

### **Cambridge International Examinations**

Cambridge International General Certificate of Secondary Education

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

976823317

GEOGRAPHY 0460/22

Paper 2 October/November 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 the booklet. The question number(s) must be clearly shown.

Answer all questions.

The Insert contains Photograph A for Question 3.

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.

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

NICs - Newly Industrialised 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 18 printed pages, 2 blank pages and 1 Insert.



- 1 Study the map extract for Bordalen, Norway. The scale is 1:25000.
  - (a) Fig. 1 shows some of the features in the north west of the map extract. Study Fig. 1 and the map extract, and answer the questions below.

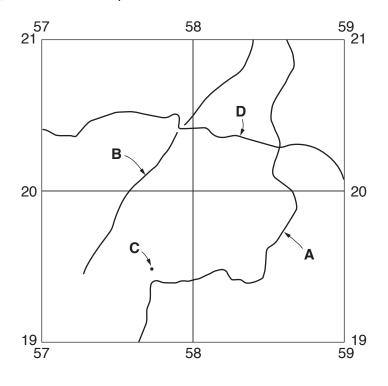


Fig. 1

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

(i)	feature A;	
		[1]
(ii)	the name of river <b>B</b> ;	
		[1]
(iii)	the height above sea level of the spot height at C;	
	metres	[1]
(iv)	the height above sea level of the contour at <b>D</b> .	
	metres	[1]

**(b)** Fig. 2 shows the location of two grid squares in the south east of the map extract. These are square 6316 at Færes-fjellet and square 6416 at Grønahorgi. Study the two areas and answer the questions below.

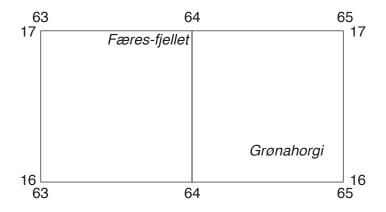


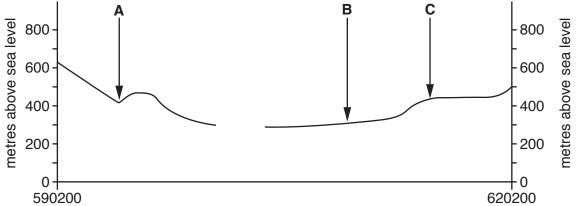
Fig. 2

The table below compares the features of the two areas. Complete the table by putting ticks in the correct **five** boxes. Use only **one** tick for each row.

	Square 6316 at Færes-fjellet	Square 6416 at Grønahorgi	Both these areas	Neither of these areas
lakes				
forest				
marsh				
glaciers				
land over 1100 m above sea level				

[5]

(c) Fig. 3 is a cross section along northing 20 from 590200 to 620200.



					0_0_0	
			F	ig. 3		
	(i)	Name the riv	er at <b>A</b> .			
	(ii)	Identify the f	eature at <b>B</b> .			[1]
	(iii)		ype of land use at <b>C</b> .			[1]
						[1]
	(iv)		ection shown on Fig. 3 is on Fig. 3 to complete th	s incomplete. Using infor e cross section.	mation from the ma	p extract, [1]
(d)	-		uphill from the bridge nt at Litraknappen (623	over the main river sou 167).	th of Rjodo (60817	73) to the
	(i)	In which con	npass direction does th	e person travel?		
						[1]
	(ii)	What distand	ce does the person trav	vel in a straight line?		
						[1]
	(iii)	How many n	netres does the person	climb? Circle one corre	ct answer below.	
		568 m	668 m	768 m	868 m	[1]

Describe the distribution of farms and houses shown on the map.	)
[4	
[4	
[Total: 20 marks	

**2** Fig. 4 gives information about population change and population migration in four urban areas in the USA between 2010 and 2013. Study Fig. 4 and answer the following questions.

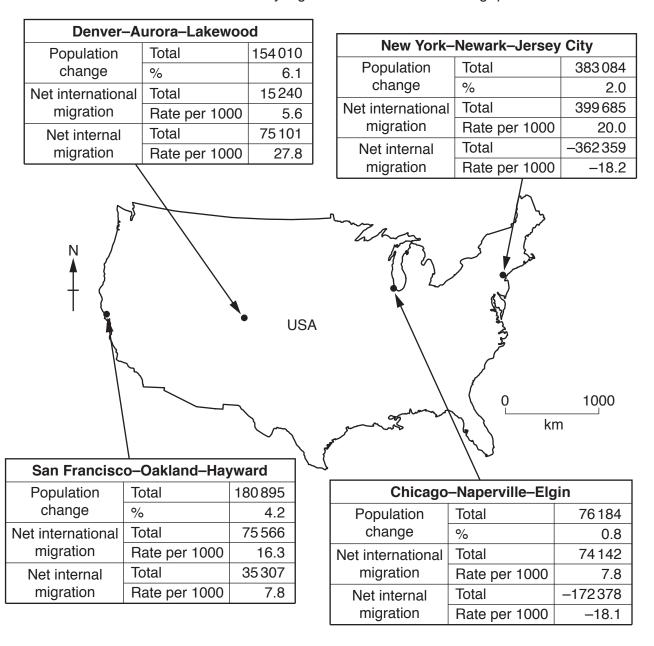


Fig. 4

(a) (i) Which **one** of the four urban areas had the greatest **percentage** change in its population? Tick **one** correct answer below.

Urban area	Tick (✓)
Chicago-Naperville-Elgin	
Denver-Aurora-Lakewood	
New York-Newark-Jersey City	
San Francisco-Oakland-Hayward	

[1]

(ii) Which **one** of the four urban areas had the greatest change in its **total** population? Tick **one** correct answer below.

Urban area	Tick (✓)
Chicago-Naperville-Elgin	
Denver-Aurora-Lakewood	
New York-Newark-Jersey City	
San Francisco-Oakland-Hayward	

[1]

(iii) Which **one** of the four urban areas had the greatest gain in population because of migration to and from other countries? Tick **one** correct answer below.

Urban area	Tick (✓)
Chicago-Naperville-Elgin	
Denver-Aurora-Lakewood	
New York-Newark-Jersey City	
San Francisco-Oakland-Hayward	

[1]

(iv) Which **one** of the four urban areas had the greatest gain in population because of migration to and from other parts of the USA? Tick **one** correct answer below.

Urban area	Tick (✓)
Chicago-Naperville-Elgin	
Denver-Aurora-Lakewood	
New York-Newark-Jersey City	
San Francisco-Oakland-Hayward	

F -4	. 7

(b)	Compare the net internal migration of the two urban areas in the east with that of the tw urban areas in the west.	0
		• •
	To the state of th	21

(c)	Loo	k at the figures for Chicago-Naperville-Elgin.
	(i)	The area has lost population because of migration. What type of migration has caused this?
		[1]
	(ii)	Give one cause of the overall population increase.
		[1]
		[Total: 8 marks]

Photograph A (Insert) shows a mountain landscape.

3

Describe the river valleys shown in the photograph. Refer to:
<ul> <li>the shape of the cross profiles;</li> <li>the long profiles;</li> <li>any other features of the landscape.</li> </ul>
[8]
[Total: 8 marks]

4 Fig. 5 shows the climate of a place in Africa.

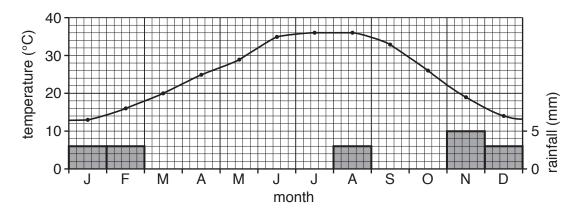


Fig. 5

(	a)	For the	climate	shown	in	Fia.	5	state	the:
٨	u,	1 01 1110	ommato	CIICVVII		1 19.	$\sim$	olulo	UIIC

(i)	January temperature;	
	°C	[1]
(ii)	annual temperature range.	
	°C	[1]

(b) What is the annual rainfall at the place shown in Fig. 5? Circle one correct answer below.

12 mm	17 mm	34 mm	60 mm	[1]

(c) Fig. 6 shows the location of three places in Africa, X, Y and Z.

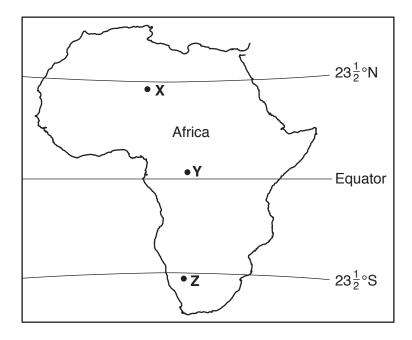


Fig. 6

Which location, **X**, **Y** or **Z**, has the climate shown in Fig. 5?

[1	1
יו	J

(d) Give two reasons why summer (July) is hotter than winter (January) at the place shown in Fig. 5.

1	
2	
	-

(e) Suggest two reasons for the very low rainfall at the place shown in Fig. 5.

ı		 								
•		 								
_	<u> </u>	 								

.....[2

[Total: 8 marks]

**5** Fig. 7 shows the rivers and drainage basins of Kazakhstan. Kazakhstan is completely surrounded by other countries.



Fig. 7

(i)	) What is meant by the following terms:	
	drainage basin;	
	watershed?	
		[2]
(ii)	) Identify <b>two</b> rivers shown on Fig. 7 which have their sources outside Kazakhst their mouths within Kazakhstan.	an and
	1	
	2	[2]
(iii)	Identify the river shown on Fig. 7 which is entirely within Kazakhstan.	
		[1]

(b) Fig. 8 gives information about six of the rivers shown on Fig. 7.

River	River discharge* (km <sup>3</sup> /year)						
	Total	Flow from other countries	Minimum flow in dry years				
Syrdarya	13.3	10	4.2				
Ili	28.77	12.37	17.8				
Shu	3.23	2.03	2.7				
Irtysh	34.03	9.53	19.7				
Tobol	2.1	0.6	0.3				
Ural	13.9	8.6	3.0				

<sup>\*</sup>River discharge is the amount of water flowing in a river at a certain time.

Fig. 8

Using evidence reliable water su	-	suggest	why	the	Irtysh	river	might	provide	the	most
		 •••••								
		 •••••								
		 					•••••			
		 								[3]
								[Total	8 m	arks]

**6** Fig. 9 shows annual average solar radiation in South Africa.

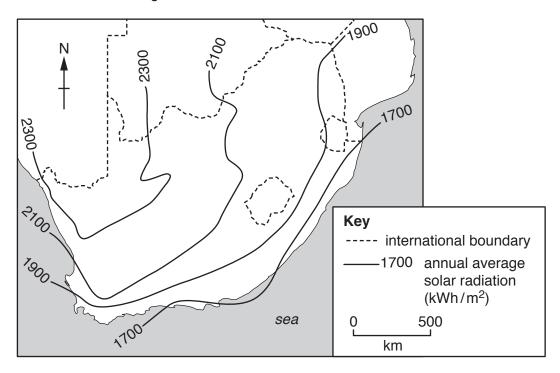


Fig. 9

U	ising Fig.	9, descri	ibe the dist	ribution of	solar radia	ation in Sou	ith Africa.	
								 [3]

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(a)

(b) Fig. 10 shows the distribution of solar radiation in Germany.

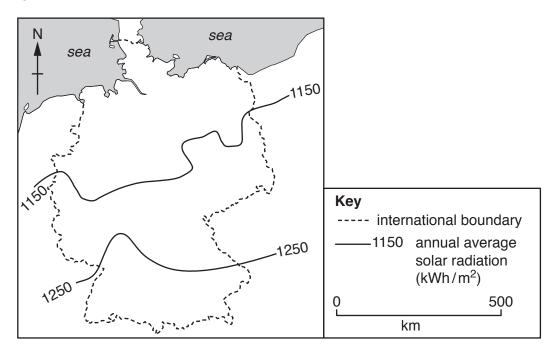


Fig. 10

Using Figs. 9 and 10, describe the difference in the amounts of solar radiation received in South Africa and Germany.
[2]

(c) Fig. 11 shows the location of the main cities in South Africa.

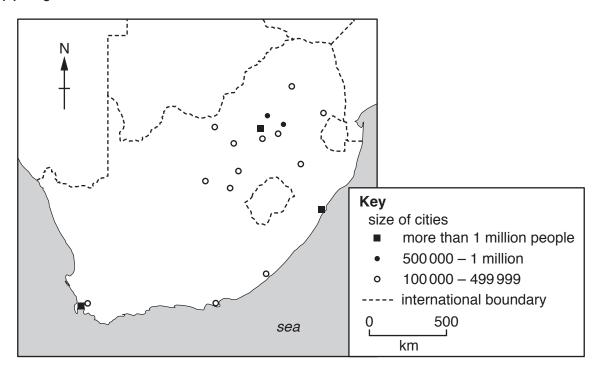


Fig. 11

South Africa has greater potential for using solar power than Germany."  How far do you agree? Give evidence from Figs. 9, 10 and 11 to support your answer.						
[3]						

[Total: 8 marks]

# **Additional Pages**

If you use the following number(s) must be clearly	lined pages to y shown.	complete the	answer(s) to	any question(s),	the question

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