



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

CANDIDATE  
NAME

CENTRE  
NUMBER

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**GEOGRAPHY**

**0460/04**

Paper 4 Alternative to Coursework

**For Examination from 2016**

SPECIMEN PAPER

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials:     Calculator  
   Ruler  
   Protractor

**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, graphs or rough working.

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

**DO NOT WRITE IN ANY BARCODES.**

Answer **all** the questions.

The Insert contains Fig. 1 for Question 1 and Figs 6 and 11 for Question 2.

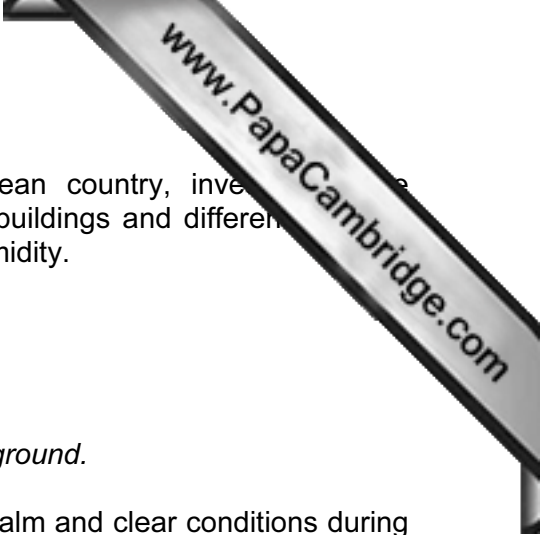
The Insert is **not** required by the Examiner.

Sketch maps and diagrams should be draw 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.

This document consists of **19** printed pages, **1** blank page and **1** Insert.



- 1 Students at a school in the Netherlands, a northern European country, investigated the microclimate around their school. This was to find out whether buildings and different ground surface influenced the air temperature and the relative humidity.

The two hypotheses were:

**Hypothesis 1:** *Temperatures are higher nearer to the buildings.*

**Hypothesis 2:** *Relative humidity is affected by vegetation on the ground.*

- (a) The students recorded temperature and relative humidity in calm and clear conditions during November. Why were these conditions important for the investigation?

.....

.....

.....

..... [2]

- (b) Study the map, Fig. 1 (Insert). This shows eight sites, labelled A to H, around the school buildings. These sites were used by the students for measuring temperature and relative humidity.

- (i) The school's Stevenson screen is located at Site A. Suggest **two** reasons why this is a good location for a Stevenson screen.

1 .....

.....

2 .....

..... [2]

- (ii) A traditional maximum-minimum thermometer is located in the Stevenson screen. Use Fig. 2 to identify maximum, minimum and present temperature shown on the thermometer. Record these in the boxes on Fig. 2.

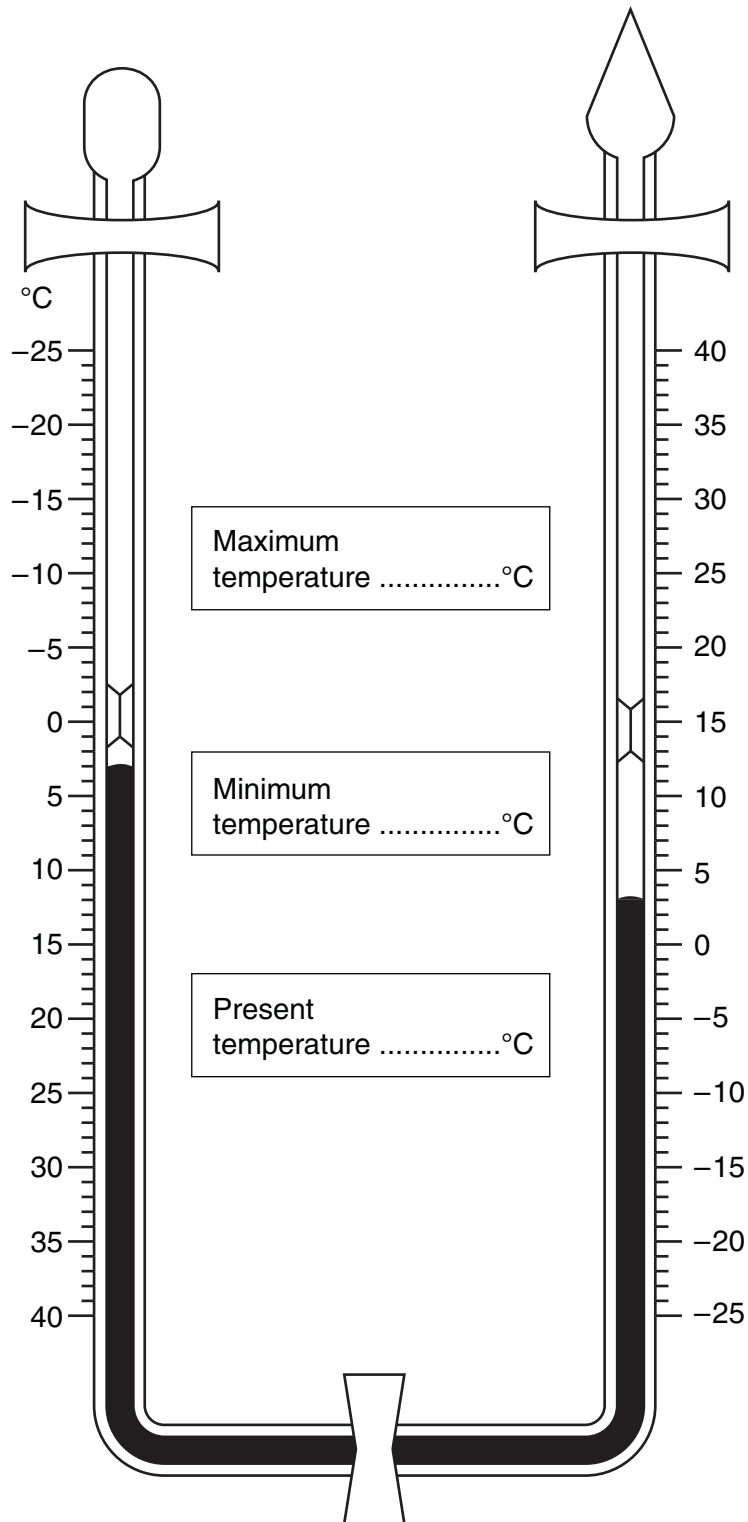


Fig. 2

- (c) The temperature at the other seven sites was measured using a hand-held digital thermometer. The instructions from the teacher on how to use this thermometer are shown in Fig. 3, below.

Readings should be taken at each site at 08.00 and 15.00 hours. Hold the digital thermometer at waist height for 30 seconds. Write the air temperature on the recording sheet. Repeat the measurement two minutes later. Calculate the average (mean) temperature of the two readings. Record this on the sheet too. Do this in the morning and in the afternoon for three days.

Fig. 3

- (i) Suggest **one** advantage of using a digital thermometer over a maximum-minimum thermometer.

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

- (ii) Give **one** disadvantage of the method described in Fig. 3.

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

- (iii) Suggest why the temperatures were taken each morning and afternoon.

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

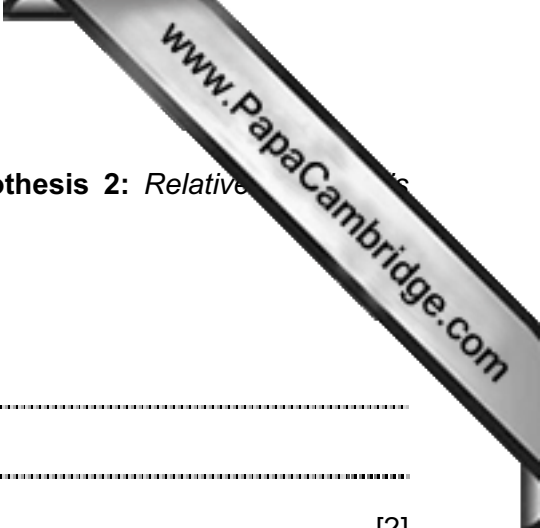
**TURN OVER FOR QUESTION 1(d)**











(g) (i) Does the data collected by the students support **Hypothesis 2: Relative humidity is affected by vegetation on the ground?**

State your answer and explain your decision.

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

(ii) Suggest **three** improvements the students could have made to their data collection methods.

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

[Total: 30 marks]

2 Students in Italy were investigating tourism in the village of Pescasseroli in the Abruzzi National Park. They did their fieldwork during the summer holiday. They wanted to test the following hypotheses:

**Hypothesis 1:** *People of different ages visit the National Park for different reasons.*

**Hypothesis 2:** *Tourism has a positive effect on the village of Pescasseroli.*

(a) The students used the Internet to find some information about Pescasseroli. This information is given in Fig. 5 below.

Pescasseroli is a settlement of 2 000 inhabitants. It is located on a wide plain surrounded by mountains, in the middle of the Abruzzi National Park. Activities in winter include downhill skiing and cross country skiing. In the summer there are many opportunities for a variety of walking and outdoor activities. There are six hotels in the settlement and 11 restaurants for visitors and residents to use.

**Fig. 5**

(i) Which **one** of the following describes the Internet as a source of information? Circle your answer.

Regular          Sampling          Secondary          Tertiary          [1]

(ii) The students also collected primary data. What is meant by a primary source of data?

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

(iii) Give **one** example of a primary source of data.

..... [1]

(b) To find out information for Hypothesis 1 the students produced a questionnaire. This is shown in Fig. 6 (Insert).

(i) The results to Question T1 (i) are shown in Table 3 below.

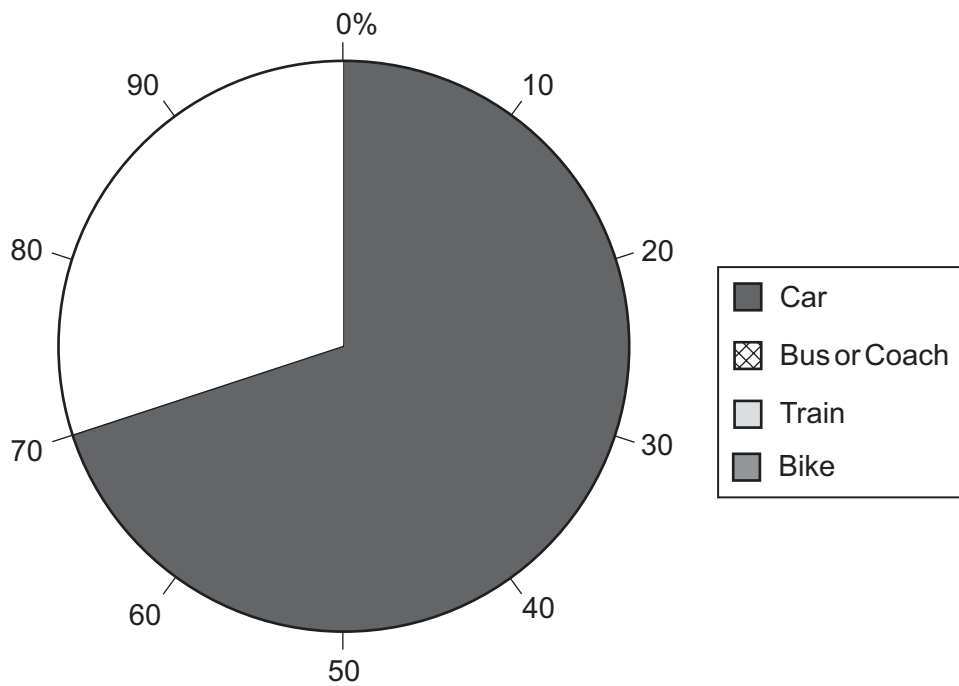
**Table 3**

**Question T1 (i)**  
**How did you get to the National Park today?**

Method	Number	Percentage
Car	56	70
Bus or Coach	17	21
Train	7	9
Bike	0	0

Use these results to complete the pie chart, Fig. 7, below.

**Method of transport used by tourists**



**Fig. 7**

[2]

(ii) Describe the pattern of transport shown by these results to Question T1 (i).

.....

.....

.....

..... [2]

(iii) Suggest **one** reason for this pattern.

.....

..... [1]

(iv) The results to Question T1 (ii) are shown in Table 4 below.

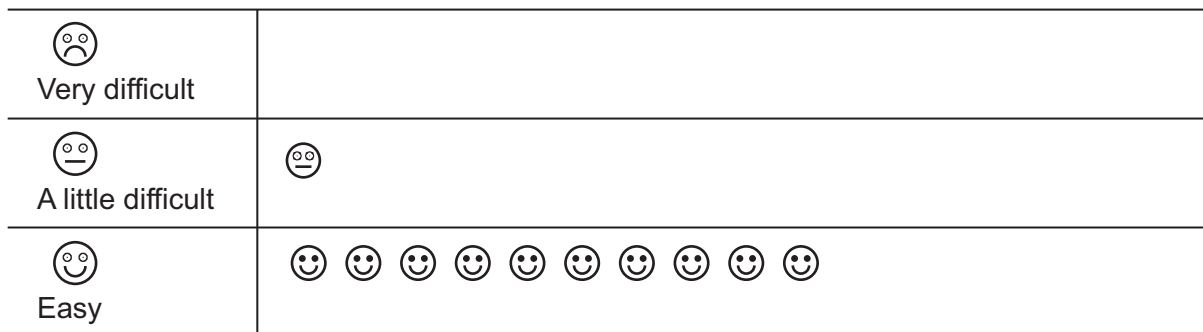
**Table 4**

**Question T1 (ii)**  
**If you came by car did you find parking difficult?**

Opinion about parking	Number	Percentage
Very difficult	12	21
A little difficult	4	7
Easy	40	72

Use these results to complete the pictograph, Fig. 8, below, to show tourists' opinions about parking in Pescasseroli. [1]

**Tourists' opinions about parking**



 or  or  = 4 people

**Fig. 8**

(c) (i) The results to Question T2 are shown in Table 5 below.

**Table 5**

**Question T2**

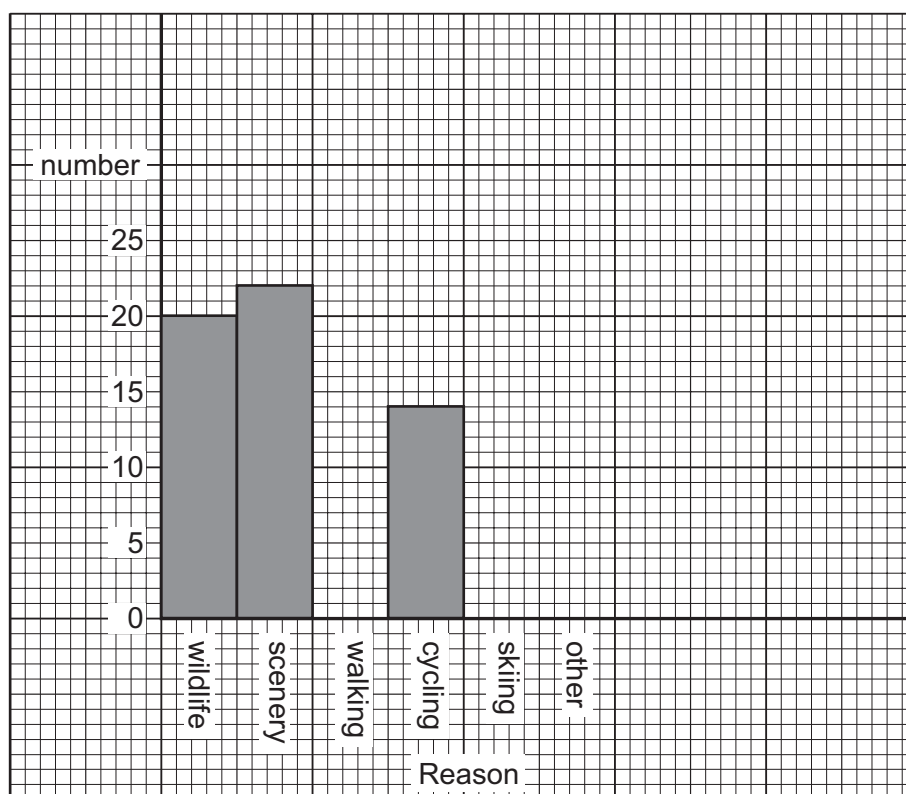
**What is the main reason for your visit to the National Park?**

Main reason	Number	Percentage
See the wildlife	20	25
Scenery	22	28
Walking	15	19
Cycling	14	17
Skiing	0	0
Other e.g. visiting friends	9	11

Use these results to complete the bar graph, Fig. 9, below.

[2]

**Reasons for visiting the Abruzzi National Park**



**Fig. 9**





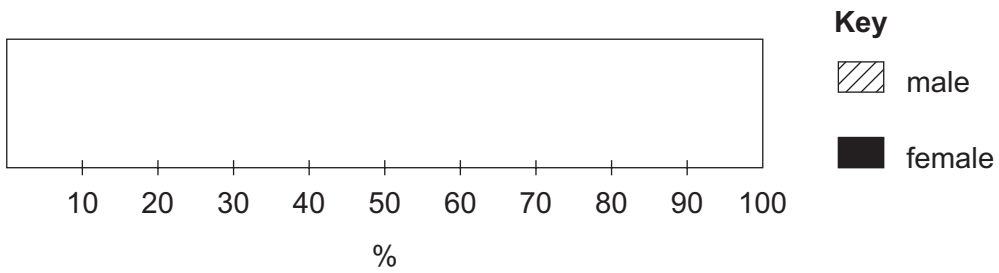
(v) The data about the gender of visitors is shown in Table 9 below.

**Table 9**

**Gender of visitors**

Gender	Percentage
Male	54
Female	46

Use the data in Table 9 to plot the percentage of visitors gender in the divided bar graph below.



**Fig. 10**

[2]



**TURN OVER FOR QUESTION 2(d)**

- (d) To find out information for **Hypothesis 2: Tourism has a positive effect on the quality of life of residents of Pescasseroli**, the students produced a questionnaire for residents. This is shown in Fig. 12 (Insert). The results of this questionnaire are shown in Fig. 12 below.

**Results of questionnaire for residents (125 results)**

			Number	%
R1	Length of residency	Under 5 years	19	15
		5–10 years	22	18
		11–15 years	66	53
		Over 15 years	18	14
R2	Opinion of main problems	None	50	40
		Crowded	18	14
		Litter	15	12
		Traffic	26	21
		Noisy people	16	13

			Yes	No
R3	Residents' views on benefits of tourism	Tourism related job	66%	34%
		Adequate tourist facilities	72%	28%
		Adequate parking	69%	31%
		Improved facilities	83%	17%

**Fig. 12**



