UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

GEOGRAPHY **2217/02**

Paper 2 **May/June 2008**

2 hours 15 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Calculator
Plain paper

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 a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
DO **NOT** WRITE ON ANY BARCODES.

Section A
Answer **all** questions.
Section B
Answer **one** question.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
Insert 1 contains Photograph A for Question 4.
Insert 2 contains Fig. 7 for Question 6 and Figs 12 and 14 for Question 7.
The Survey Map Extract and the Inserts are **not** required by the Examiner.

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.

For Examiner's Use	
Section A	
Q1	
Q2	
Q3	
Q4	
Q5	
Section B	
Q6	
Q7	
Total	

This document consists of **25** printed pages, **3** blank pages and **2** Inserts.

UNIVERSITY of CAMBRIDGE International Examinations

Section A

Answer **all** questions in this section.

For Examiner's Use

1 Study the 1:50 000 map extract of the Rusape area in Zimbabwe.

(a) What types of road are there in grid square 9852?

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.....[2]

(b) Fig. 1 shows a cross-section along the line X to Y, which is marked on the map extract.

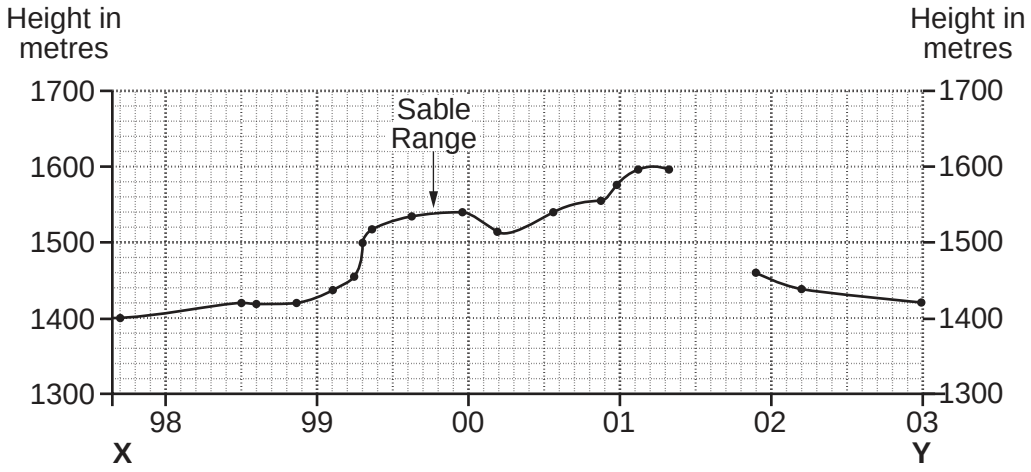

Fig. 1

(i) On Fig. 1, complete the cross section by plotting the remaining contours. [3]

(ii) Mark with an arrow, and label with the letter shown in brackets, the following features onto your completed cross section:

Pfunwa Hill (P); [1]

the 33 kV Power Line (PL); [1]

a stream (S); [1]

the main area of cultivated land (C), also show how far it extends. [2]

(iii) Suggest a reason for the location of the cultivated land you have marked on the cross section.

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.....[1]

(c) In which direction is Tandi School (in grid square 9749) from Pfunwa Hill?

.....[1]

For Examiner's Use

(d) **(i)** Describe the location of the huts in the western part of the map extract.

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.....[2]

(ii) Suggest reasons for the location of these huts.

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.....[2]

(e) There is a proposal to build a food processing factory in the area covered by the map. Three possible general areas have been chosen. These general areas are marked on the map in grid squares labelled **R**, **T** and **S**.

(i) Give a six figure reference for an appropriate site for the factory in **one** of the areas.

.....[1]

(ii) Using map evidence only, explain why you chose this site for the factory.

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.....[3]

[Total: 20 marks]

2 **(a)** Study Fig. 2, which shows the changing fertility rate in China. Fertility rate is the average number of children a woman bears in her lifetime.

For Examiner's Use

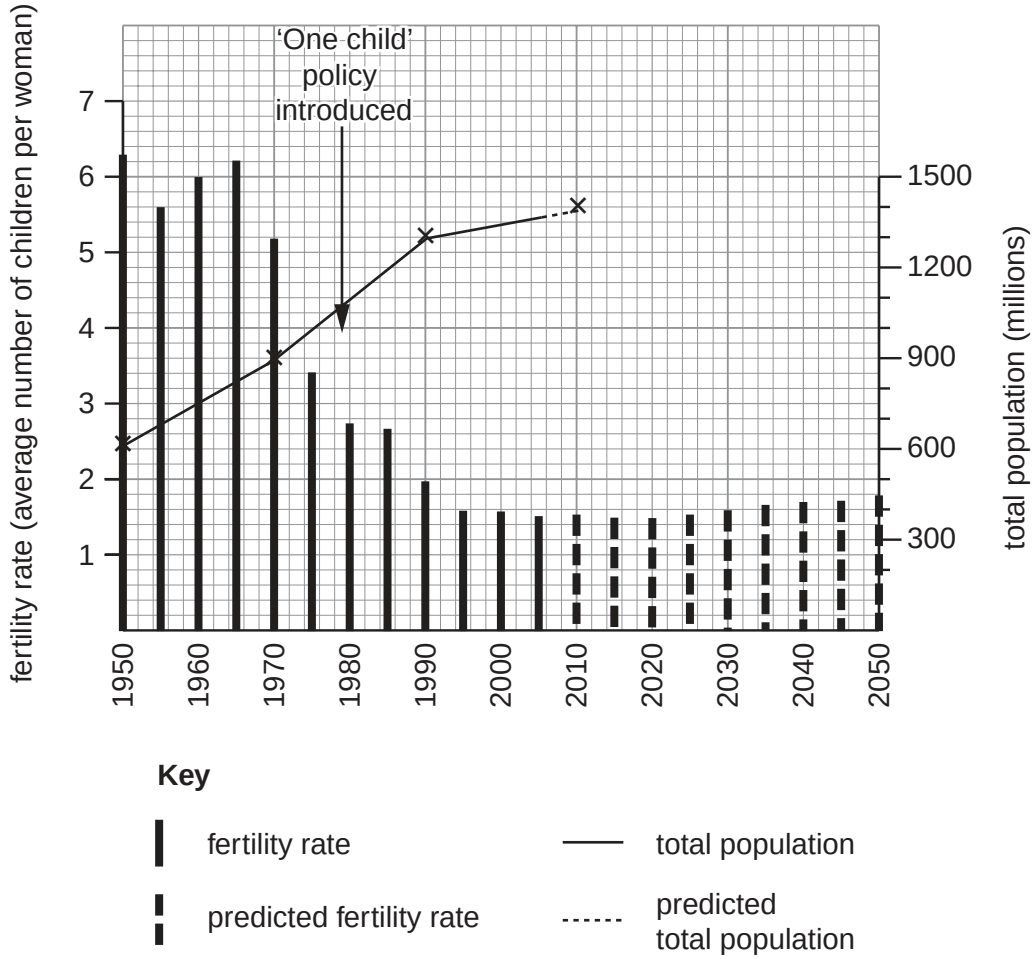

Fig. 2

What was the fertility rate in:

1960; .....

1980; .....

2000? .....[2]

(b) On Fig. 2, complete the line to show China's predicted population growth. Use the figures below.

Year	Population in millions
2030	1400
2050	1300

[2]

(c) Describe the general pattern of China's population growth shown on your graph.

For Examiner's Use

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.....[3]

(d) Many people think that it is China's 'One child policy' that has caused the reduction in fertility. Does Fig. 2 support this idea? Support your answer with data from Fig. 2.

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.....[4]

(e) Name **two** social or economic factors (other than population data), which might help to explain the changes in China's population.

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.....[2]

[Total: 13 marks]

3 Study Fig. 3, based on a newspaper article about a mudslide in the Philippines.

For Examiner's Use

Villagers buried alive

18 February 2006

More than 1500 people are feared dead after a wall of mud cascaded down a mountain and buried their village, on the Philippine island of Leyte. Virtually the whole of the village was buried by the landslide. A few tin roofs and bits of debris were visible above the sludge.

The disaster is being blamed on two weeks of heavy rain and the replacement of forests by shallow-rooted coconut plantations.

Local people reported an earthquake before the mudslide. Experts said its magnitude of 2.9 was too small to have triggered the landslide on its own.

Fig. 3

(a) How did people die?

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.....[1]

(b) According to the newspaper article, what were the possible causes of the disaster?

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.....[3]

(c) Study Figs 4A and 4B below. Fig. 4A shows a forested slope with some explanation about the effects of the forest. Fig. 4B shows the same slope after the forest has been cut down, but with less explanation.

For Examiner's Use

On Fig. 4B, write a sentence in each box to show what happens when the forest has been cut down. [3]

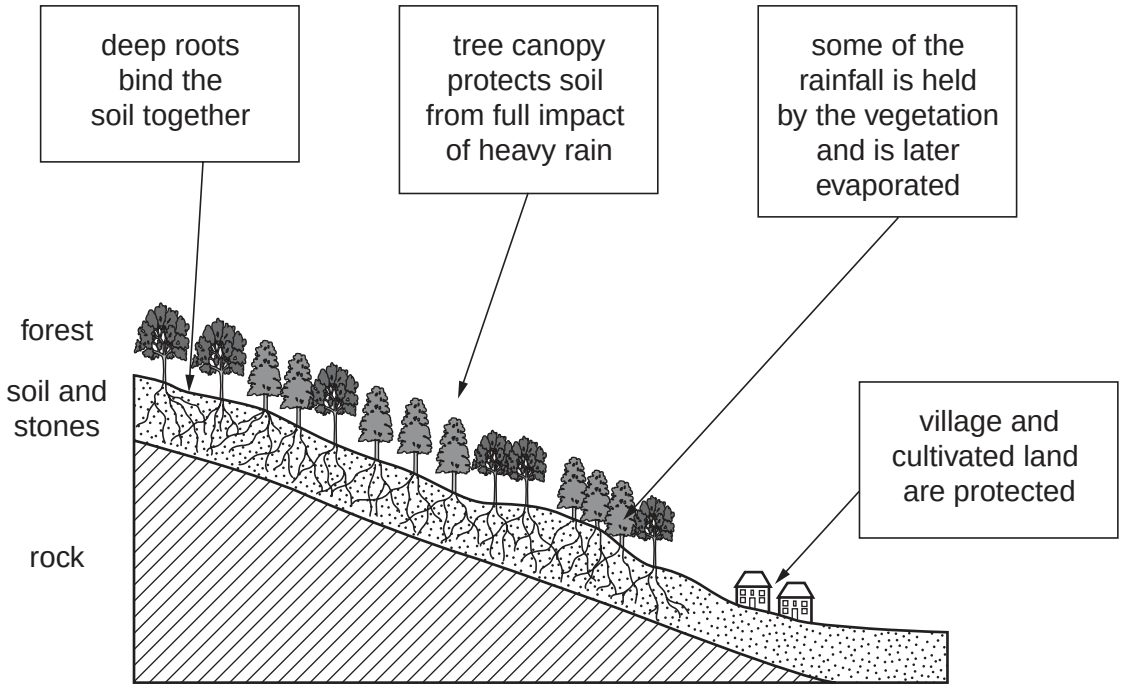

Fig. 4A

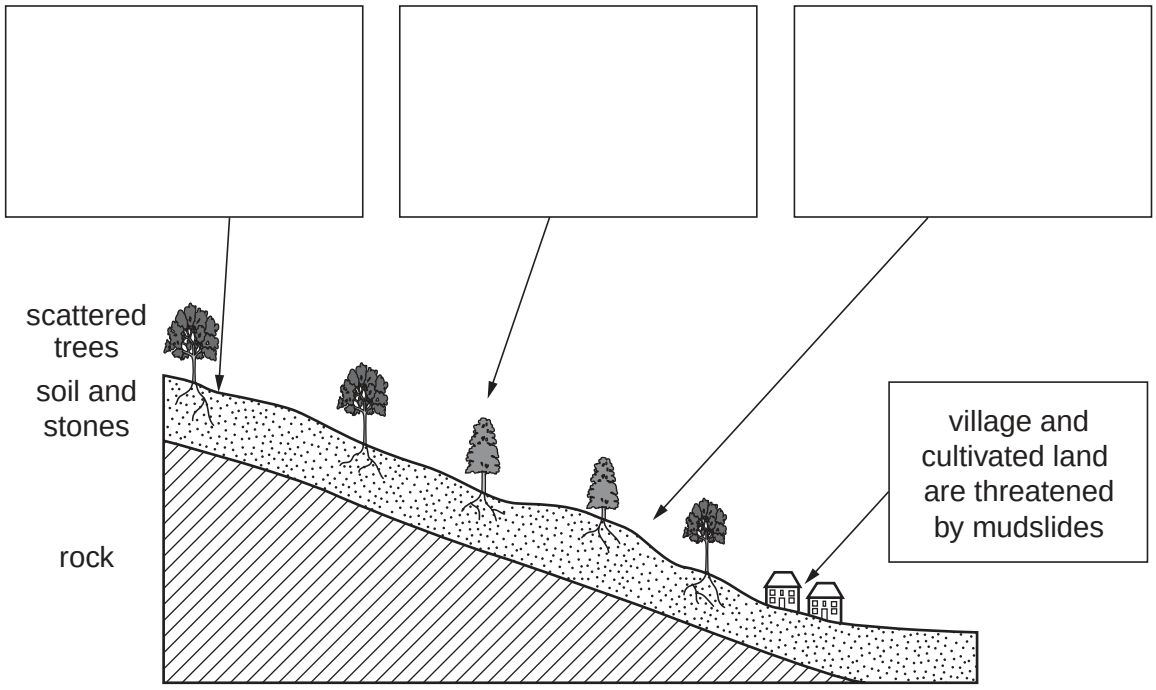

Fig. 4B

(d) Suggest what could be done to avoid further mudslides in areas such as that shown in Fig. 4B.

For Examiner's Use

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.....[2]

[Total: 9 marks]

4 Study Photograph A (Insert 1), which shows a valley in southern Japan.

For Examiner's Use

Describe the pattern of land-use shown in the photograph and suggest reasons for the pattern.

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[Total: 5 marks]

5 Study Fig. 5, which shows Havana, the capital city of Cuba. Cuba is an island in the Caribbean.

For Examiner's Use

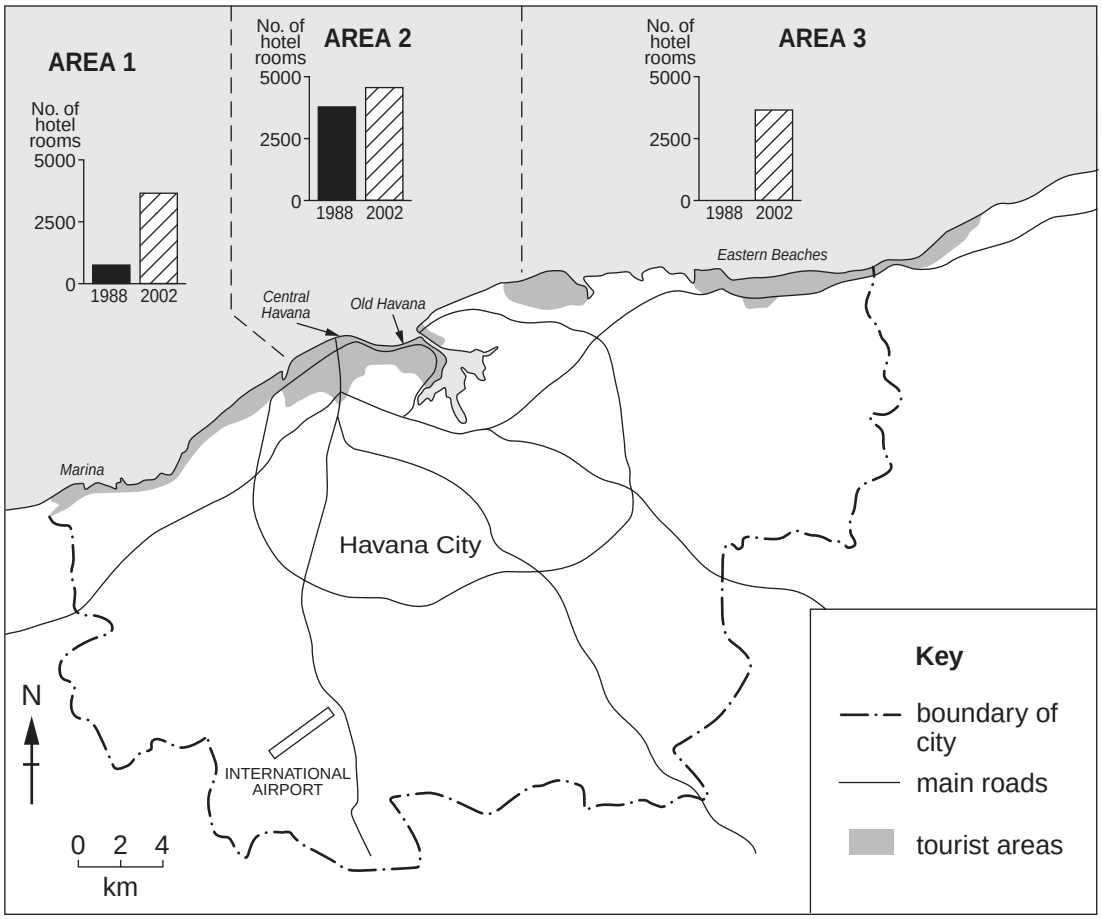

Fig. 5

(a) Describe the location of the tourist areas shown on the map.

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.....[2]

(b) **(i)** Which tourist area had the most hotel rooms in 2002?

.....[1]

(ii) Which area showed the biggest increase in number of hotel rooms between 1988 and 2002?

.....[1]

(c) Describe how the number of hotel rooms changed between 1988 and 2002 in the three areas shown on the map.

For Examiner's Use

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.....[3]

(d) Suggest reasons for the location of the tourist areas and their different growth rates.

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.....[3]

QUESTION 5 CONTINUES ON PAGE 12

(e) Fig. 6 shows the number of tourists arriving in Havana each year and the income from these tourists.

For Examiner's Use

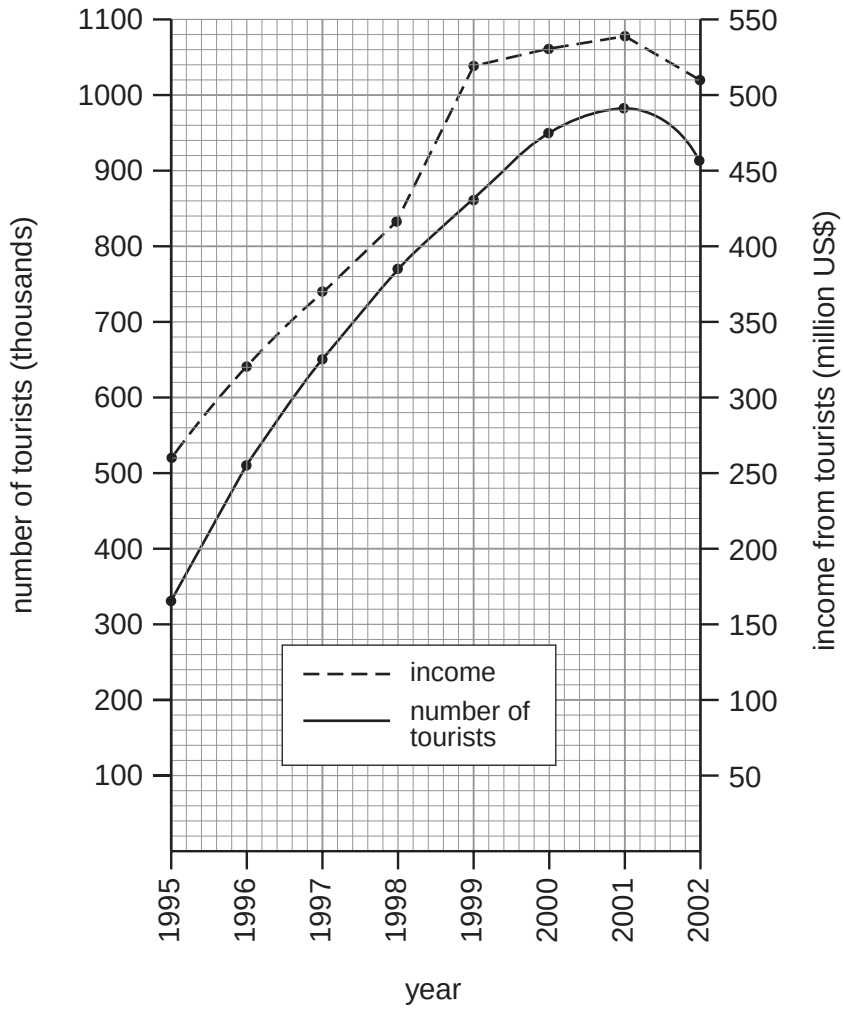

Fig. 6

Compare the changes in numbers of tourists and income from tourists between 1995 and 2002.

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.....[3]

[Total: 13 marks]

Section B

For Examiner's Use

Answer **one** question in this section.

6 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 types of ground surface influenced the air temperature and the relative humidity.

The two hypotheses used by the students were

- *'the school buildings increase the outside air temperature'*
- *'vegetation on the surface of the ground affects the relative humidity'*

(a) (i) The recording of air temperature and relative humidity took place in calm, stable conditions during November. Why was this important to the investigation?

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.....[2]

(ii) Study the map, Fig. 7 (Insert 2), which shows eight sites, labelled A to H, around the school buildings. These sites were used by the students for measuring the air temperature and relative humidity. Explain how school buildings in November (a winter month) may influence the outside air temperature at different sites.

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.....[2]

(b) (i) The school's Stevenson screen is located at Site A. Suggest reasons why this is the best location for a Stevenson screen.

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.....[2]

[Turn over

(ii) A traditional maximum-minimum (Six's) thermometer is located in the Stevenson screen. Use Fig. 8 to identify maximum, minimum and present temperature shown on the thermometer. Record these in the boxes on Fig. 8. [3]

For Examiner's Use

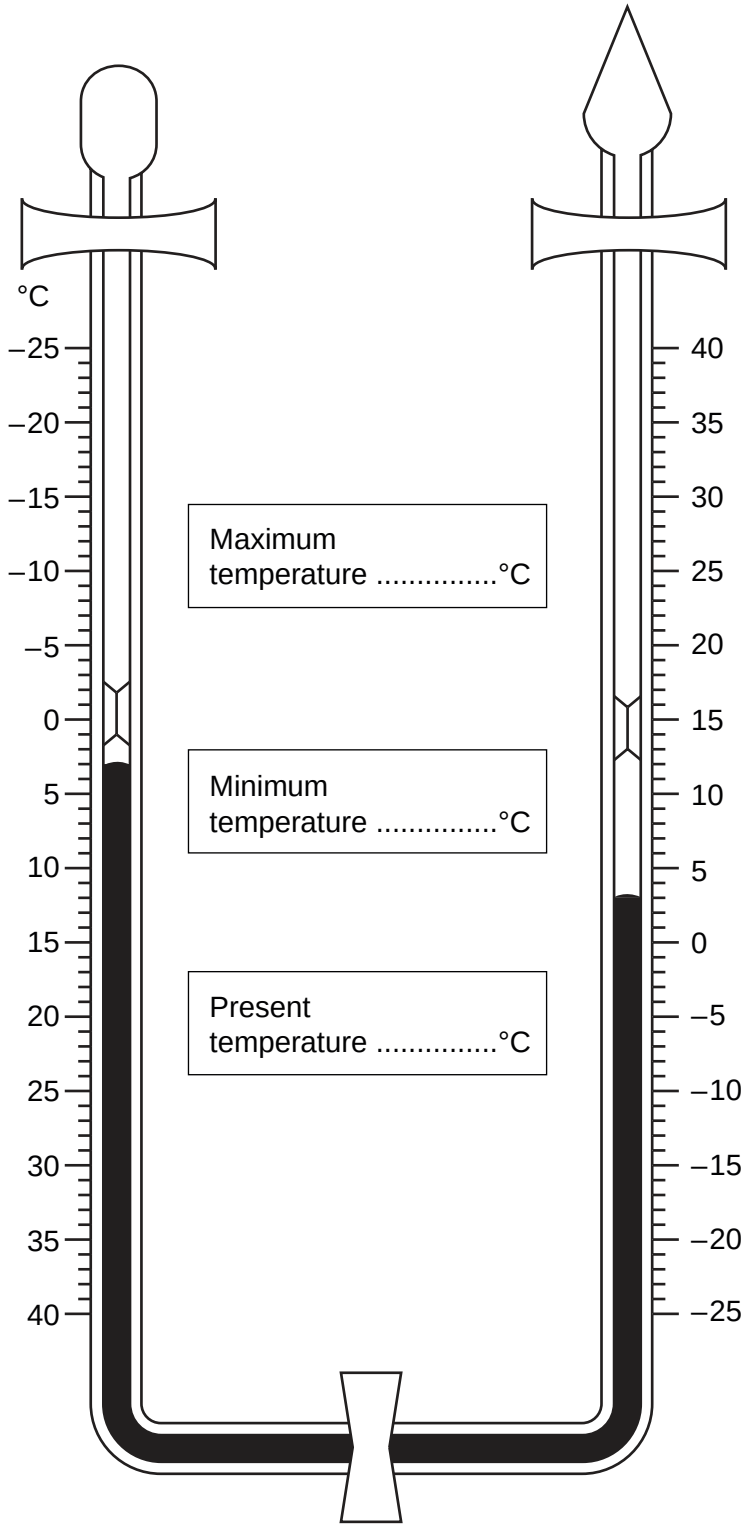

Fig. 8

(c) The air temperature at the other seven sites was measured using a hand-held digital thermometer. Study the instructions from the teacher (Fig. 9).

For Examiner's Use

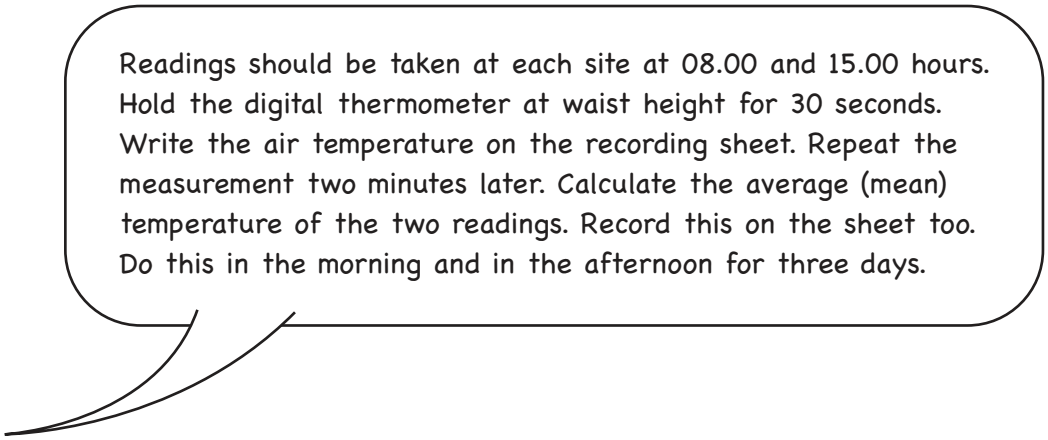

Fig. 9

(i) State a disadvantage of this method.

Disadvantage: .....

.....[1]

(ii) Suggest why the recordings were repeated each morning and afternoon.

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.....[1]

(d) Study Table 1, which shows the air temperature at each site.

For Examiner's Use

Table 1

Air temperature at each site (°C)

Site	A	B	C	D	E	F	G	H	Average temperature (08.00 and 15.00)
Distance from building	32 m	2 m	3 m	40 m	1 m	17 m	9 m	2 m	
Day 1, 08.00	5.0	5.3	5.8	5.3	5.7	5.5	5.8	6.5	5.6
Day 1, 15.00	12.0	11.8	13.0	11.6	11.5	11.8	12.0	12.3	12.0
Day 2, 08.00	3.0	3.8	3.8	3.0	3.5	2.9	3.2	3.5	3.3
Day 2, 15.00	3.0	3.4	4.4	3.4	4.6	3.3	3.3	3.8	3.6
Day 3, 08.00	3.0	3.1	4.5	2.8	4.2	3.1	2.9	3.0	3.3
Day 3, 15.00	5.0	5.9	7.0	4.6	6.2	5.1	5.3	5.8	5.6
Three day site average	5.2	5.5	6.4	5.1	5.9	5.2	5.4	5.8	

Use the average temperature (08.00 and 15.00) data to describe the changes in air temperature during the three days.

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(e) Study the scatter graph (Fig. 10), which shows the three day average air temperature at each site.

For Examiner's Use

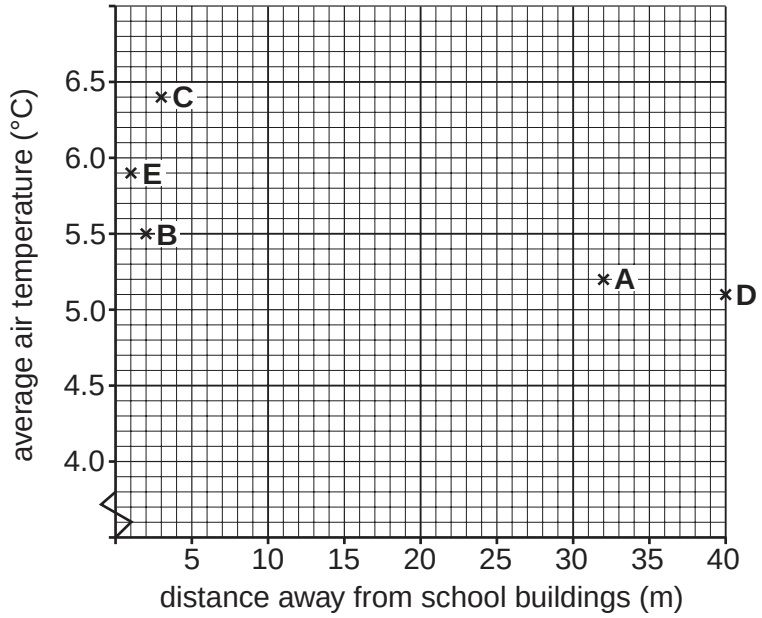

Fig. 10

(i) Use the three day site average temperatures from Table 1 to complete the scatter graph (Fig. 10) for Sites F, G and H. [3]

(ii) Draw a line of best fit on the graph. [1]

(iii) How does the distance from the school buildings influence the air temperature?

State evidence from Fig. 10 and the school map Fig. 7 (Insert 2) to support your answer.

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.....[3]

(f) At the same times of each day, the students also used a digital hygrometer to measure relative humidity at each site. The students observed and recorded the type of ground surface.

Study Table 2, which shows the results of the students' measurements and observations.

Table 2

Site	A	B	C	D	E	F	G	H
Average relative humidity	75%	77%	76%	75%	73%	73%	75%	77%
Type of ground surface	grass	small plants	concrete	tarmac	concrete	trees	near water	concrete

Is there a higher relative humidity at the sites where there is vegetation on the surface? Use the space below, and the average relative humidity data in Table 2 to calculate your result and state your answer.

Space for calculations and answer

Average relative humidity for sites with vegetation	
Average relative humidity for sites without vegetation	
Is there a higher relative humidity at the sites where there is vegetation on the surface? Your answer	

[2]

(g) (i) Does the data collected by the students support the original hypotheses?

For Examiner's Use

- *'the school buildings increase the outside air temperature'*
- *'vegetation on the surface of the ground affects the relative humidity'*

Ring your answer for each hypothesis and explain your decision.

Hypothesis 1 – '*the school buildings increase the outside air temperature'*

Answer YES TO SOME EXTENT NO

Reason .....

.....

.....

Hypothesis 2 – *'vegetation on the surface of the ground affects the relative humidity'*

Answer YES TO SOME EXTENT NO

Reason .....

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.....[4]

(ii) Critically evaluate the data collection methods used in this investigation.

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.....[3]

[Total: 30 marks]

7 Students investigated the impact of tourists on the settlement of Pescasseroli in the Abruzzi National Park in central Italy. The hypothesis for the investigation is *'the tourists who visit the National Park have a positive impact on the settlement of Pescasseroli'*. Information about the settlement of Pescasseroli is shown below.

For Examiner's Use

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

Fig. 11

(a) The students used the Internet to find out about the settlement. The information in Fig. 11 is from this secondary source of data. They also collected primary data.

(i) What is meant by a *primary* source of data?

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.....[1]

(ii) State **two** examples of a primary source of data.

.....[1]

(b) The students designed questionnaires for the tourists and residents to assess the impact of tourists. Fig. 12 (Insert 2) shows the questionnaires.

Question T1 (i) to the tourists was designed to investigate the method of transport used by tourists to reach the National Park. Fig. 13 is a pie chart of the results.

Method of transport used by tourists

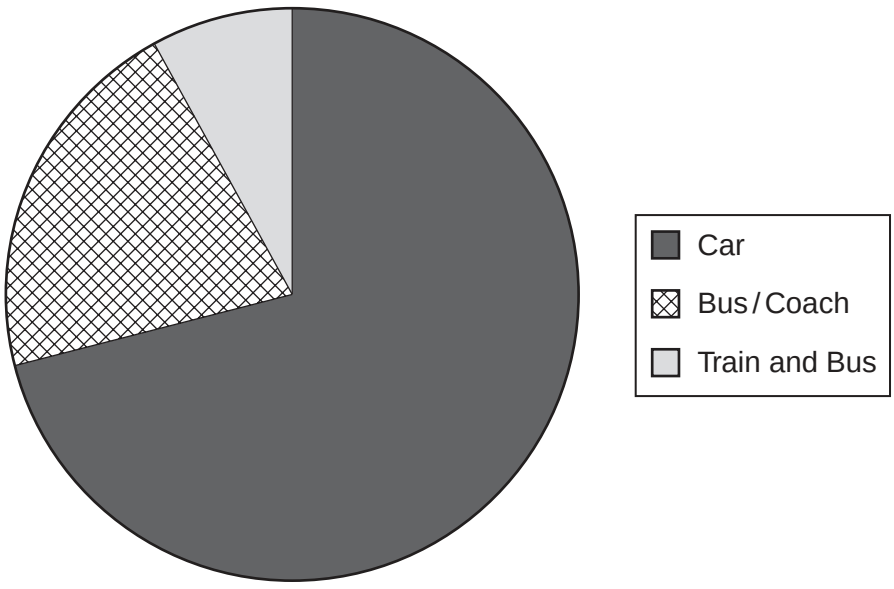

Fig. 13

(i) Describe the pattern shown by these results.
Suggest **one** reason for this pattern.

Describe .....

.....

Reason .....

.....[3]

(ii) Fig. 14 (Insert 2) shows the results of the questionnaire for tourists. Use the results from question T1 (ii) to complete the pictograph on Fig. 15, to represent the tourists' opinions about parking problems in the settlement. [2]

Tourists' opinions about parking

☹ Very difficult	
😐 A little difficult	
☺ No problem	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺

☹ or 😐 or ☺ = 4 people

Fig. 15

(c) Study question T2 and question T3 of the questionnaire for tourists, Fig. 12 (Insert 2). Explain why these are important questions for the investigation.

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.....[3]

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(d) Study the results of question T4 of the questionnaire for tourists, Fig. 14 (Insert 2). Draw a bar graph on Fig. 16 to show the main reasons why visitors come to the Abruzzi National Park. [4]

For Examiner's Use

Reasons for visiting the Abruzzi National Park

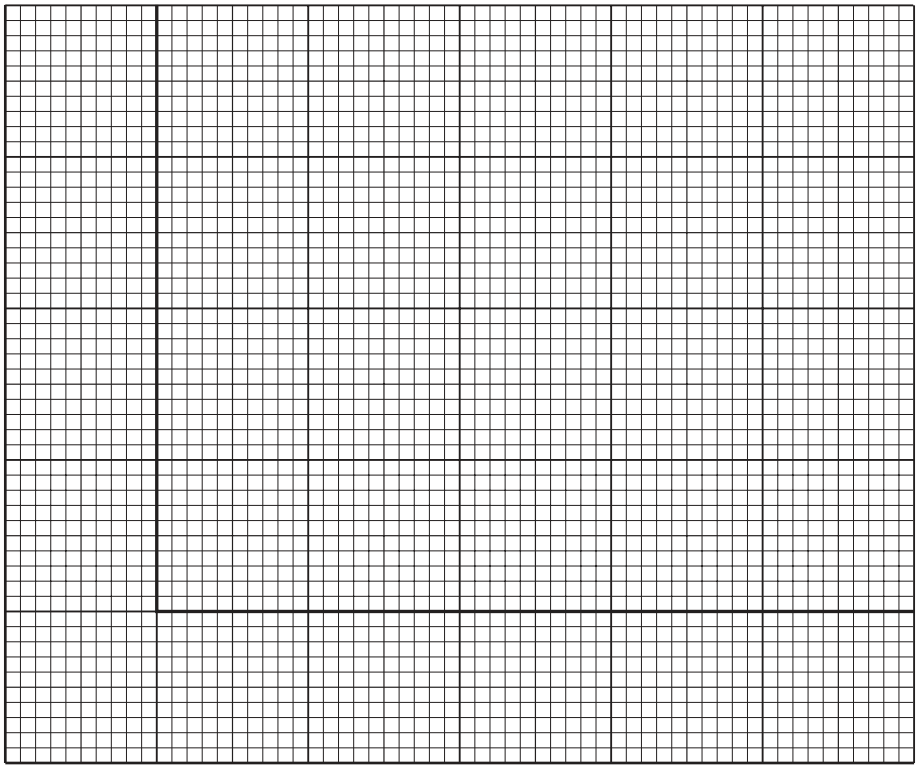

Fig. 16

(e) **(i)** Use the age and gender information from Fig. 14 (Insert 2) to explain whether the tourist questionnaire results in this sample are reliable and representative.

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.....[2]

(ii) Suggest how the main reason for visiting the National Park may change at a different time of the year or at a different time of the day.

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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. 17

(f) Study the results of the questionnaire for tourists, Fig. 14 (Insert 2) again, together with the results of the questionnaire for residents, Fig. 17.

For Examiner's Use

Write a conclusion to this investigation, ensuring that you state whether you agree with the original hypothesis, that *'the tourists who visit the National Park have a positive impact on the settlement of Pescasseroli'*. You must refer to data results from both questionnaires to support your comments.

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.....[6]

(g) Suggest, in detail, how the students could collect data to investigate the extent that tourists may increase the litter, noise and traffic in the settlement.

For Examiner's Use

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.....[5]

[Total: 30 marks]

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