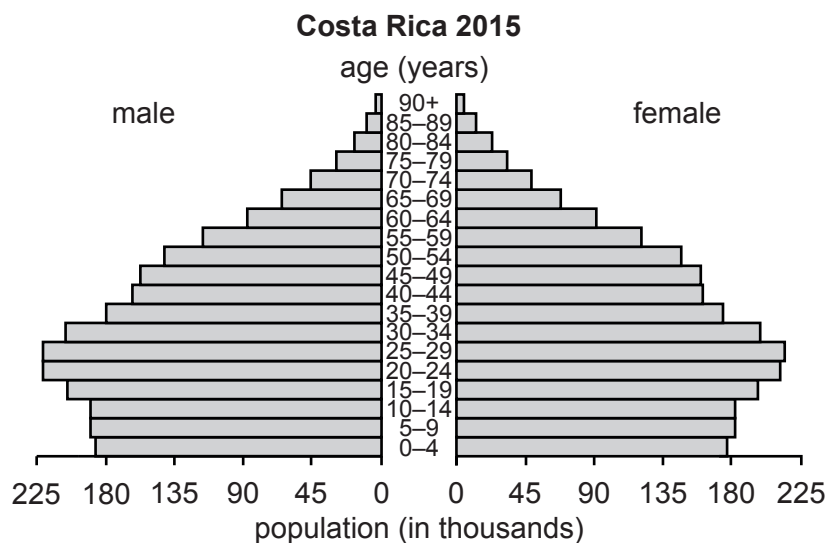


Fig. 2.2

What information is shown in Fig. 2.2 but not in Fig. 2.1?

.....

..... [1]

[Total: 8]

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3 (a) Fig. 3.1 (Insert) shows a weather station in South Africa.

(i) Name the box at **A**.

..... [1]

(ii) What is measured by the instruments at **B**?

..... [1]

(iii) What is measured by the instrument at **C**?

..... [1]

(iv) Suggest the reason for the cable at **D**.

.....
 [1]

(b) Clouds are observed and described, but not measured by instruments. Fig. 3.2 (Insert) shows clouds in Kazakhstan.

Describe the clouds shown at **X** and **Y** in Fig. 3.2.

Clouds at **X**

.....

Clouds at **Y**

.....

 [4]

[Total: 8]

- 4 (a) In 2017, 36% of Germany's electricity was generated from renewable energy sources and 64% from non-renewable sources and nuclear power. **Plot this information** in Fig. 4.1 and **complete the key**.

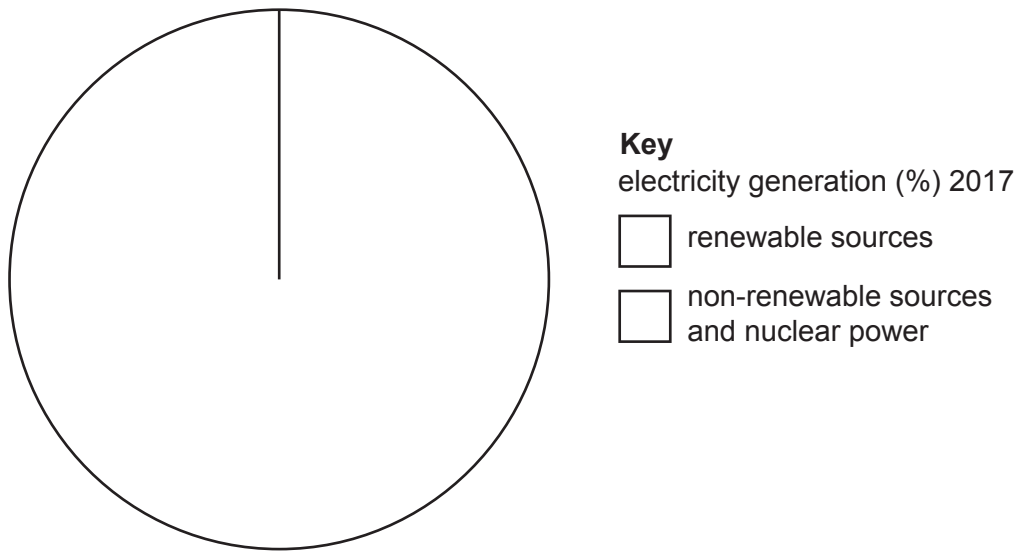


Fig. 4.1

[3]

- (b) Table 4.1 shows electricity generation in Germany for the whole of 2017 and for one week in that year. The figures show the percentage of electricity generated from each source.

Table 4.1

Germany: electricity generation (%)

		Whole of 2017		One week in 2017	
Renewable sources	Biomass	9	36	9	50
	Wind	19		29	
	Solar	5		9	
	Hydro	3		3	
Non-renewable sources	Coal	46	64	37	50
	Gas	5		4	
Nuclear power		13		9	
Total (%)		100	100	100	100

Using evidence from Table 4.1, suggest possible reasons why the percentage of electricity generated from renewable sources was greater for the week shown than for the whole year.

.....

.....

.....

.....

..... [2]

(c) Describe the advantages of using nuclear power to generate electricity.

.....

.....

.....

.....

.....

.....

..... [3]

[Total: 8]

5 Fig. 5.1 (Insert) shows Teide, an active volcano in the Canary Islands.

(a) Describe the features of Teide shown in Fig. 5.1.

[5]

(b) Give **three** opportunities that volcanoes like Teide offer to people.

1

2

3 [3]

[Total: 8]

- 6 Fig. 6.1 shows areas in Africa at risk of desertification. Desertification is when land can no longer support vegetation and agriculture becomes unproductive.

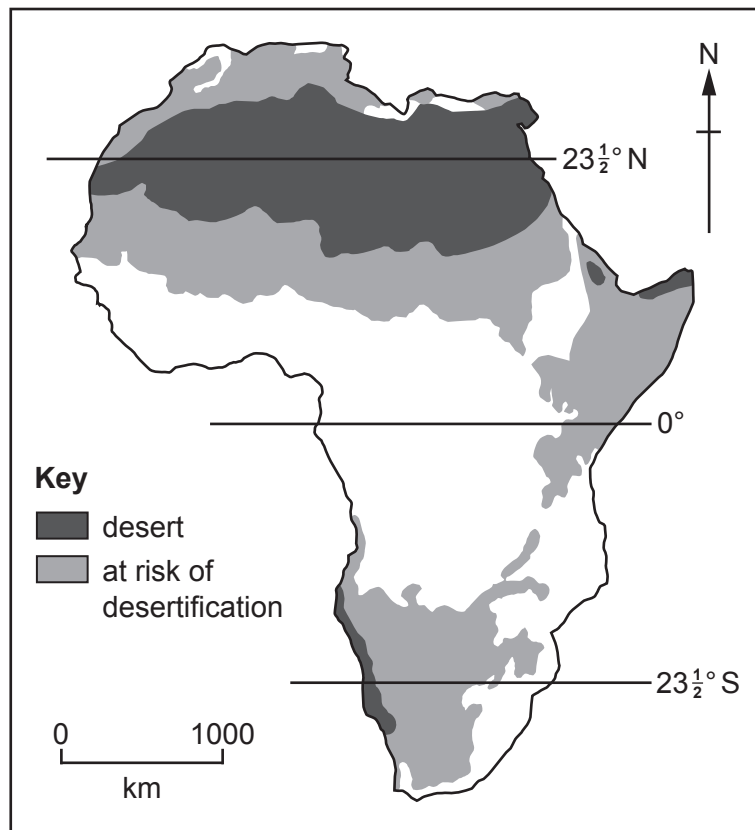


Fig. 6.1

- (a) Using Fig. 6.1, describe the distribution of areas in Africa at risk of desertification.

.....

.....

.....

.....

.....

.....

.....

..... [3]

- (b) Fig. 6.2 gives information about annual rainfall in one of the areas at risk of desertification in Africa. It shows the years which have been wetter than average and drier than average between 1950 and 2016.

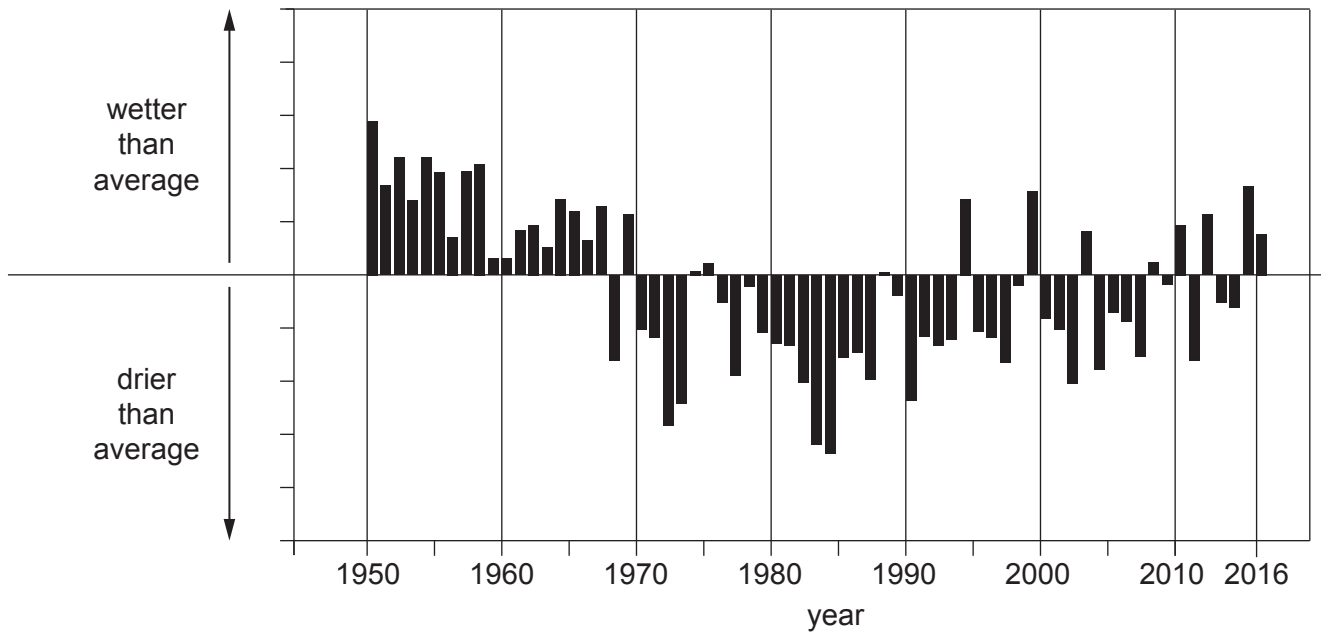


Fig. 6.2

Describe the annual rainfall:

- (i) between 1950 and 1967

.....
 [1]

- (ii) between 1970 and 1998

.....
 [1]

- (iii) between 2000 and 2016

.....
 [1]

(c) Using Fig. 6.2, explain how rainfall could be one factor which could lead to desertification.

.....

.....

.....

.....

..... [2]

[Total: 8]

This image shows a full page of a handwriting practice worksheet. It consists of multiple rows of horizontal dashed lines spaced evenly down the page, providing a guide for letter height and placement. The background is plain white, and there are no other markings or text present.

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