Cambridge O Level

Cambridge International Examinations
Cambridge Ordinary Level

CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

GEOGRAPHY **2217/23**

Paper 2 **October/November 2017**

2 hours 15 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Calculator
Protractor
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 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 this booklet. The question number(s) must be clearly shown.

Section A
Answer **all** questions.
Section B
Answer **one** question.

The Insert contains Photograph A for Question 5; Figs. 8, 9 and 13 and Tables 2 and 3 for Question 7; and Fig. 14 and Tables 4, 5, 6 and 7 for Question 8.
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.

This document consists of **30** printed pages, **2** blank pages and **1** Insert.

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CAMBRIDGE International Examinations

Section A

Answer **all** questions in this section.

1 Study the 1:50 000 map of Snaefell, Isle of Man.

(a) Compare the features of the west coast and the east coast by completing the table. Put one tick (✓) on each row.

	West coast	East coast	Both	Neither
Example: Stack		✓		
Bay				
Flat rock				
Headland				
River mouth				
Spit				

[5]

(b) **(i)** Measure the distance along the Snaefell Mountain Railway **from** Summit Station **to** Bungalow Station. Give your answer to the nearest kilometre.

.....[1]

(ii) Give the bearing **from** Summit Station **to** Bungalow Station.

.....[1]

(iii) Give the six figure grid reference of Summit Station.

.....[1]

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(c) Study the area of the map shown on Fig. 1.

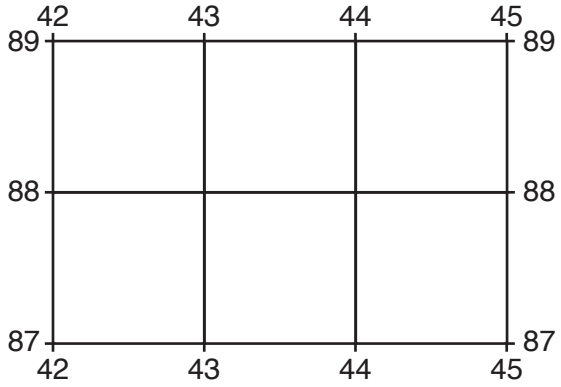

Fig. 1

Describe the relief and drainage in this area.

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(d) Study the area of the map shown on Fig. 2.

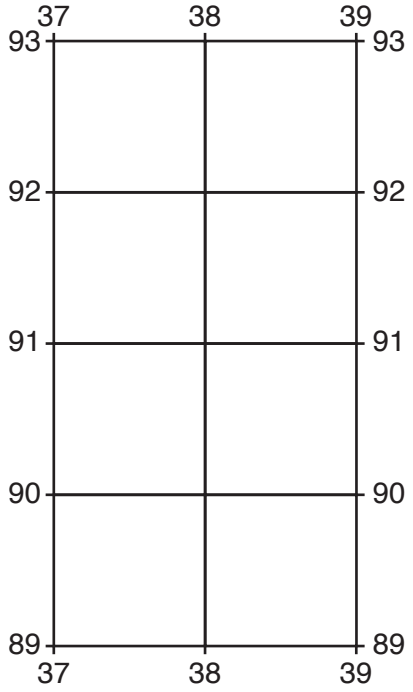

Fig. 2

Describe the human features of the valley called Sulby Glen.

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.....[6]

[Total: 20 marks]

TURN PAGE FOR QUESTION 2

2 Study Fig. 3, which shows international migrant population for six countries in 2013.

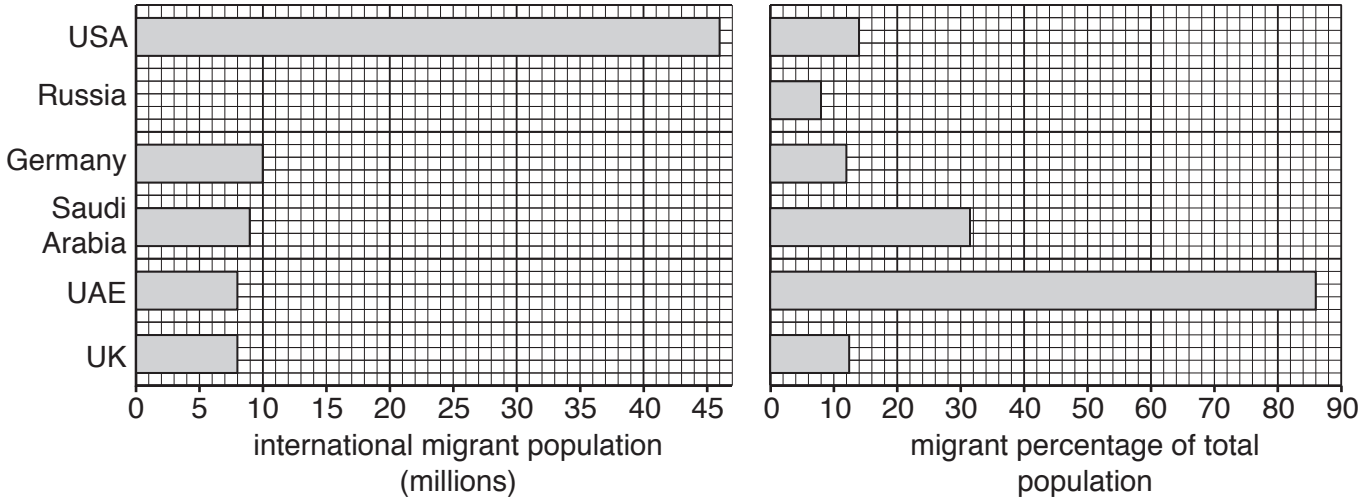

Fig. 3

(a) **(i)** What is international migration?

.....

.....[1]

(ii) Give a reason for involuntary international migration.

.....

.....[1]

(b) **(i)** Complete Fig. 3 to show an international migrant population of 11 million in Russia. [1]

(ii) Rank the countries in order of their migrant percentage of total population from highest to lowest.

Highest .....

.....

.....

.....

.....

Lowest ..... [1]

(c) Use the information in Fig. 3 to complete the sentences below. Circle the correct answers.

Example: There are 10 million international migrants in Germany / Russia / USA / UK.

UAE has 8 million / 8% / 8 billion international migrants.

It is a small country, with a total population of only 9.3 million, so migrants make up 86% of the population.

The USA has the largest / oldest / smallest / youngest migrant population.

As its population of 320 million is larger / similar / smaller compared to the population of UAE, migrants in the USA are only 46% / 14 million / 14% of the population. [4]

[Total: 8 marks]

3 Study Fig. 4, which shows a maximum-minimum thermometer.

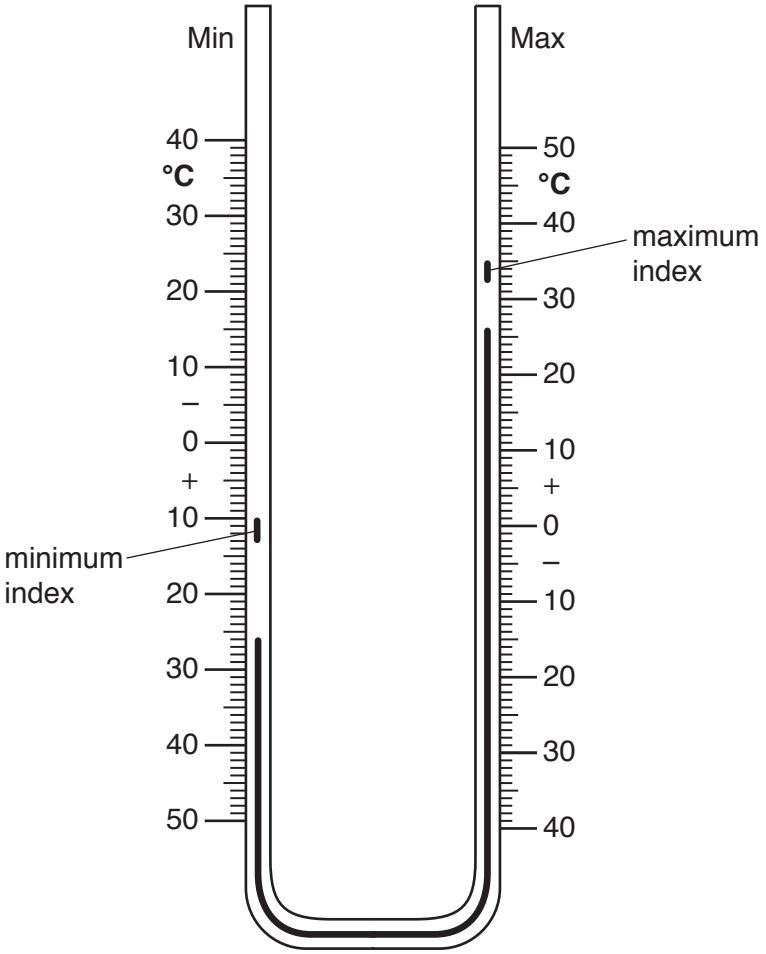

Fig. 4

(a) **(i)** What is the current temperature shown by the thermometer?

.....[1]

(ii) Calculate the range of temperature since the thermometer was last reset. Show your working.

Reading of maximum index: .....°C

Reading of minimum index: .....°C

Range of temperature: .....°C

[3]

(b) **(i)** The thermometer should be reset at the same time each day. Explain how to reset the thermometer.

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.....[2]

(ii) Why should the thermometer be reset at the same time each day?

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.....[1]

(c) Why should the thermometer be kept in a Stevenson screen?

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.....[1]

[Total: 8 marks]

4 Study Fig. 5, which shows a section of the Earth's surface.

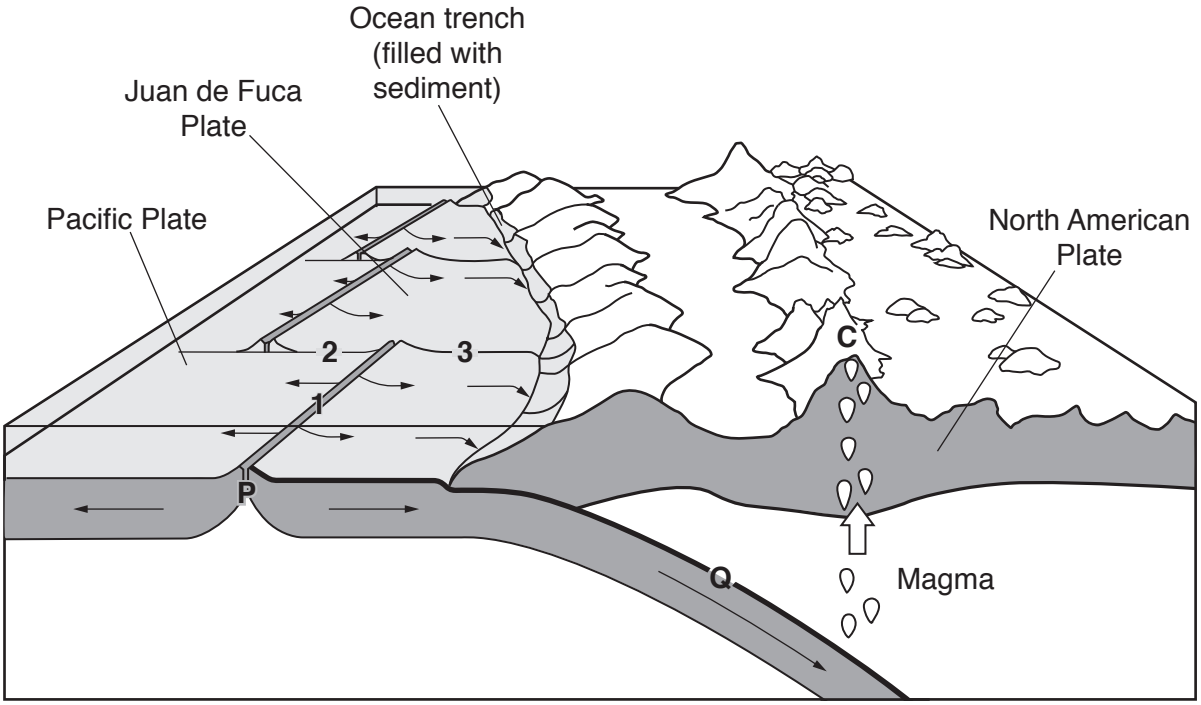

Fig. 5

(a) **(i)** What type of boundary is found at **P**? Circle the correct answer.

conservative constructive destructive [1]

(ii) What type of boundary is found at **Q**? Circle the correct answer.

conservative convergent divergent [1]

(b) What process is taking place beneath the Earth's surface at **Q**?

.....[1]

(c) Explain why earthquakes occur at **1**, **2** and **3**.

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.....[1]

(d) Why do volcanoes form at **C**?

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.....[4]

[Total: 8 marks]

5 Study Photograph A (Insert), which shows part of a farm.

(a) **(i)** What type of farming is shown in Photograph A? Circle the correct answer.

arable mixed pastoral [1]

(ii) Give **two** outputs from this type of farming.

.....

.....[2]

(b) Fig. 6 is a sketch of the area shown in Photograph A. Annotate Fig. 6 to show why the land is **not** vulnerable to soil erosion. [3]

Fig. 6

(c) The farmer has decided to fence off part of his field and turn it into a campsite. Campers would be in favour of this plan. Suggest another group of people who would be in favour of this plan and explain why they agree with it.

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.....[2]

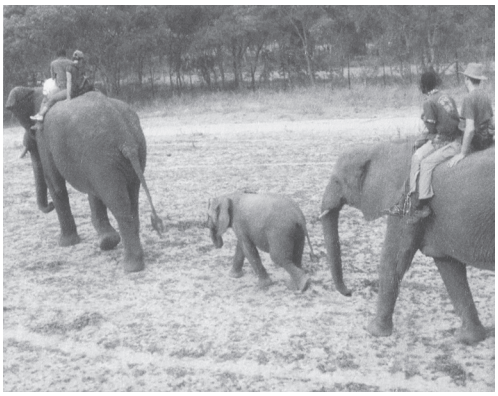
[Total: 8 marks]

6 Study Fig. 7, which shows information about a tourist attraction in southern Africa.

The Game Park

The park is home to a wide range of large and small African animals, including sable, tsessebe, kudu and wildebeest, plus buffalo, zebra, giraffe and warthogs; not forgetting our resident herd of elephants, our lions and hyena, as well as our famous black and white rhinos.

You can also view our superb birdlife both within the woodlands and at many dams, which can be enjoyed on foot, on horseback or in one of our vehicles.



Activities

Whether you decide to come for a day trip or to stay the night, there is more than enough to keep the whole family entertained. On our daily game drive you can see a variety of plains game.

Overnight guests can relax at sunset with a drink or two at the lookout before heading back to the lodge for dinner. Early risers and the adventurous can head out in the morning for an elephant ride and enjoy a bird's-eye view of the wildlife while riding on one of these magnificent animals. Guests can also take a guided nature walk to more closely experience our birds, small animals and plant life.

Fig. 7

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(a) **(i)** Identify **two** natural tourist attractions shown on Fig. 7.

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.....[2]

(ii) Describe the human tourist attractions shown on Fig. 7.

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.....[4]

(b) Suggest **two** benefits of organised tourism at the park.

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.....[2]

[Total: 8 marks]

Section B

Answer **one** question from this section.

7 Students in the UK visited a coastal area where a spit had formed. Fig. 8 (Insert) shows a map of the area.

(a) Which **one** of the following is the correct description of a spit? Tick (✓) your answer.

Description	Tick (✓)
a resistant rock that is separated from the land by erosion	
a tall, steep cliff which extends out into the sea	
an inlet which is sheltered on both sides by cliffs	
a sheltered area of coastline where sand collects	
a ridge of sand or shingle attached to the land at one end	

[1]

The students decided to test the following hypotheses:

Hypothesis 1: *The spit has been formed by constructive waves moving beach material along the coast.*

Hypothesis 2: *The coastal area is being managed to encourage sustainable tourism.*

Sustainable tourism meets the needs of people now and protects the area for future generations.

(b) Before they began their fieldwork the students discussed safety on the beach with their teacher.

Suggest **three** precautions the students or teacher needed to take to reduce the risk of accidents.

1 .....

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2 .....

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3 .....

.....[3]

(c) To investigate **Hypothesis 1** the students needed to know more about the waves along the coastline. They had learned that waves are either constructive or destructive.

Wave frequency is the number of waves which break on the shore per minute.

The wave frequency of constructive waves is fewer than 10 waves per minute and the wave frequency of destructive waves is 10 or more waves per minute.

(i) Describe a method the students could use to measure wave frequency.

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.....[3]

(ii) The results of the students' measurements of wave frequency are shown in Table 1 below.

Table 1

Results of students' measurements

Measurement number	Waves per minute
1	6
2	8
3	8
4	7
5	8
6	6
7	9
8	7
9	8
10	7
Average	

Calculate the average (mean) number of waves per minute. **Insert your answer** into Table 1. [1]

(d) The students had learned that longshore drift is important in moving beach material along the coast.

(i) Which **one** of the following statements about longshore drift is correct?
Tick (✓) your answer.

Statement	Tick (✓)
Waves approach the coastline at an angle.	
Swash moves material down the beach.	
Longshore drift occurs in deep water.	
Backwash moves material up the beach.	
The direction of longshore drift depends on the tide.	

[1]

(ii) To investigate longshore drift the students used two fieldwork methods. These are described in Fig. 9 (Insert), which is part of a student's fieldwork notes.

Suggest **one** disadvantage of method 1.

.....

.....[1]

(iii) Suggest **one** way the students could have made sure that their results using method 2 were accurate.

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.....[1]

(iv) The results of method 1 are shown in Table 2 (Insert). Use these results to **plot the average distance moved along the beach** in Fig. 10 below. [1]

Results of method 1

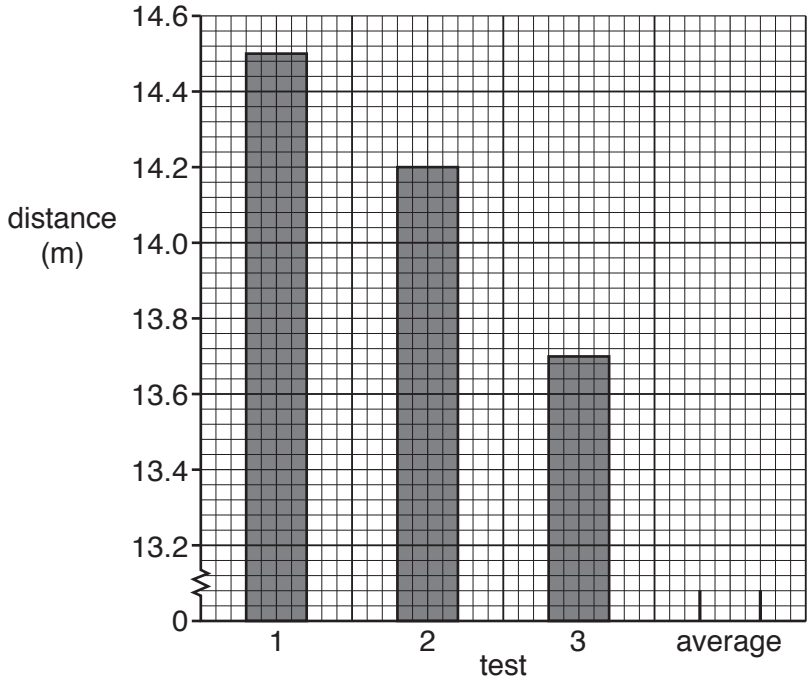

Fig. 10

(v) The results of method 2 are shown in Table 3 (Insert). Use these results **to complete Fig. 11** below. [1]

Height of beach material either side of the two groynes

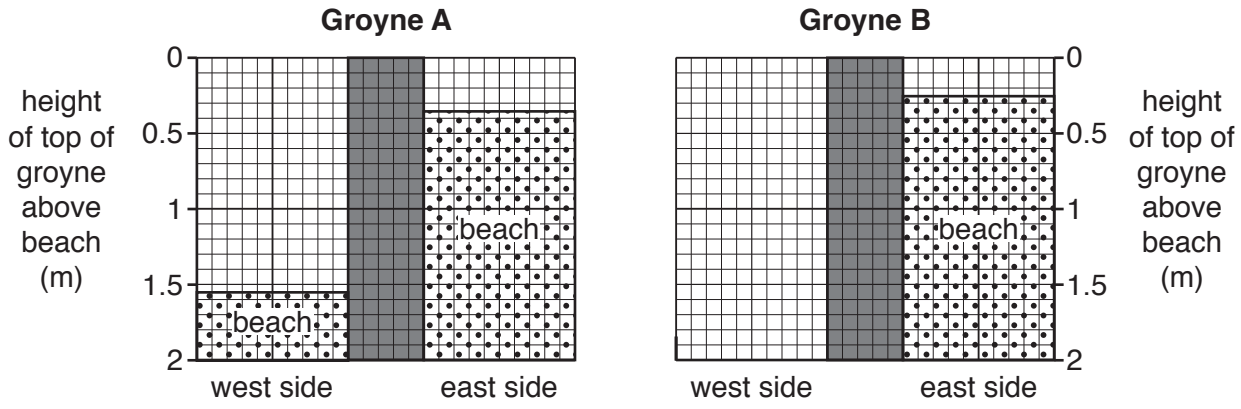

Fig. 11

(vi) What conclusion would the students make about **Hypothesis 1:** *The spit has been formed by constructive waves moving beach material along the coast*? Support your answer with evidence from Tables 1, 2 and 3, and Figs. 10 and 11.

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.....[4]

(vii) Look again at Fig. 8 (Insert). Suggest why the groynes have been built on the beach.

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(e) The coastline where the students did their fieldwork attracts many visitors. To investigate **Hypothesis 2:** *The coastal area is being managed to encourage sustainable tourism*, the students needed to assess the types and amount of management found on and near the beach.

(i) First they recorded evidence of management methods in the tally chart shown in Fig. 12 below. **Complete the tally chart** with their result of counting **eight** litter bins in the area. [1]

Tally chart

Evidence of management	Tally	Number counted
board-walk	~~////~~	5
café	/	1
campsite	//	2
car park	//	2
direction signpost	~~////~~ ////	9
fence	///	3
footpath	////	4
information board	//	2
litter bin		
recycling point	/	1
toilets	/	1
tourist information centre	/	1

Fig. 12

(ii) Another student located some of this evidence on a sketch map of part of the area near the beach. This is shown in Fig. 13 (Insert).

Describe the location of the footpaths shown on the map.

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.....[2]

(iii) Is **Hypothesis 2:** *The coastal area is being managed to encourage sustainable tourism* true or false? Circle your answer below.

True False

Explain your conclusion. Include evidence from Figs. 12 and 13.

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.....[4]

(f) For extension work the students drew the beach profile from the edge of the sea to the top of the beach. They used a tape measure, two ranging poles and a clinometer. Describe how they made their measurements.

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.....[4]

[Total: 30 marks]

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8 Students in India wanted to find out more about people who had migrated to the city of Jaipur from within India and lived in squatter settlements made up of homemade shelters on pavements or next to roads.

The students decided to test the following hypotheses:

Hypothesis 1: *More migrants who live in the squatter settlement came from the area around Jaipur than areas further away.*

Hypothesis 2: *The quality of life of residents in the squatter settlement is poor.*

(a) To investigate the hypotheses the students used a questionnaire with 10% of the residents of the squatter settlements.

(i) Describe a sampling method for how the students could choose people to complete the questionnaire. Explain why you have chosen this method.

Name of sampling method .....

Description of method .....

.....

Explanation for choice .....

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.....[3]

(ii) Explain why a 10% sample (300 people) is an appropriate number of residents to answer the questionnaire.

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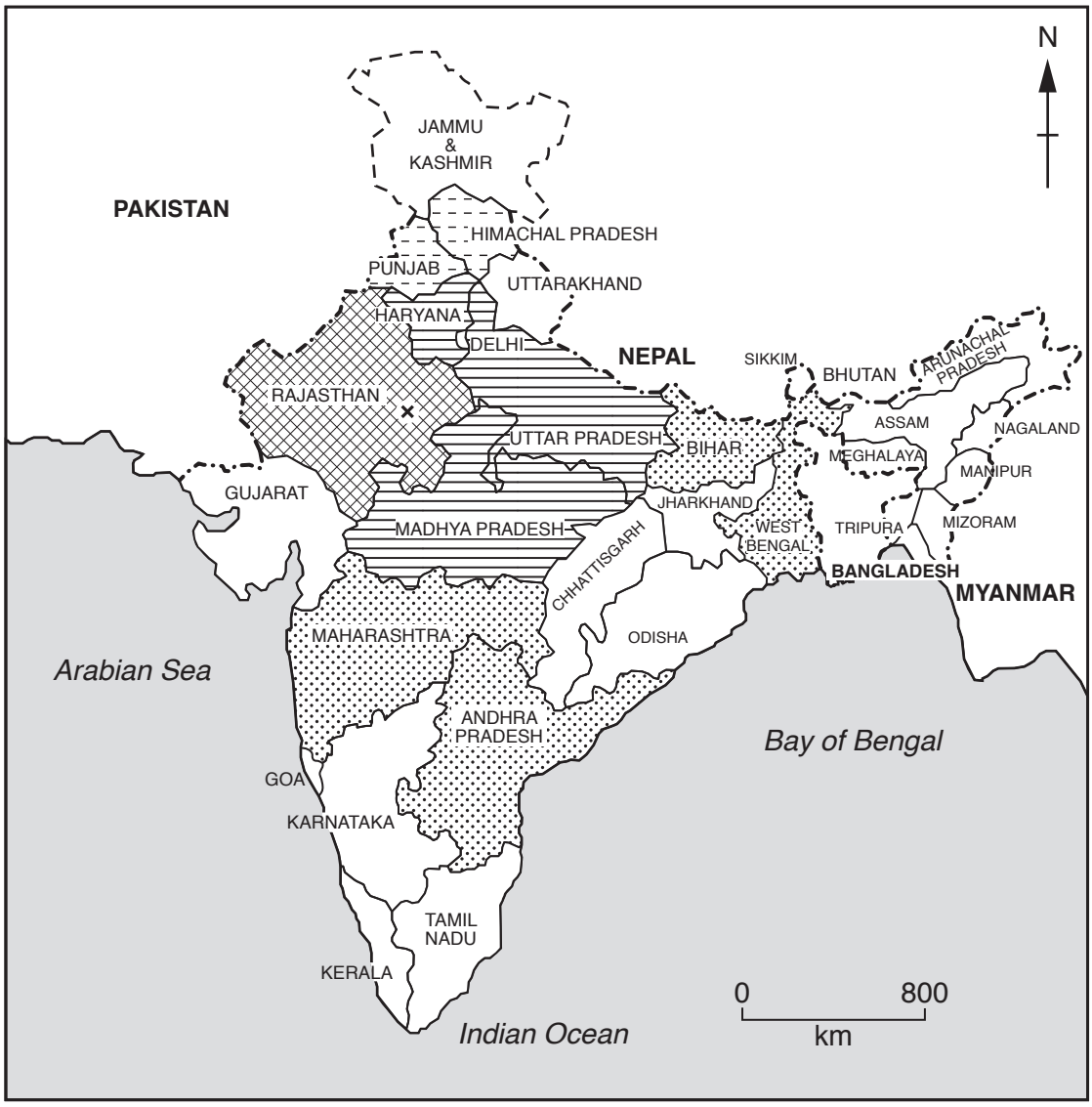
.....[2]

(b) The questionnaire is shown in Fig. 14 (Insert).

(i) The results of Question 1 (Which state did you come from when you moved to Jaipur?) are shown in Table 4 (Insert). **Complete Fig. 15** below by plotting the data for Gujarat. [1]

States from which migrants to the squatter settlement came



Key

× Jaipur

number of migrants

- more than 100
- 51–100
- 21–50
- 11–20
- 1–10
- 0

- international boundary
- state boundary
- disputed boundary

Fig. 15

(ii) Suggest **one** other suitable method to display the results of Question 1 on a map of India.

.....[1]

(iii) What is the correct conclusion about **Hypothesis 1:** *More migrants who live in the squatter settlement came from the area around Jaipur than areas further away*? Support your answer with evidence from Fig. 15 and Table 4.

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.....[3]

(iv) Suggest reasons for the pattern of migration shown in Fig. 15.

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.....[2]

(c) To investigate **Hypothesis 2:** *The quality of life of residents in the squatter settlement is poor*, the students used the results of Questions 2, 3 and 4 in their questionnaire.

(i) The students plotted their results of Question 2 (Where do you get most of your water from?) and Question 3 (What is your main method of lighting?) in pie graphs shown in Figs. 16A and 16B below. Use the data in Table 5 (Insert) to **complete the pie graph** in Fig. 16A. [3]

Main source of water

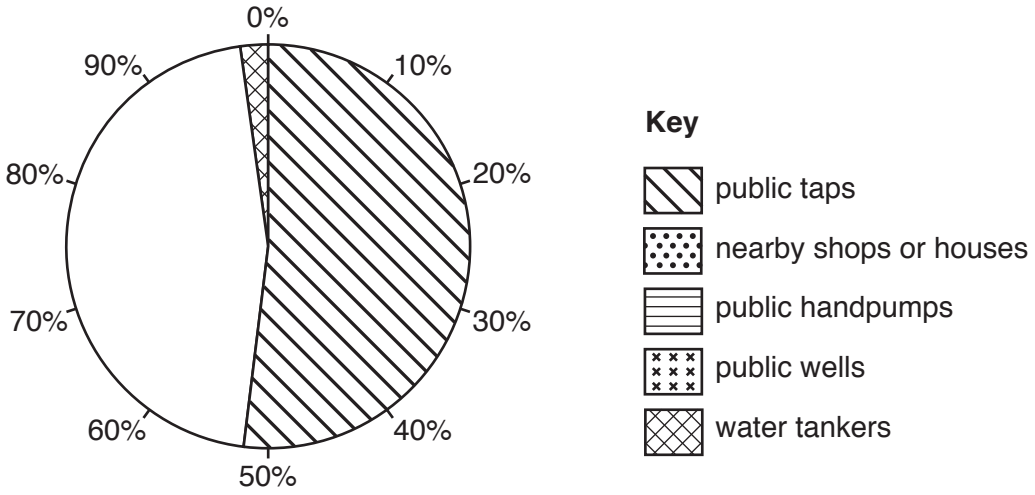

Fig. 16A

Main method of lighting

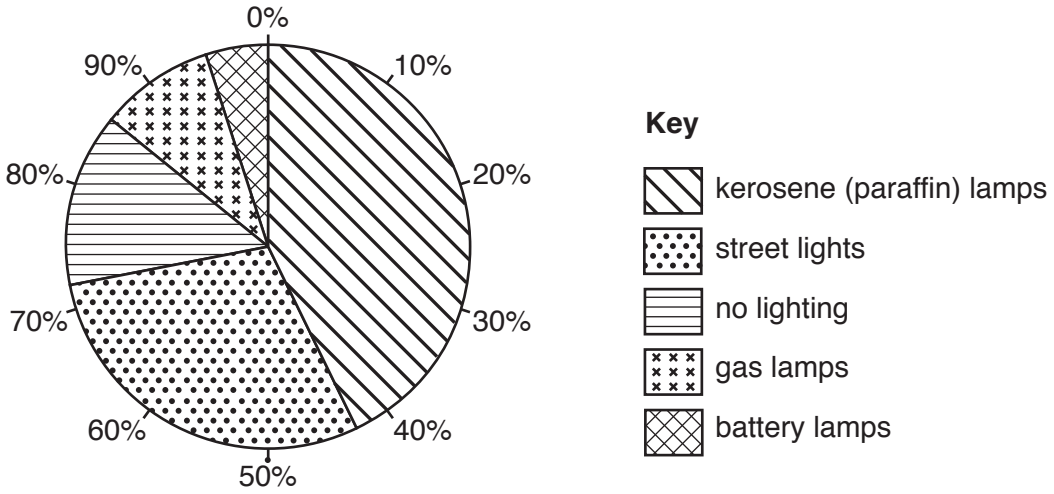

Fig. 16B

(ii) In Fig. 16B what percentage of residents have no lighting?

.....% [1]

(iii) The answers to Question 4 (How do you dispose of your rubbish?) are shown in Table 6 (Insert). **Plot the result** for 'Throw it on the road' in Fig. 17 below. [1]

Method of rubbish disposal

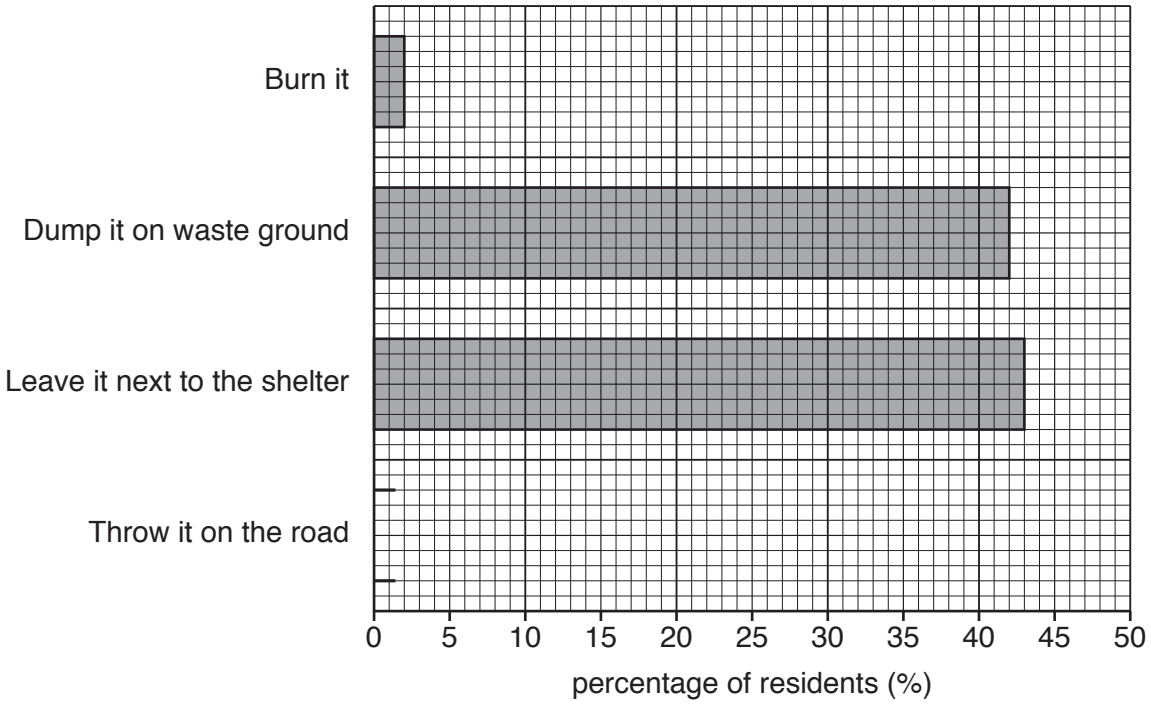

Fig. 17

(iv) The students decided that **Hypothesis 2:** *The quality of life of residents in the squatter settlement is poor* was true. Support this decision with information from Figs. 16A, 16B and 17.

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.....[4]

(d) **(i)** The answers to Question 5 (What is the job of the main income earner in the family?) are shown in Table 7 (Insert). Use the results to **complete Fig. 18** below. [3]

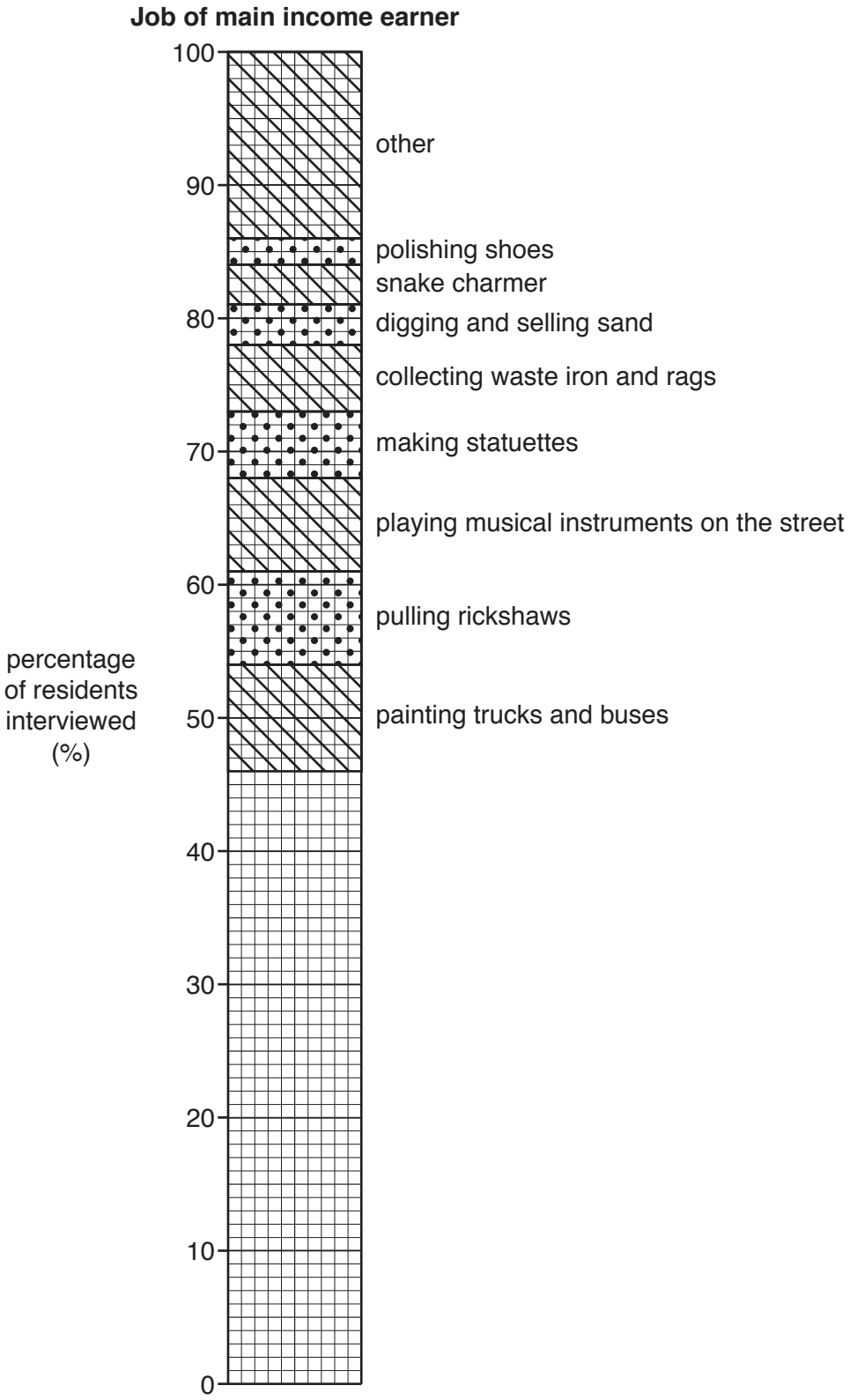

Fig. 18

(ii) Why do the jobs shown in Fig. 18 help to support the students' conclusion that residents in the squatter settlement have a poor quality of life?

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.....[2]

(e) To extend their work the students discussed ways to solve the problem of people living on pavements or next to roads. They suggested two possible solutions which are shown in Fig. 19 below.

Two possible solutions suggested by students

Solution A Build low-cost houses with basic water, sewage and power supplies which are cheap to rent. Solution B Police remove the people living on the pavements or next to roads and council workers clear the area of rubbish.

Fig. 19

Explain why solution A is better for people living on pavements or next to roads than solution B.

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.....[4]

[Total: 30 marks]

Additional Pages

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

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