Centre Number	Candidate Number	Candidate Name

NAMIBIA SENIOR SECONDARY CERTIFICATE

GEOGRAPHY HIGHER LEVEL

8330/3

PAPER 3

1 hour 45 minutes

Marks 60

2020

Additional Materials: Non-programmable calculator
                              Pencil
                              Ruler

INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Write your Centre Number, Candidate Number and Name in the spaces at the top of this page.
- Candidates answer on the Question Paper in the spaces provided.
- Write in dark blue or black pen.
- Use a soft pencil for any rough work, diagrams or graphs.
- Do not use correction fluid.
- Do not write in the margin *For Examiner's Use.*

- Answer **all** the questions.

- All working must be clearly shown.
- Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

- The number of marks is given in brackets [   ] at the end of each question or part question.
- You may use a non-programmable calculator.

For Examiner's Use		
1		
2		
3		
Total		
Marker		
Checker		

This document consists of **12** printed pages.

Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

1 Geography students were doing a study of their town, a coastal resort (Town M).

(a) From fieldwork observations the students have located three services within the town.

These are shown on **Fig. 1A**, **Fig. 1B** and **Fig.1C**.

Sea

Fig. 1C

Shoe shops (total 5)

Sea

Fig. 1B

Banks (total 8)

Sea

I

II

III

Fig. 1A

Department stores (total 3)
(large shops selling a wide
variety of goods)

2 km

Key

—— Selected main roads

(**I – III** Road numbers on **Fig. 1A**
for **Question 2**)

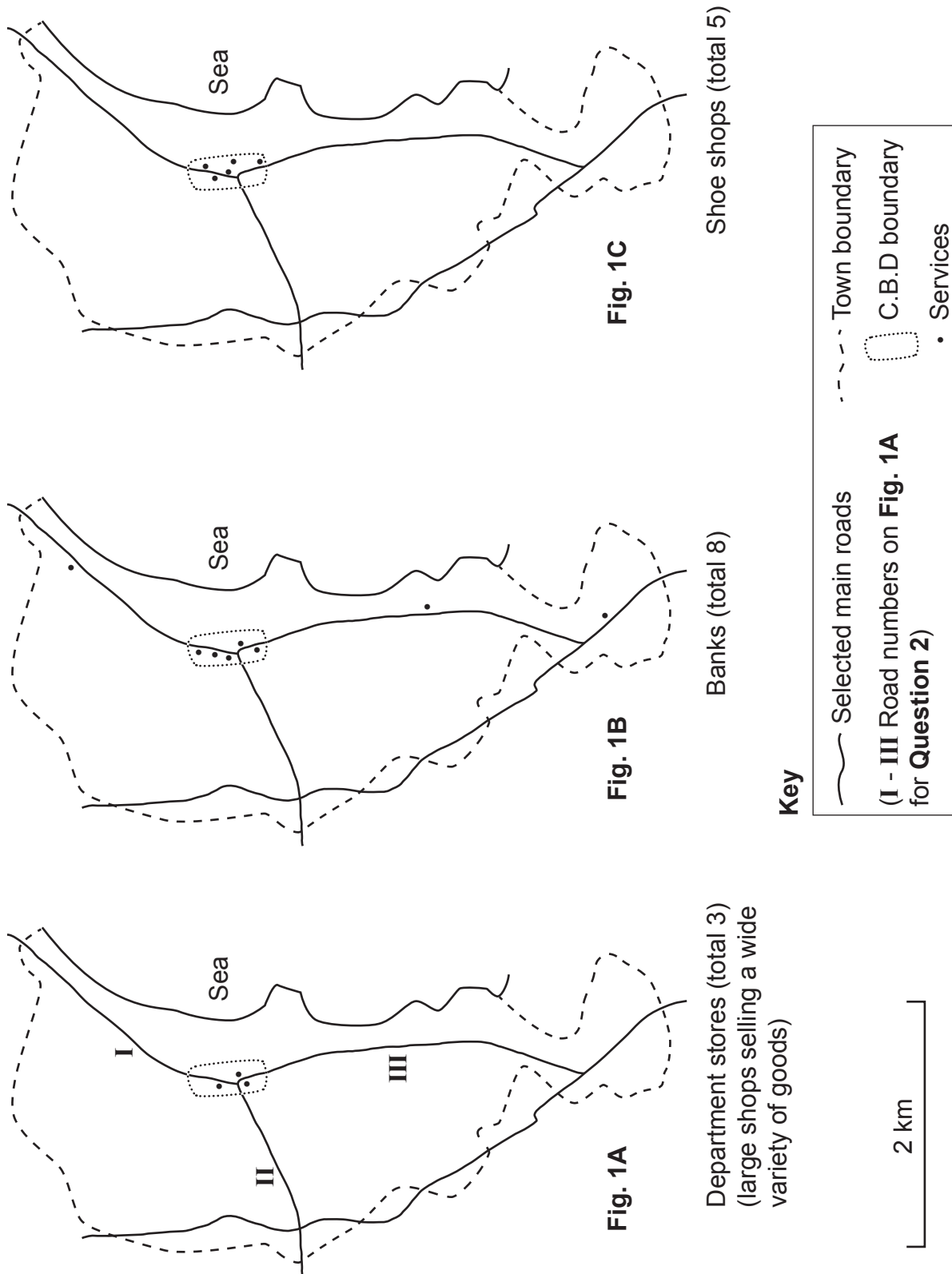- - - Town boundary

⬭ C.B.D boundary

• Services

Fig. 1A, **Fig. 1B** and **Fig. 1C**

(i) Describe the number of and distribution of each of the functions shown within Town M.

Department stores

....

....

....

....

Banks

....

....

....

....

Shoe shops

....

....

....

.... [6]

(ii) Suggest **two** reasons for the similarities and **two** reasons for the differences in the distribution of the three functions within Town M.

Similarities

1 ....

....

2 ....

....

Differences

1 ....

....

2 ....

.... [4]

(b) The students wish to compare (Town M), as a service centre, with other towns in the region. The frequency of two services in these towns has been obtained from a telephone directory.

Population figures have also been obtained for the towns.

The information is shown in Table 1.

Table 1

Towns	Population	Number of banks	Number of shoe shops
L	55 000	14	10
M	35 000	8	5
N	19 000	6	5
O	12 000	5	3
P	12 000	5	3
Q	9 000	4	2
R	7 500	4	3
S	6 000	5	4
T	3 500	4	2
U	2 500	2	1

(i) Using the axes and key provided in Fig. 2, plot the number of banks and shoe shops against the population of the towns. [6]

Plot **X** for banks and **Y** for shoe shops.

When plots coincide label as X2 / Y2.
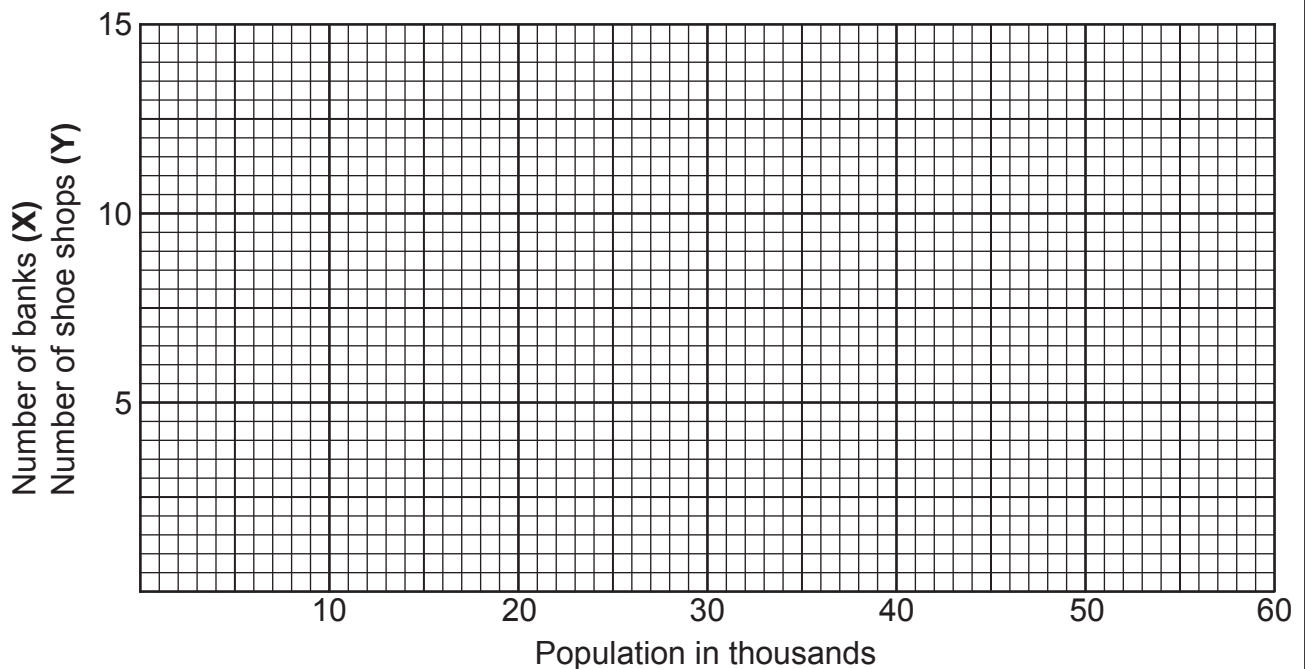
Fig. 2

(ii) Which of the two services plotted on Fig. 2 is the higher order service?
Give **one** reason for your answer.

Higher order service...

Reason

....

....

.... [2]

(c) Fig. 3 compares shopping journeys from the area around neighbouring Towns **M** and **N** to visit department stores (large shops selling a wide variety of goods).

N

0 km 1

Key

● Towns with department stores	●— Journeys made by most of the people in the smaller settlements when visiting department stores
• smaller settlements	
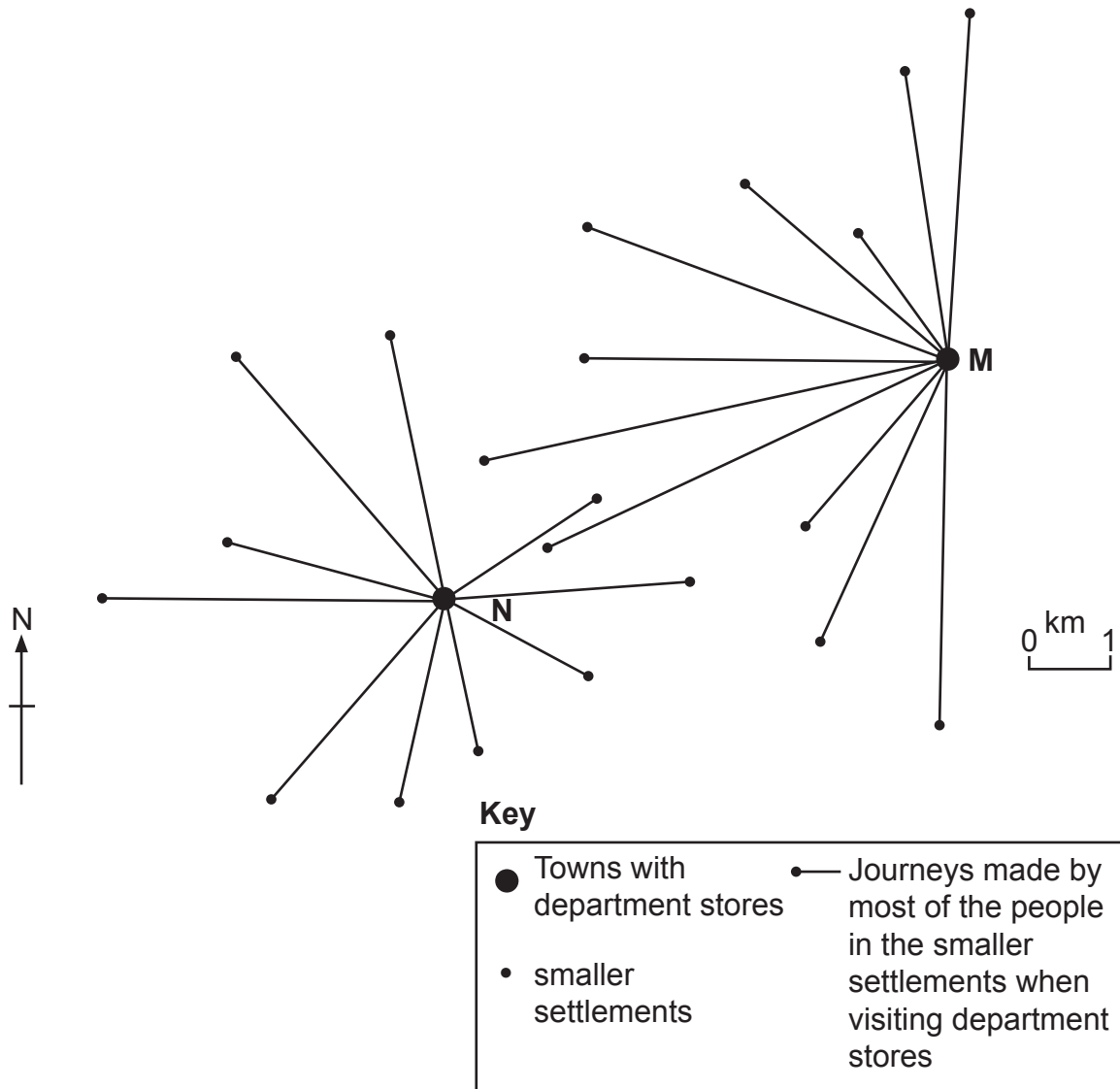
Fig. 3

Using Fig. 3, describe **four** differences between each of the town patterns of indicated shopping journeys.

1 ....

....

2 ....

....

3 ....

....

4 ....

.... [4]

(d) Why do people sometimes visit shops in more distant towns rather than those in their nearest town?

Give **two** reasons.

1 ....

....

2 ....

.... [2]

[24]

[Turn over

2 A group of Geography students are to conduct a traffic survey along each of the three main roads (**I**, **II** and **III**) which lead in and out of the centre of Town **M**.

You are to plan and organise the traffic survey, using the students, to investigate hypotheses **A** and **B**.

Hypothesis:
A Traffic is heaviest during the morning and evening rush hours (peak traffic times).

Hypothesis:
B The proportion of trucks in the traffic is greatest outside the rush hours.

Along each main road the following information is to be collected for 30 minutes at three different times on three weekdays of each of four weeks

- the types of vehicles (trucks and others) moving in each direction.
- the numbers of each type of vehicle moving in each direction.
- whether the traffic is moving into or away from the town centre.

(a) (i) How would you select the collection points along each main road?

State **four** aspects.

1 ....

....

2 ....

....

3 ....

....

4 ....

.... [4]

(ii) How would you organise the collection of data?

1 ....

....

2 ....

.... [2]

(iii) How would you record and set out the data on a form?

You may use labelled diagrams to aid your answer.

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....

....

.... [6]

(iv) How would you process and use the data collected over the four weeks to investigate the two hypotheses?

You may use labelled diagrams to aid your answer.

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.... [4]
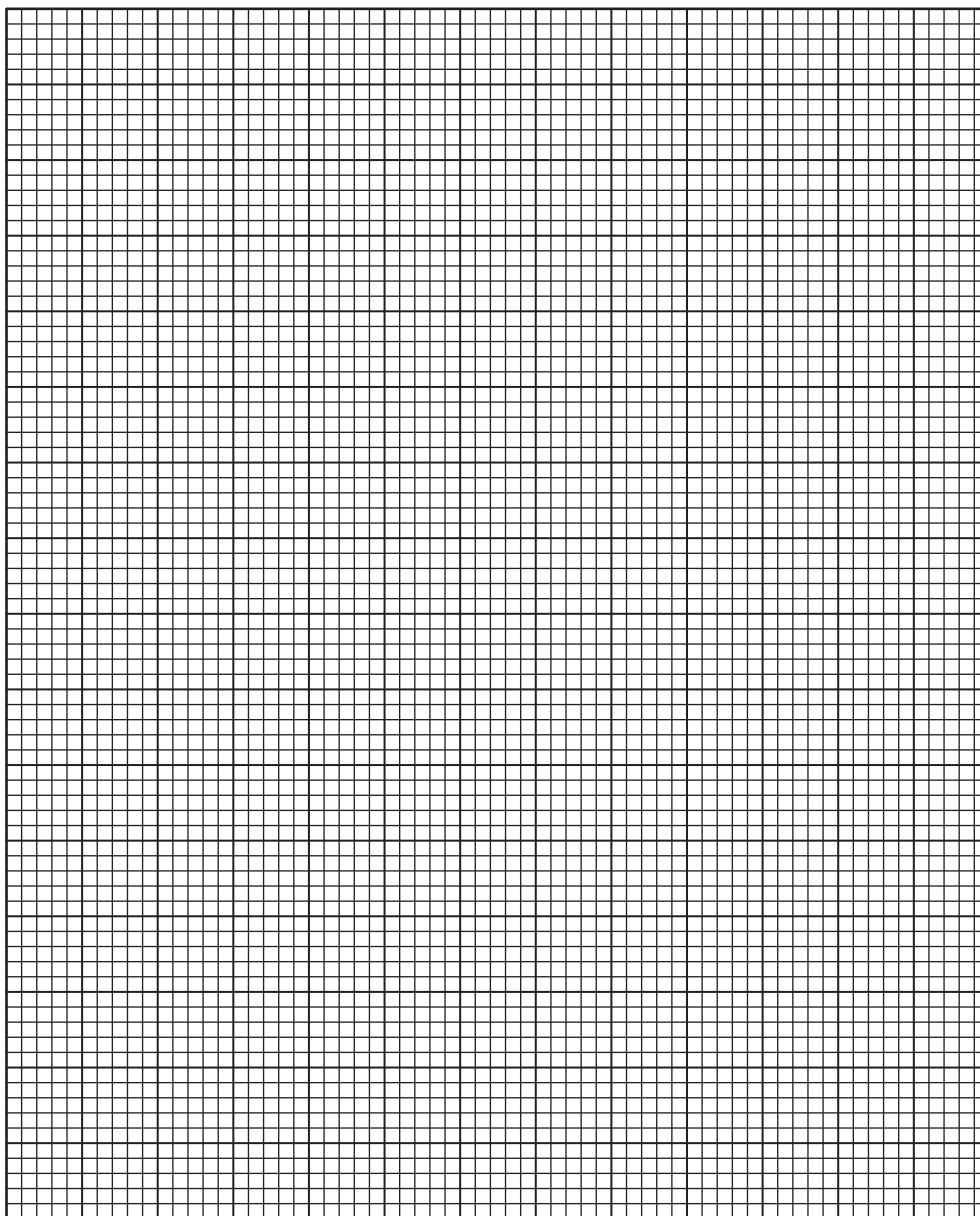
[Turn over

(b) Divided bar graphs are to be drawn for each location where information is to be collected.

Draw divided bar graphs to show how the information collected for one location for a specific time slot could be displayed.

Add a key to your bar graph.

Accurate bar graphs are not required.

Key

[6]

[22]

3 **(a)** Photograph **A** was taken by a student during a field study along a coastline. It shows the cliff and some deposits.

Photograph A

Add labels to the photograph to locate and describe the main features of the cliff and the coastline shown. [6]

(b) Explain how the height of the cliff could be measured. The cliff is inaccessible and measurements must be made from the beach. Include in your answer the equipment you would need and describe how you would use this equipment.

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....

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....

....

.... [4]

[Turn over

(c) The student picked up at random a pebble from each of 10 different locations from the sea to the cliff foot.

The average pebble lengths (long axes) of the 10 pebbles was measured.

A roundness value of these pebbles was calculated, using a formula.

Note
A pebble with a roundness value of 1 000 would be completely round like a ball. The lower the figure the more angular the pebble.

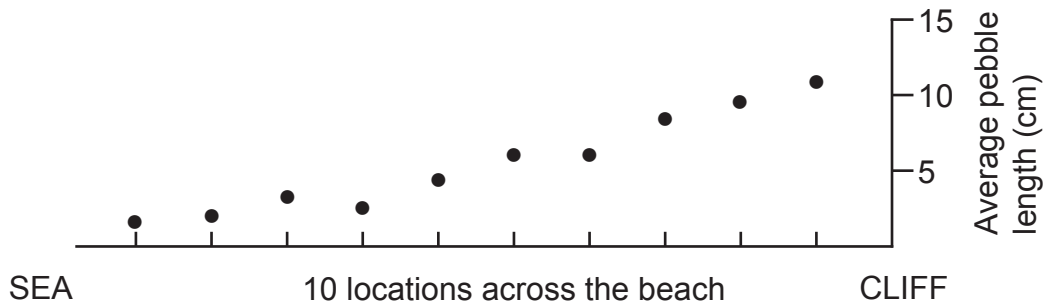**Fig. 4A** and **Fig. 4B** show the results of these measurements.

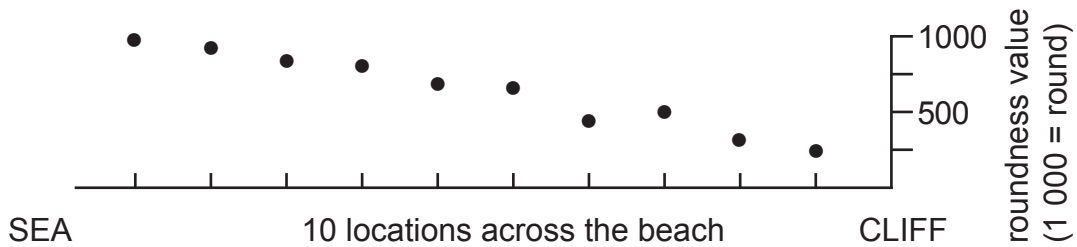**Fig. 4A**

Fig. 4B

(i) What do the two graphs show?

....

....

....

.... **[2]**

(ii) Suggest **two** reasons for your answers to **(c) (i)**.

Pebble size...

....

Roundness ....

.... **[2]**

[14]