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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

GEOGRAPHY **2217/02**

Paper 2 **May/June 2007**

2 hours 15 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Calculator
Protractor

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 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.
The Insert contains Fig. 9 for Question 7.
The Survey Map Extract and the Insert 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.

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Section A	
Q1	
Q2	
Q3	
Q4	
Q5	
Section B	
Q6	
Q7	
Total	

This document consists of **24** printed pages and **1** Insert.

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Section A

Answer **all** questions in this section.

1 Study the 1:25 000 map extract of part of Mauritius.

(a) Give the six figure grid reference for the sugar factory to the west of Bambous.

..... [1]

(b) How far is it **by road** from the west side of the sugar factory to 831910, next to the public beach?

.....[1]

(c) In what direction is the public beach from the sugar factory?

.....[1]

(d) What feature is there at 852932?

.....[1]

(e) Describe the land-use and relief in each of the following squares:

(i) 8794 .....

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.....[3]

(ii) 9192 .....

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.....[4]

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(f) **(i)** What is the height of La Ferme reservoir?

.....[1]

(ii) Use map evidence to suggest why this site was chosen for a reservoir.

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.....[2]

(iii) What map evidence is there that the reservoir held more water in the past?

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.....[2]

(iv) Give map evidence to show what the water is used for.

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.....[1]

(g) Describe the layout of the settlement of Bambous.

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.....[3]

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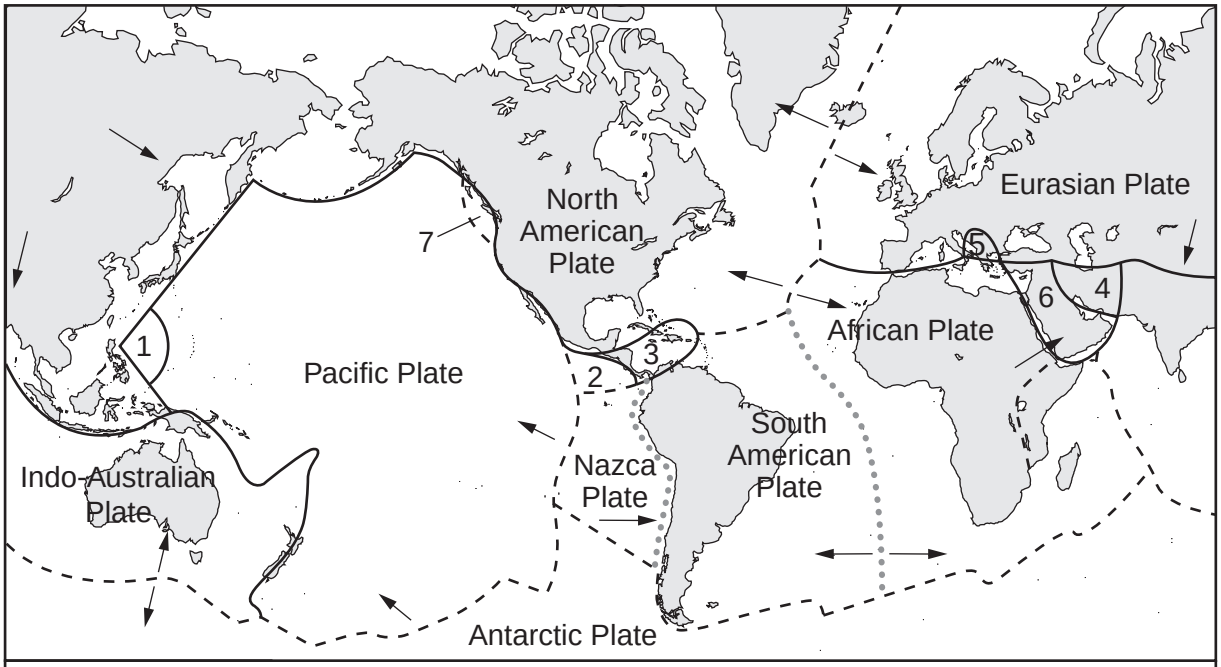
2 Study Figs 1 and 2.

Major plate boundaries



Key

- constructive boundary
- destructive boundary
- direction of movement

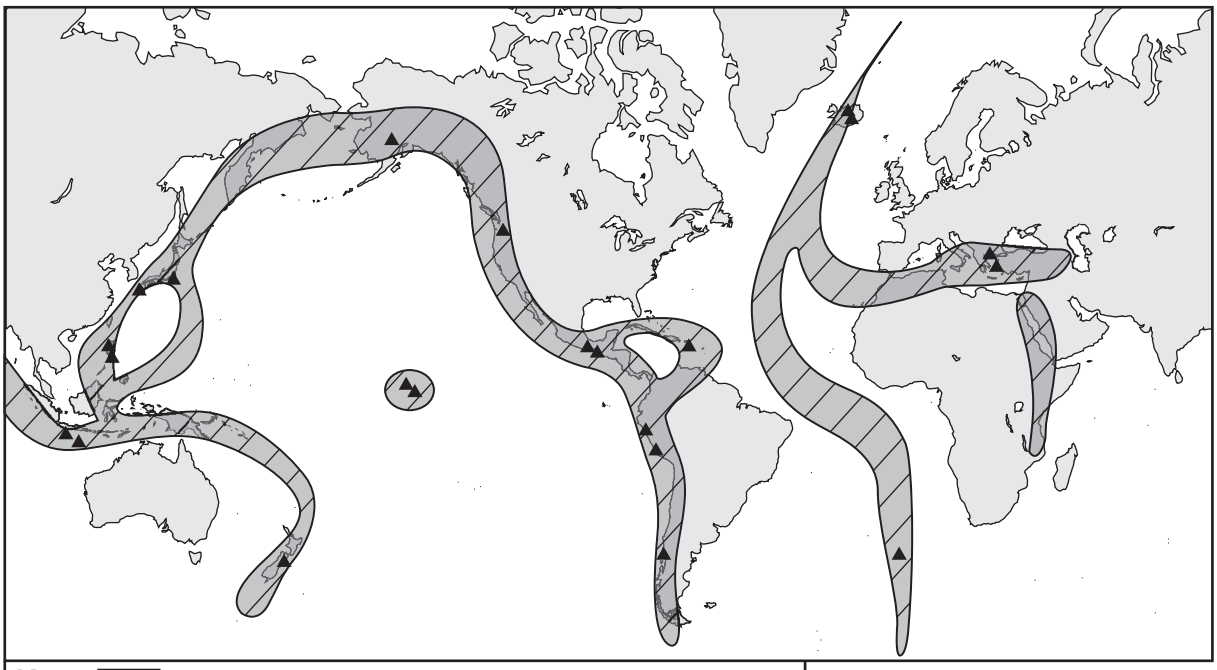
Numbered plates

1 Philippines
2 Cocos
3 Caribbean
4 Iran
5 Adriatic
6 Arabian
7 Juan de Fuca

Constructive boundaries are where plates are moving apart. Destructive boundaries are where the plates are moving together; these are also known as subduction zones.

Fig. 1

Volcanic activity



Key

areas of volcanic activity ▲ volcanoes

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(a) On Fig. 1, two of the boundaries around the South American plate are shown as lines.
On Fig. 1, using the symbols in the key, draw over the top of the dotted lines to ma these as either constructive or destructive boundaries. [2]

(b) Describe the distribution of constructive boundaries.

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(c) Compare Fig. 1 with Fig. 2. What similarities and differences do you notice between the two maps?

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.....[4]

(d) Suggest reasons for the relationship between volcanic activity and plate boundaries.

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.....[2]

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3 Study Fig. 3, which shows some of the general processes at work on the coast. Photog shows a stretch of coast.

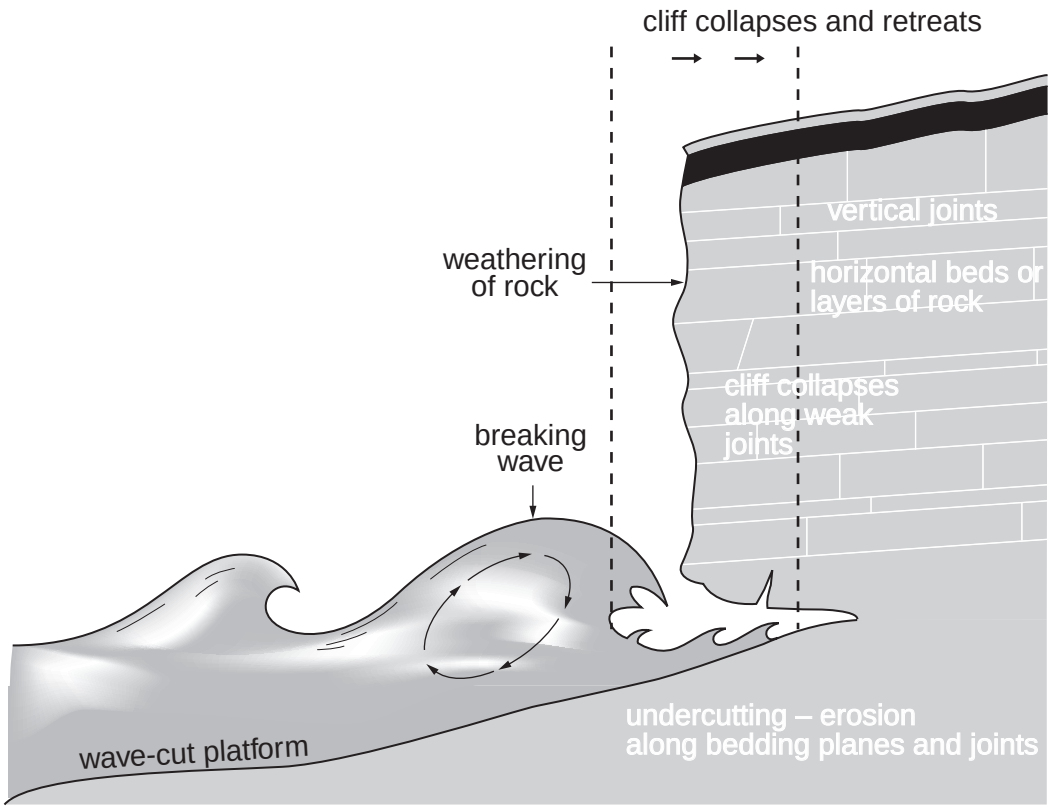

Fig. 3

Photograph A

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(a) Mark the following features **on** Photograph A, using the letters shown:

(i) cliff **C**;

(ii) wave-cut platform **P**;

(iii) a place where weathering is taking place **W**;

(iv) a place where wave erosion is active **E**.

[4]

(b) Suggest what happens to material that is eroded from the cliffs by the sea.

.....

.....[1]

(c) Why does most erosion take place at high tide?

.....

.....[1]

(d) The cliffs in Photograph A are not as steep as those in Fig. 3. Suggest an explanation for this difference.

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.....[2]

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4 Study Fig. 4, which shows population growth rates across the world.

(a) Give the rate of growth for the following countries:

(i) Brazil;

.....[1]

(ii) Tanzania.

.....[1]

(b) Use the information below to complete Fig. 4.

country	% increase
France	0.3%
Nigeria	2.7%

[2]

(c) **(i)** Describe the distribution of areas with growth rates of less than 1.6%.

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.....[4]

(ii) Suggest possible explanations for this distribution.

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.....[4]

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Average annual population growth rates

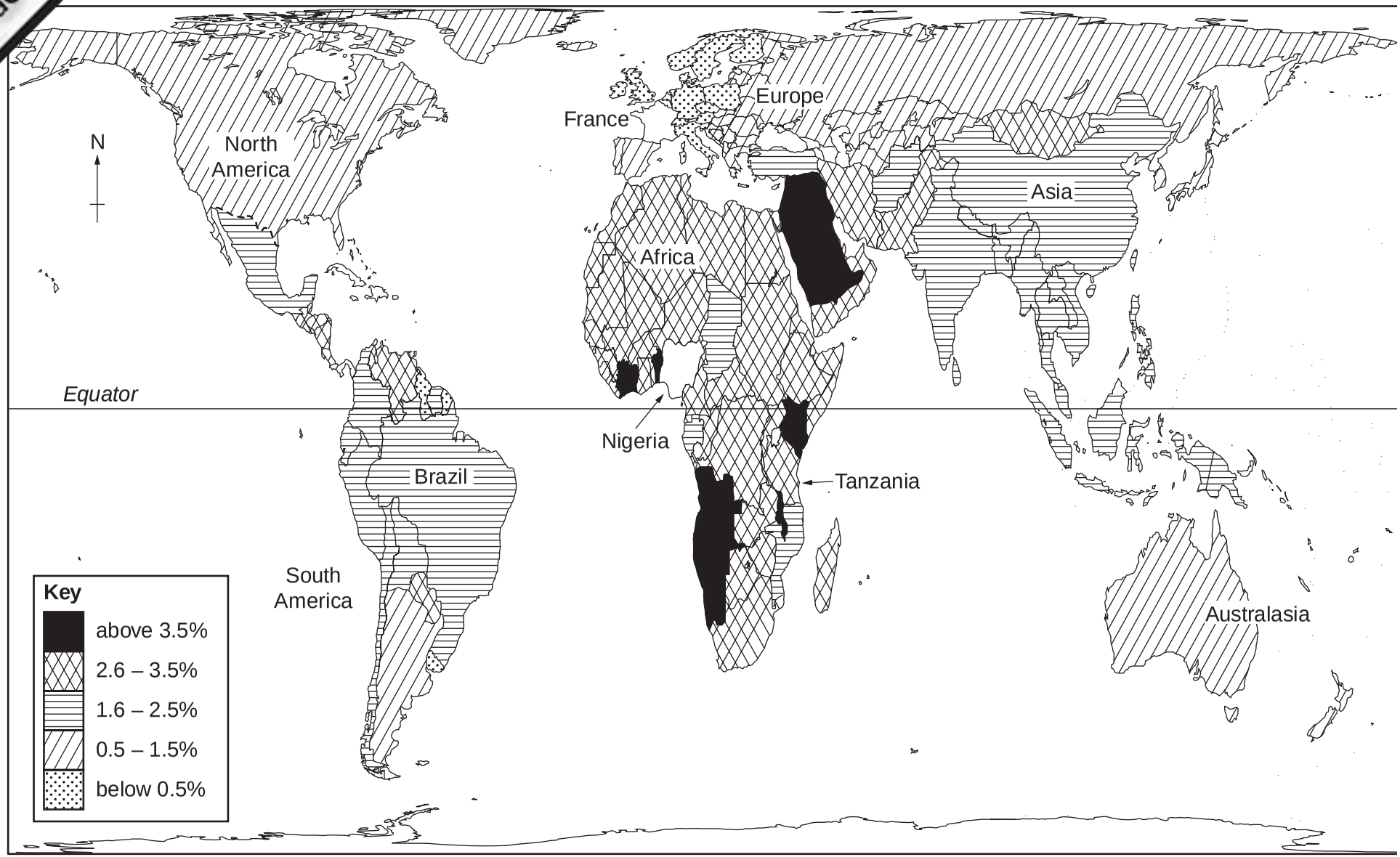

Fig. 4

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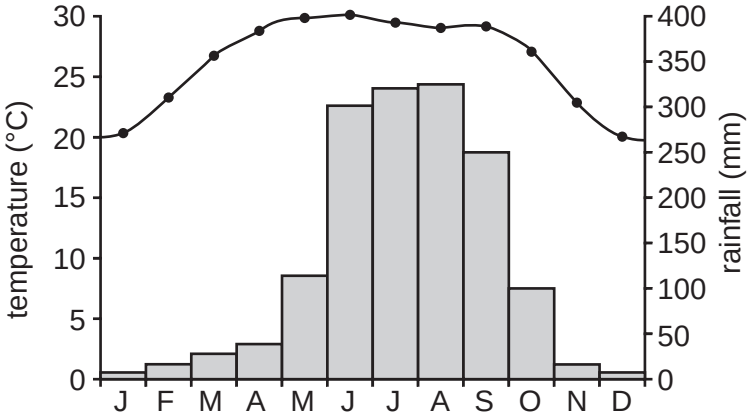
5 Study Fig. 5, which shows a climate graph for the lower Ganges valley in India and infor about rice growing in this area. Photograph B shows people planting rice.



Rice growing requires a hot and wet climate. In this part of India two crops can be grown each year.
The first is planted in June and harvested in October.
The second is planted in late October and harvested in April.

Fig. 5

Photograph B

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(a) The wet season in India is known as the monsoon. Name the **four** months which up the monsoon in this part of the Ganges Valley.

.....

.....[1]

(b) For how many months is the temperature above 25°C?

.....[1]

(c) Suggest why the main crop of rice is planted in June.

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.....[2]

(d) The second crop takes longer to grow and ripen than the main crop. Suggest reasons for this.

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.....[2]

(e) Using evidence from Photograph B only, give **three** inputs for rice farming.

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.....[3]

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Section B

Answer **one** question in this section.

6 Students investigated the central area of a town located on the coast. They surveyed the buildings of the town to identify where the central business district (CBD) was located. A map of the town is shown on Fig. 6. The students recorded the height, width and function of the buildings. The hypothesis of the investigation was:

'the height and width of buildings and the price of the land increase towards the centre of the town'.

(a) Suggest why the increase in the price of the land may affect the height and width of buildings.

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.....[3]

(b) The students carried out a pilot survey to look at the town. State **two** reasons for a pilot survey.

Reason 1 .....

Reason 2 .....[2]

(c) 10 sites were chosen to sample buildings in the town. At each site, the 10 closest buildings were observed. The height of each building was measured by counting storeys and the width of each building measured in paces. An average height and width was calculated for each site. These are shown on Table 1.

(i) Use the results in Table 1 to plot the average building height and width at site C and site F onto Fig. 6. [3]

Table 1

Average height and width of buildings at each site

Site	A	B	C	D	E	F	G	H	I	J
Average height (storeys)	3	3	2	1	2	1	3	1	2	2
Average width (paces)	12	7	7	7	8	8	8	5	4	5

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Average height and width of buildings at each site

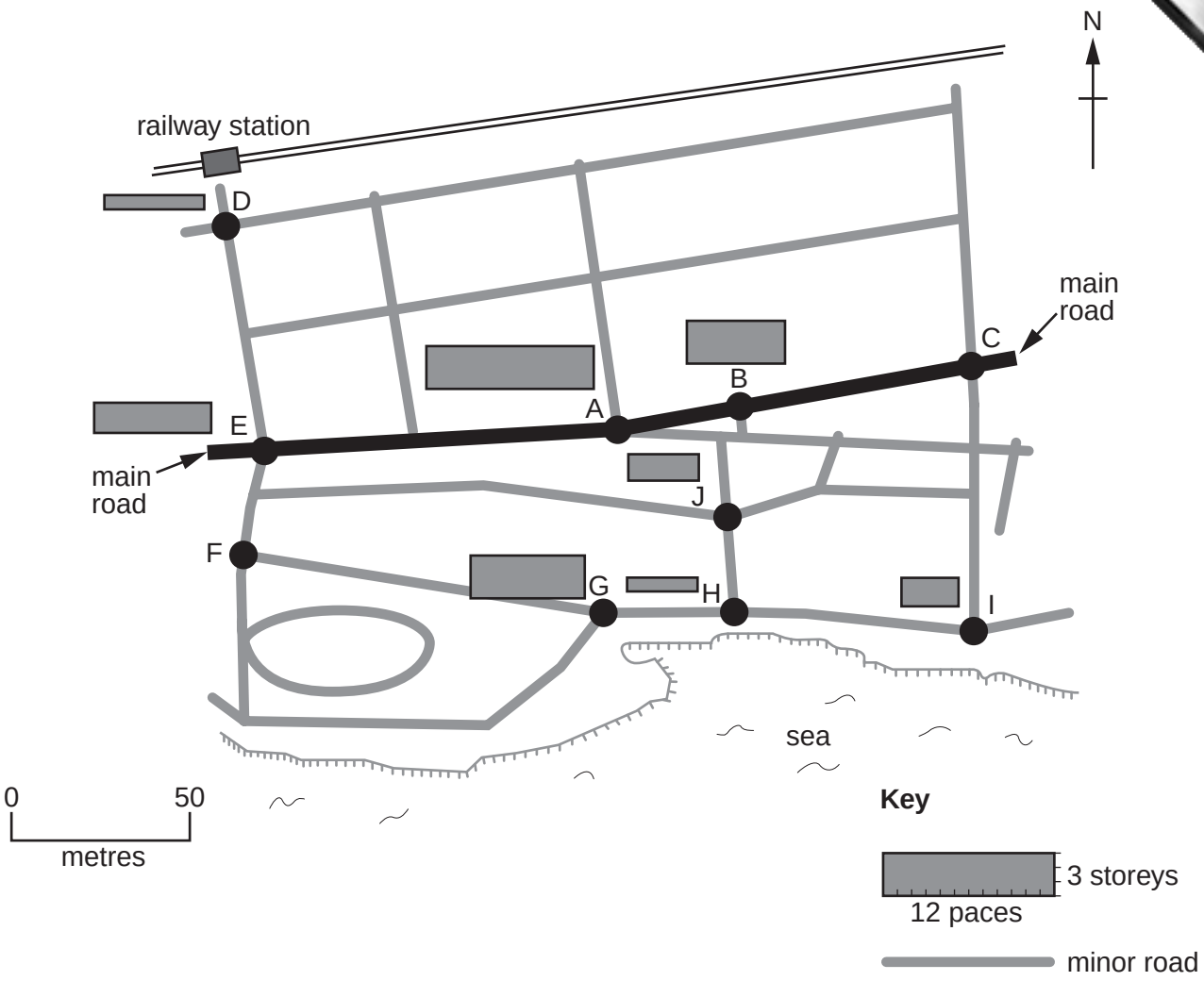

Fig. 6

(ii) Study the completed map (Fig. 6) and describe the pattern of building heights and widths shown in the town.

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.....[3]

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(d) **(i)** The ground floor function of the 10 buildings at each site was recorded. Why students only record the ground floor function of the buildings?

.....[1]

(ii) In the boxes below, write 'CBD' next to **two** functions which are found in the CBD of a town. [2]

BANK		MAIN POST OFFICE	
DEPARTMENT STORE		GENERAL STORES	
LOW COST HOUSING		TOURIST OFFICE	

(iii) Tick the hypothesis which would be the best to use to investigate the functions of the CBD. [1]

A ***'Buildings closer to the CBD have a mainly residential function'***

B ***'Buildings closer to the CBD have a mainly commercial function'***

C ***'Buildings closer to the CBD have a mainly tourist function'***

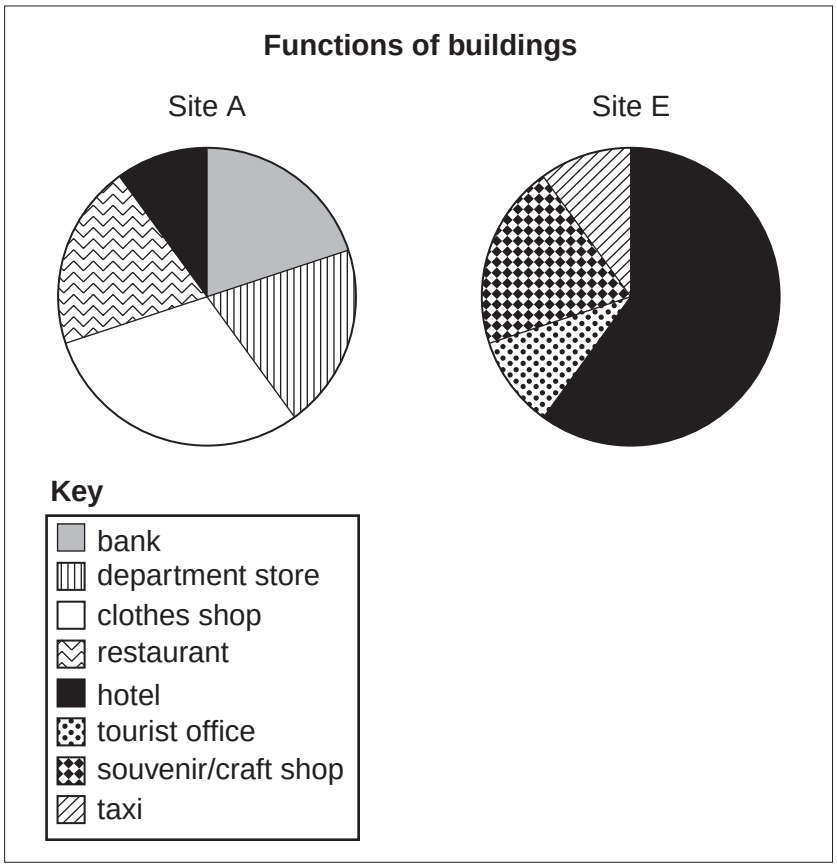

Fig. 7

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(iv) The functions of the 10 buildings at Site A and Site E are shown in Fig. 7. C the functions of the two sites.

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.....[3]

(e) The teacher encouraged a group of students to organise their own pedestrian or traffic count. Describe in detail how and where the students could do this in the town.

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.....[3]

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(f) Land values for each site were collected from the municipal town hall. The v measured in thousand US dollars for each square metre. The results are show Table 2 and plotted on Fig. 8.

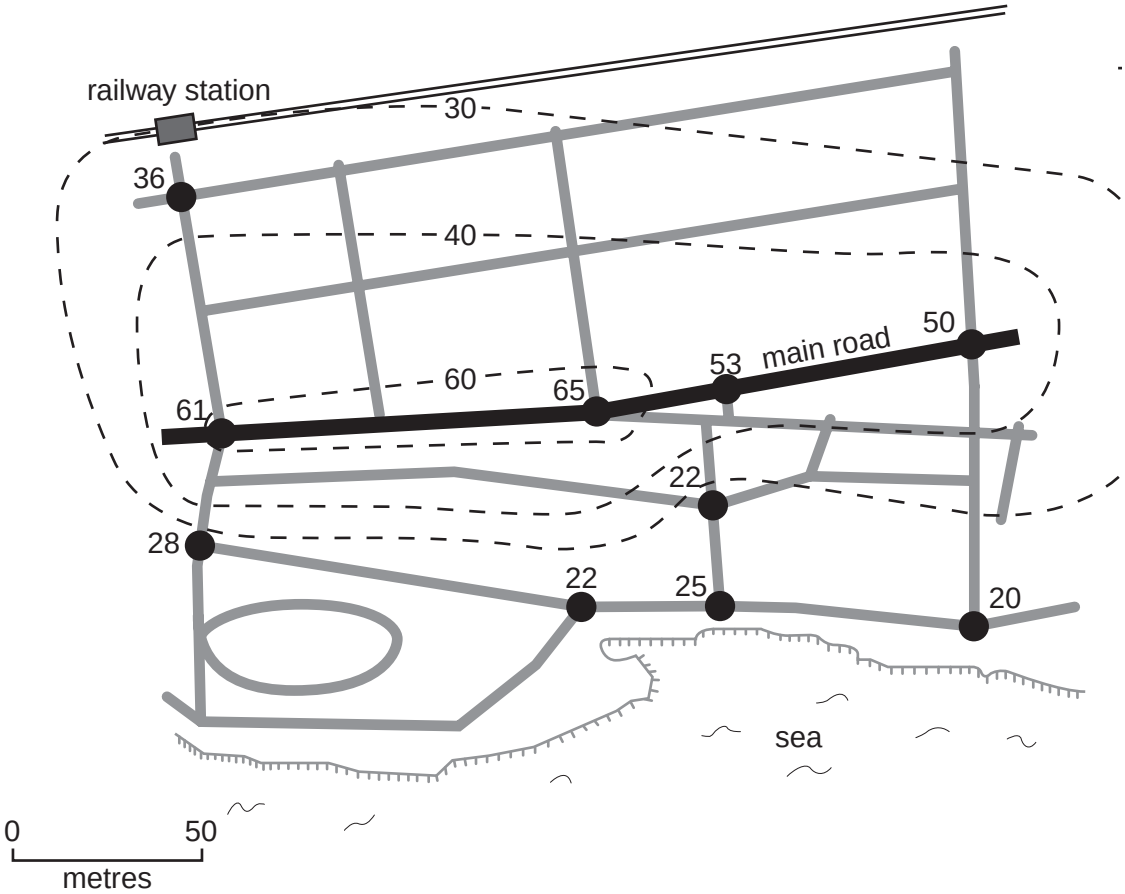
(i) Draw the isoline for 50 thousand US$/m^2 [2]

(ii) Colour in the land valued above 60 thousand US$/m^2 [1]

Table 2

Land values at each site (thousand US$/m^2)

Site	A	B	C	D	E	F	G	H	I	J
Land value thousand US$/m^2	65	53	50	36	61	28	22	25	20	22



Key

– -60- – isoline of land value (thousand US$/m^2)

minor road

Fig. 8

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(g) Look again at Table 1 and Figs 6, 7 and 8. Write a conclusion to this investigati should comment on the original hypothesis suggesting where the centre of the tow located. Give reasons for your decision, stating data from Table 1 and Figs 6, 7 and You should mention building height, building width and the value of the land.

Comment on original hypothesis:

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.....[6]

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7 Students investigated a local beach in summer by looking at changes in the beach m
The beach was used by local residents and tourists and a sketch map of it is shown in F
(Insert).

(a) **(i)** The teacher stated that the waves at this beach became more destructive, higher, more frequent and with greater backwash during storms. This caused material near the back of the beach to be larger than at the water's edge.
Add labels to the diagram in Fig. 10 to show wave height, wave length, swash and backwash.

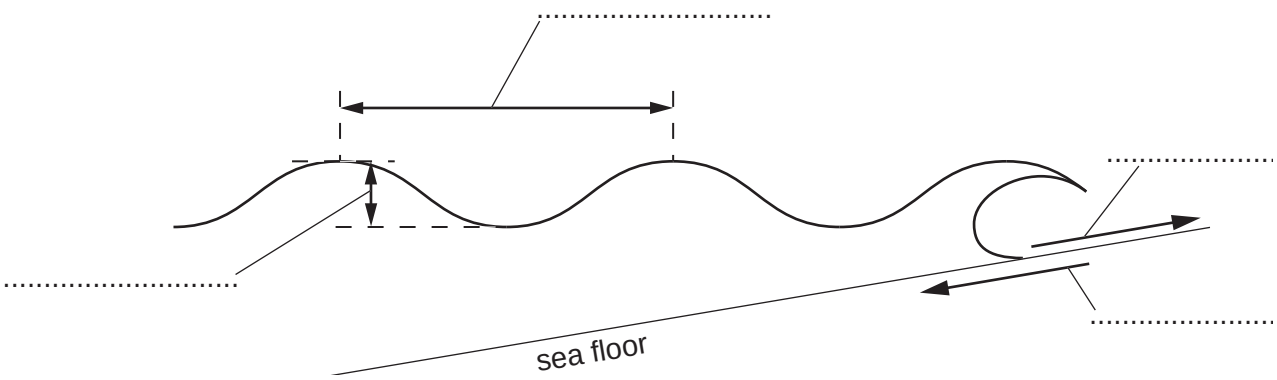

Fig. 10 [2]

(ii) What is a *destructive wave*? .....

.....

.....[1]

(b) The students used a measuring tape to form a transect line, shown on Fig. 9 (Insert), from the water's edge (LWM – low water mark) to the sea wall. A quadrat was used systematically to sample the beach material at 12 sites along the transect line.

(i) Define *systematic sampling*.

What are the advantages of using this method rather than random sampling?

Definition: .....

.....

Advantages: .....

.....

.....

.....[3]

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(ii) Photograph C was taken at Site 1 on the transect, shown on Fig. 9 (Inse
Photograph D was taken at Site 12. The coin is used to show scale.

Annotate Photograph D to show the differences in beach material. [3]

Photograph C

Photograph D

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(c) Material from the centre of each quadrat at each end of the transect was taken school and sieved. The results are shown in Table 3.

Table 3

	Size of material (%)			
	Sand	Shingle	Small pebbles	Other material
Site 1 LWM	90%	9%	0	1%
Site 12 back of beach	57%	20%	6%	17%

(i) Use Table 3 and the key to complete the bar chart for Site 12. [3]

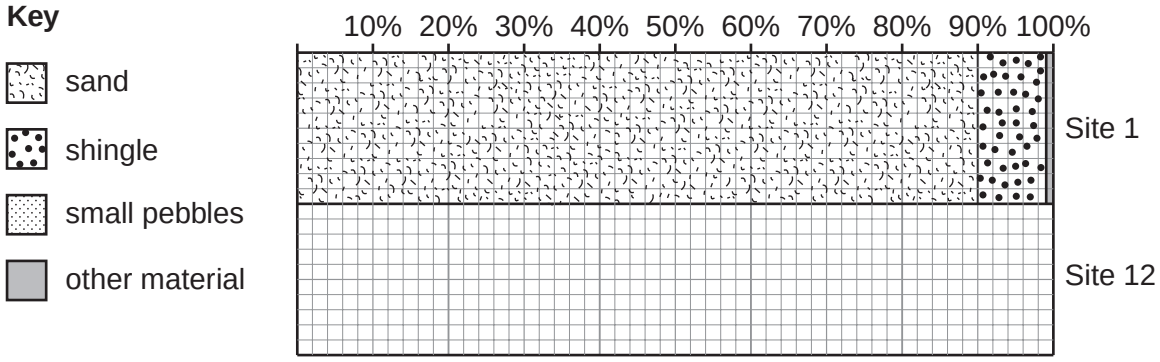

Fig. 11

(ii) Use Fig. 11 to describe the differences in beach material between Site 1 and Site 12.

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.....[2]

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(iii) Write a conclusion to the beach material investigation.

Comment on the original ideas:

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Data evidence:

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.....[3]

(d) The photograph and sieving at Site 12 produced material which was not sand, shingle or small pebbles. This was classified as 'other material'. The students returned to the beach to investigate the 'other material'. Explain how 'other material' arrives at the beach.

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.....[3]

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(e) In order to collect data about the 'other material', the students walked along the from W to E, just in front of the sea wall – see Fig. 9 (Insert). They observed the material' present and completed a bi-polar scoring recording sheet every 20 paces. T recording sheet is shown in Fig. 12.

(i) Write instructions to the students about how to collect the data using this recording sheet.

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.....[3]

Number of paces from W:						
	–2	–1	0	+1	+2	
lots of wood						no wood
lots of glass						no glass
lots of paper						no paper
lots of cigarette ends						no cigarette ends
lots of plastic						no plastic
Total for Site :						

Fig. 12

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Results of the bi-polar survey every 20 paces along the beach from W to E

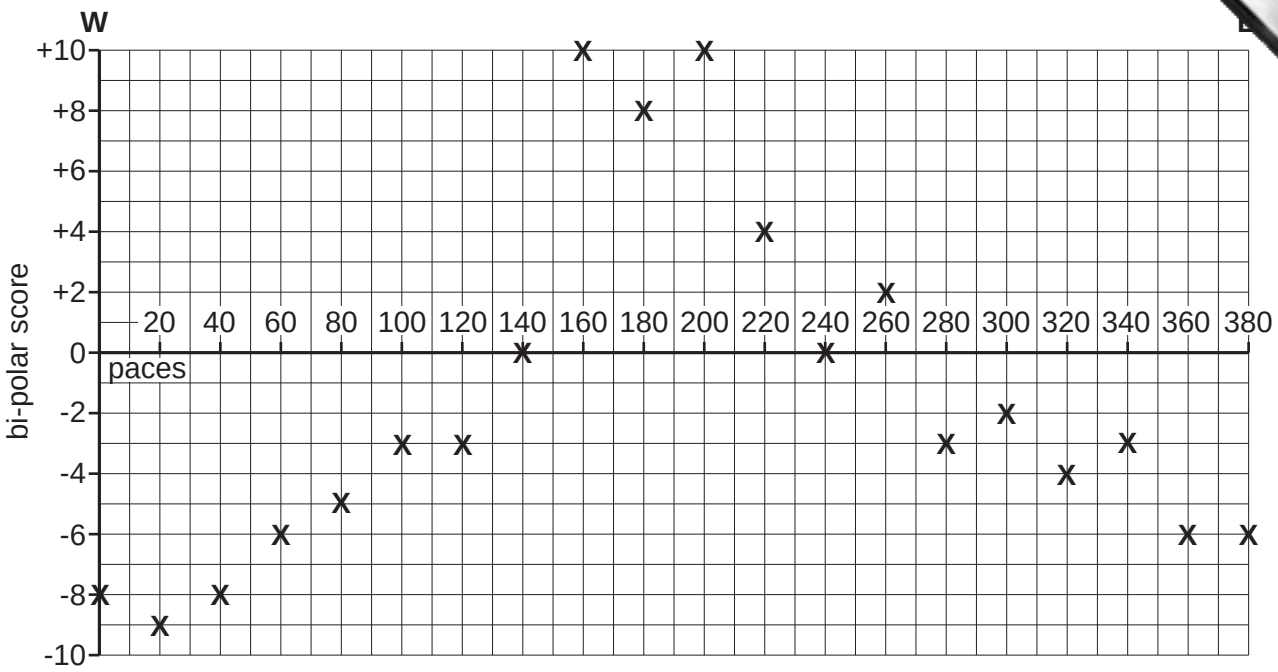

Fig. 13

(ii) Describe and give possible reasons for the results shown in Fig. 13.

Description:

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Reasons:

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.....[4]

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(f) Evaluate the data collection methods that the students used in their beach investigations. You should suggest advantages, disadvantages and improvements.

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.....[3]

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