



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

CANDIDATE  
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**GEOGRAPHY**

**0460/21**

Paper 2

**October/November 2016**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials:      Ruler  
                                        Protractor  
                                        Plain paper  
                                        Calculator

1:50 000 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 Photographs A and B 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.

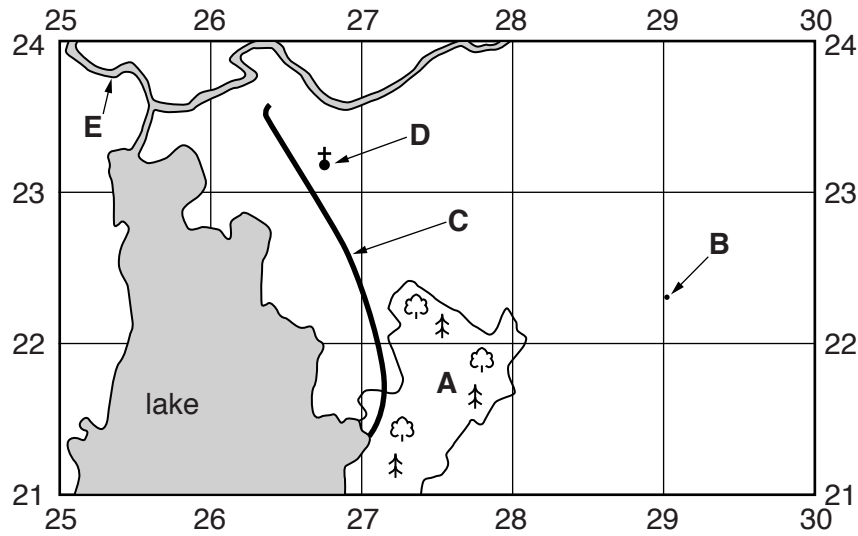
The number of marks is given in brackets [ ] at the end of each question or part question.

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 **16** printed pages, **4** blank pages and **1** Insert.

- 1 Study the map extract for Keswick, United Kingdom. The scale is 1:50 000.

Fig. 1 shows some of the features in the south east of the map extract.



**Fig. 1**

- (a) Using the map extract, identify the following features shown on Fig. 1:

- (i) the land use in area **A**;

.....[1]

- (ii) the height above sea level at spot height **B**;

..... metres [1]

- (iii) the type of road at **C**;

.....[1]

- (iv) feature **D**;

.....[1]

- (v) the name of river **E**.

.....[1]

- (b) Estimate the area of the lake shown on Fig. 1. Circle **one** correct answer below.

3 km<sup>2</sup>      5 km<sup>2</sup>      7 km<sup>2</sup>      9 km<sup>2</sup> [1]

(c) Fig. 2 shows the whole of the map extract and area X in the north east.

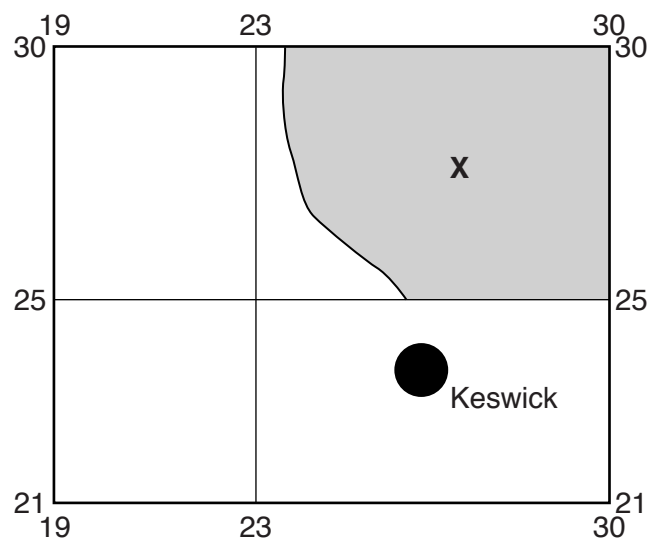


Fig. 2

(i) Describe the relief of area X.

.....

.....

.....

.....

.....

.....

.....

.....

.....[4]

(ii) Describe the width of the rivers in area X.

.....

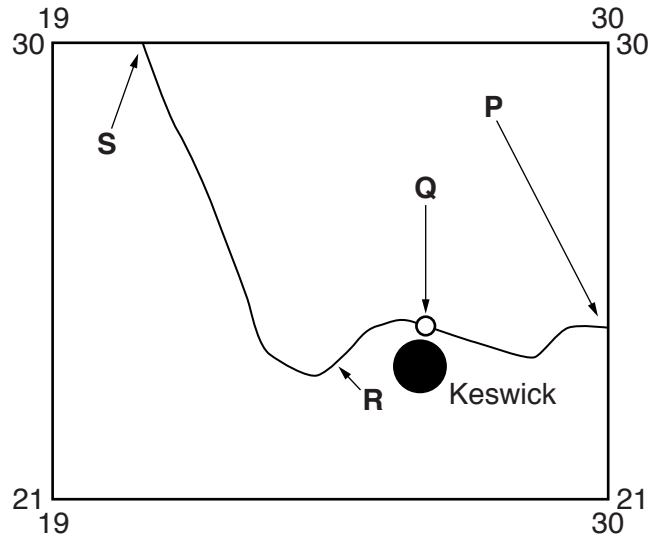
.....[1]

(iii) Describe the drainage pattern of area X.

.....

.....[1]

- (d) Fig. 3 shows the whole of the map extract and the primary A66 road (shown in green on the map extract).



**Fig. 3**

- (i) Measure the distance along the road from the eastern edge of the map extract at **P** to the roundabout (circle) at **Q**. Give your answer in metres.

..... metres [1]

- (ii) What is the compass bearing **from** point **P** to point **Q**? Tick **one** correct answer below.

|      | Tick (✓) |
|------|----------|
| 090° |          |
| 180° |          |
| 225° |          |
| 270° |          |

[1]

- (iii) What is the six-figure grid reference of the roundabout (circle) at **Q**? Tick **one** correct answer below.

|        | Tick (✓) |
|--------|----------|
| 265243 |          |
| 263244 |          |
| 243263 |          |
| 254234 |          |

[1]

(e) The A66 road shown on Fig. 3 (on the opposite page) was built quite recently. The route for the road had to be chosen.

(i) Explain how the settlement of Keswick influenced the choice of route between **P** and **R**.

.....

.....

.....

.....[2]

(ii) Physical (natural) factors influenced the choice of the route between **R** and the northern edge of the map at **S**. Give map evidence for this.

.....

.....

.....

.....

.....

.....[2]

(iii) The methods of construction kept the road as level as possible between **P** and **R**. Give **two** ways that this was done.

1 .....

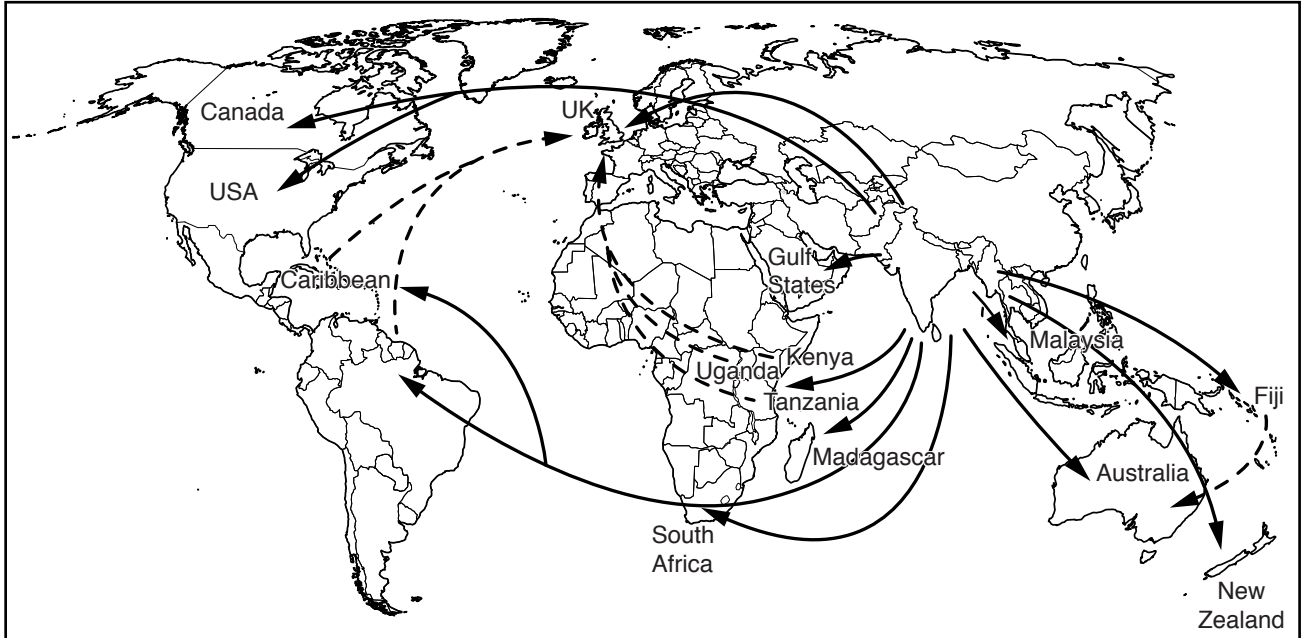
2 ..... [1]

[Total: 20 marks]

2 For many years migrants have left South Asia for other countries.

(a) Fig. 4 below shows some of the migrations of South Asian people. Use Fig. 4 to answer the questions below.

**Population migrations of South Asian people**



**Key**

- ▶ first time migrations of South Asian people  
 - - - - -▶ later migrations of South Asian people

**Fig. 4**

(i) Identify **two** African countries to which South Asian people have migrated.

1 ..... 2 ..... [1]

(ii) Identify **two** routes taken by South Asian people to Australia.

.....  
 .....  
 ..... [2]

(iii) South Asian people have migrated to South America and the Caribbean and then to another country. Identify this country.

..... [1]

- (b) Table 1 gives information about the numbers of South Asian people living in the United Kingdom. It shows people from three South Asian countries: Bangladesh, India and Pakistan.

**Table 1**

**South Asian people living in the United Kingdom**

|                              |                                 | <b>2001</b> | <b>2011</b> |
|------------------------------|---------------------------------|-------------|-------------|
| People of South Asian origin | number (thousands)              | 2579        | 4373        |
|                              | percentage of the UK population | 4.4%        | 6.9%        |
|                              |                                 |             |             |
| People of Bangladeshi origin | number (thousands)              | 283         | 451         |
|                              | percentage of the UK population | 0.5%        | 0.7%        |
|                              |                                 |             |             |
| People of Indian origin      | number (thousands)              | 1053        | 1451        |
|                              | percentage of the UK population | 1.8%        | 2.3%        |
|                              |                                 |             |             |
| People of Pakistani origin   | number (thousands)              | 747         | 1174        |
|                              | percentage of the UK population | 1.3%        | 1.9%        |

- (i) Which **one** of the three countries has the fewest people living in the UK?

..... [1]

- (ii) People from which **one** of the three countries have shown the greatest increase in the UK population between 2001 and 2011?

..... [1]

- (iii) Describe the changes in the numbers of people from the three South Asian countries living in the UK between 2001 and 2011.

.....

.....

.....

.....

.....

..... [2]

[Total: 8 marks]

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4 (a) Fig. 5 shows a rain gauge kept at a weather station.

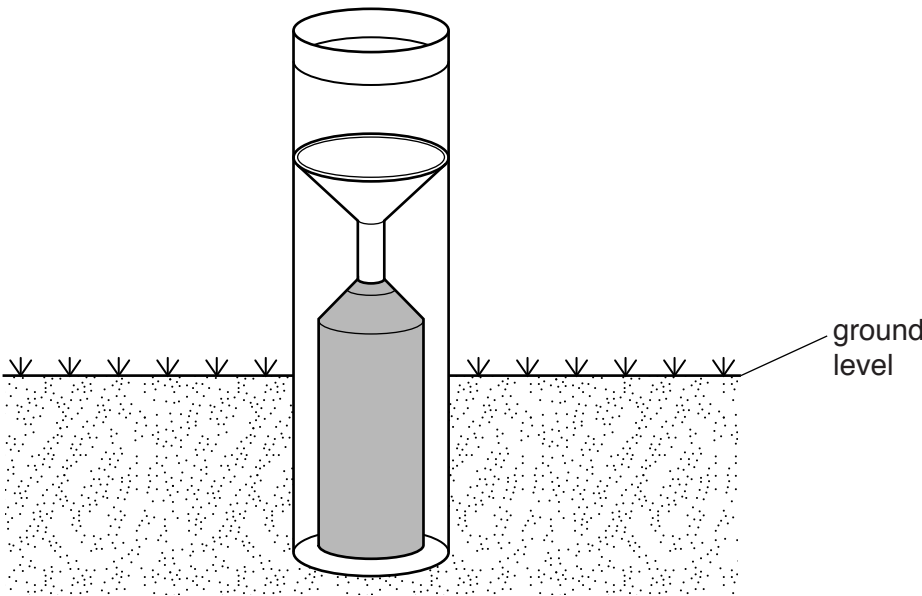


Fig. 5

(i) Describe the ground surface where the rain gauge is located.

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

(ii) Choose **three** features of the rain gauge shown on Fig. 5 and explain how each one helps to measure the rainfall accurately.

1 .....  
.....  
2 .....  
.....  
3 .....  
.....[3]

- (b) Another instrument kept at a weather station is an hygrometer (wet-and-dry bulb thermometer). This is shown on Fig. 6 below. The readings are used to calculate the percentage relative humidity using the conversion table, Table 2.

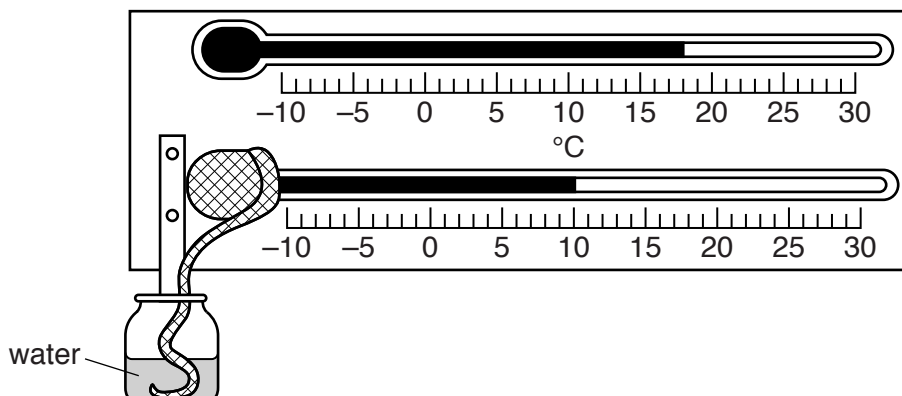


Fig. 6

Table 2

| dry-bulb<br>reading<br>(°C) | wet-bulb depression (°C) |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|--------------------------|----|----|----|----|----|----|----|----|----|----|
|                             | 0                        | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 10                          | 100                      | 88 | 76 | 65 | 54 | 43 | 33 | 24 | 13 | 4  |    |
| 12                          | 100                      | 88 | 78 | 67 | 57 | 48 | 38 | 28 | 19 | 10 | 2  |
| 14                          | 100                      | 89 | 79 | 69 | 60 | 50 | 41 | 33 | 25 | 16 | 8  |
| 16                          | 100                      | 90 | 80 | 71 | 62 | 54 | 45 | 37 | 29 | 21 | 14 |
| 18                          | 100                      | 91 | 81 | 72 | 64 | 56 | 48 | 40 | 33 | 26 | 19 |
| 20                          | 100                      | 91 | 82 | 74 | 66 | 58 | 51 | 44 | 36 | 30 | 23 |

- (i) State the readings of the wet-and-dry bulb thermometer in Fig. 6.

Wet-bulb .....

Dry-bulb .....

[1]

- (ii) Calculate the depression of the wet bulb.

.....

[1]

- (iii) Using your answers to (b)(i) and (ii) and Table 2, state the relative humidity.

.....

[2]

[Total: 8 marks]

5 (a) Fig. 7 shows the distribution of motor vehicle factories in Poland.



**Key**  
○ cars and vans  
● buses  
□ trucks  
— international boundary

**Fig. 7**

(i) What is the distance between Slupsk and Sanok? Circle **one** correct answer below.

400 km      600 km      800 km      1000 km      [1]

(ii) Describe the distribution of motor vehicle factories shown on Fig. 7.

.....

.....

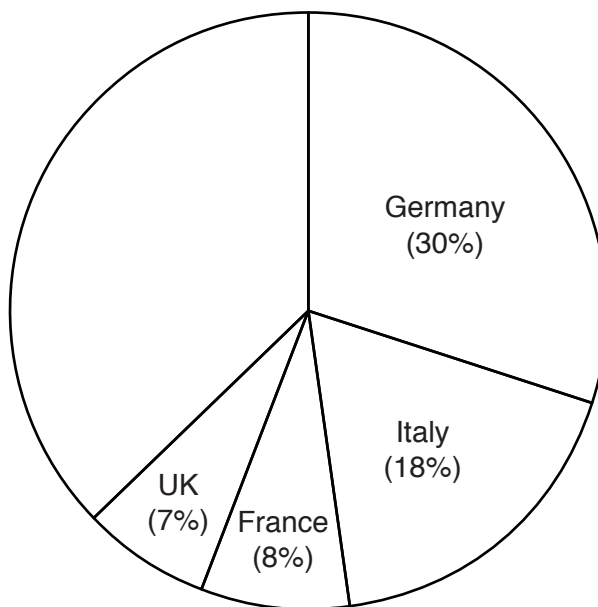
.....

.....

.....

.....[3]

- (b) Almost all of the motor vehicles manufactured in Poland are exported. The countries importing these vehicles are shown on Fig. 8.

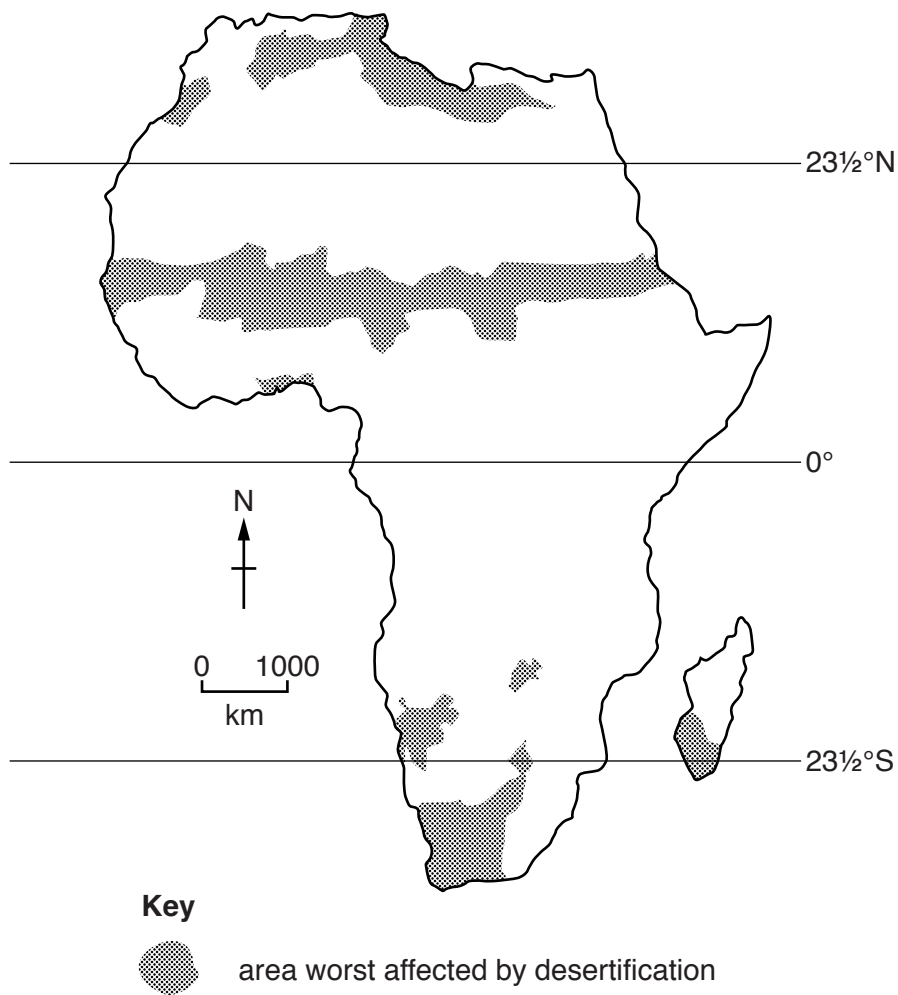


**Fig. 8**

- (i) 6% of Poland's motor vehicle exports go to the Czech Republic and 31% to other countries. Add this information to Fig. 8. [2]
- (ii) Using Fig. 7, state how many countries have an international boundary with Poland. [1]  
 .....
- (iii) Using Figs. 7 and 8, state the percentage of Poland's motor vehicles that are exported to neighbouring countries (those countries which share an international border with Poland). [1]  
 ..... %

[Total: 8 marks]

- 6 Study Fig. 9, which shows some of the areas of Africa worst affected by desertification.



**Fig. 9**

- (a) Describe the distribution of areas affected by desertification shown on Fig. 9.

.....

.....

.....

.....[2]

(b) Fig. 10 describes some of the features of desertification.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: center;"><b>Desertification</b></p> <p>Desertification is when land in semi-desert areas loses its ability to support vegetation, crops and animals, often due to human impact.</p> <p>The people in these areas are affected by the following natural features:</p> <ul style="list-style-type: none"> <li>• a marked dry season and frequent droughts;</li> <li>• sparse vegetation;</li> <li>• soils which lack humus and structure and are easily eroded.</li> </ul> <p>The human issues affecting many of these areas include:</p> <ul style="list-style-type: none"> <li>• rapid population growth;</li> <li>• wars and refugees.</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Fig. 10**

Using information from Fig. 10, explain how each of the decisions below would have positive and negative effects.

(i) Should they keep more animals?

Positive effect .....

.....

Negative effect .....

.....[2]

(ii) Should they gather more fuelwood?

Positive effect .....

.....

Negative effect .....

.....[2]

(iii) Should they grow crops more intensively?

Positive effect .....

.....

Negative effect .....

.....[2]

[Total: 8 marks]



[illegible]





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