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GEOGRAPHY

6890/02

Paper 2 Geographical Skills

October/November 2021

2 hours

Additional Materials:

- Ruler
- Protractor
- Plain paper
- Calculator
- 1:50 000 survey map extract enclosed with this Question Paper

READ THESE INSTRUCTIONS FIRST

Write your name, Centre number and candidate number in the spaces provided.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs, calculations, tables or rough working.

SECTION A

Answer **all** questions.

SECTION B

Answer **all** questions.

SECTION C

Answer **one** question.

The Insert contains Figs 9 and 10 for Question 5(a) and (c), Fig. 11 for Question 5(d), Fig. 14 for Question 6, Tables 4 and 5 for Question 6(b).

The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use	
Section A	
Question 1	
Section B	
Question 2	
Question 3	
Question 4	
Section C	
Either Question 5	
Or Question 6	
Total	

This document consists of **20** printed pages.

SECTION A

MAP READING AND INTERPRETATION

Answer **all** questions in this section in the spaces provided.

- 1 Study the map extract of Glendale, Zimbabwe on the scale of 1:50 000.

Fig. 1, shows the position of some features in the South eastern part of the map extract.

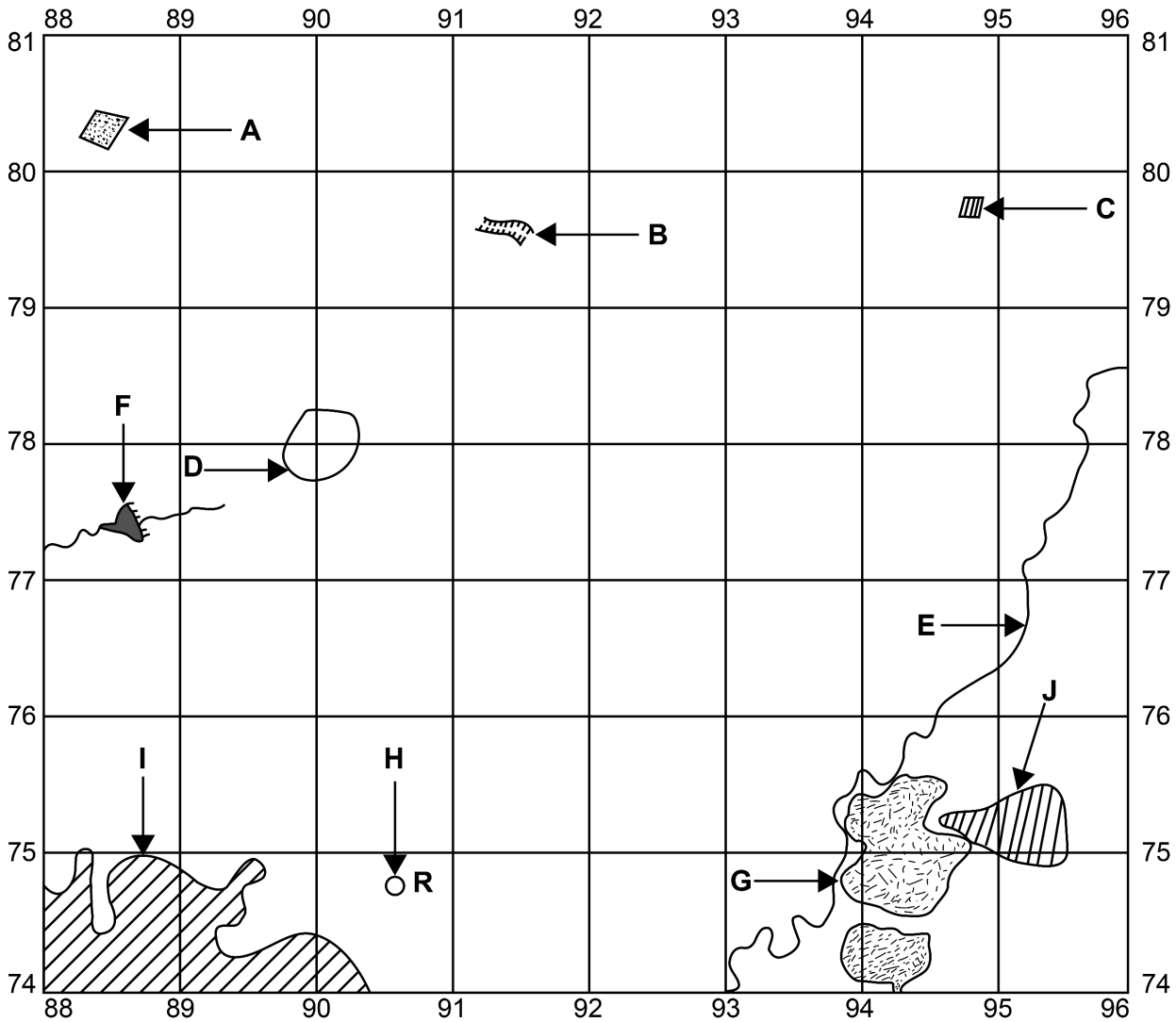


Fig. 1

(a) Using the map extract and Fig. 1, identify the following:

(i) feature **A**;

..... [1]

(ii) feature **B**;

..... [1]

(iii) feature **C**;

..... [1]

(iv) type of settlement pattern at **D**;

..... [1]

(v) name of river **E**;

..... [1]

(vi) feature **F**;

..... [1]

(vii) land use at **G**;

..... [1]

(viii) name of feature **H**;

..... [1]

(ix) type of vegetation at **I**;

..... [1]

(x) type of slope at **J**.

..... [1]

(b) Identify **two** services that are found in the town of Glendale.

1

2 [2]

(c) What is the six-figure grid reference of the narrow tarred road bridge over the Murowodzi river?

..... [1]

- (d) Identify a feature that is found in both grid squares 9580 and 9276.

..... [1]

- (e) What is the general direction of flow of the Mazowe river?

..... [1]

- (f) Study Fig. 2, which shows areas with streams. On Fig. 2, indicate with a letter H the grid square with the highest stream density.

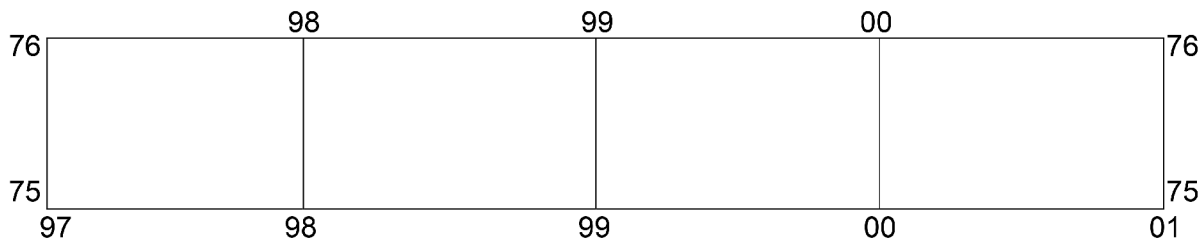


Fig. 2 [1]

- (g) Measure the whole circle bearing of the trigonometrical station 344/T (grid square 9378), from the trigonometrical station 1/S (grid square 9874).

..... [1]

- (h) Measure the distance in metres, along the railway line from 970797 to the edge of the map on the east.

..... [1]

- (i) Calculate the gradient of the wide tarred road between 939776 and 955792.

.....

 [2]

- (j) Study Fig. 3, which shows four zones **A**, **B**, **C** and **D** in the town of Glendale.

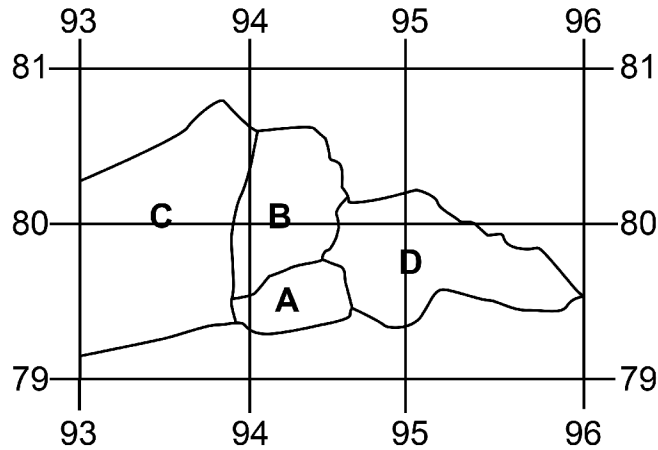


Fig. 3

Using Fig. 3, identify the zone which is likely to have the highest population density.

..... [1]

- (k) Give any **two** reasons for the location of orchard plantations on the map extract.

1

2 [2]

- (l) Suggest **one** reason why there is very little cultivation in the south eastern part of the map.

..... [1]

- (m) What is the **main** reason that led to the growth of Glendale?

..... [1]

[Total: 25 marks]

SECTION B

Answer **all** questions in this section.

- 2 Study Fig. 4, which shows a river in its middle course.

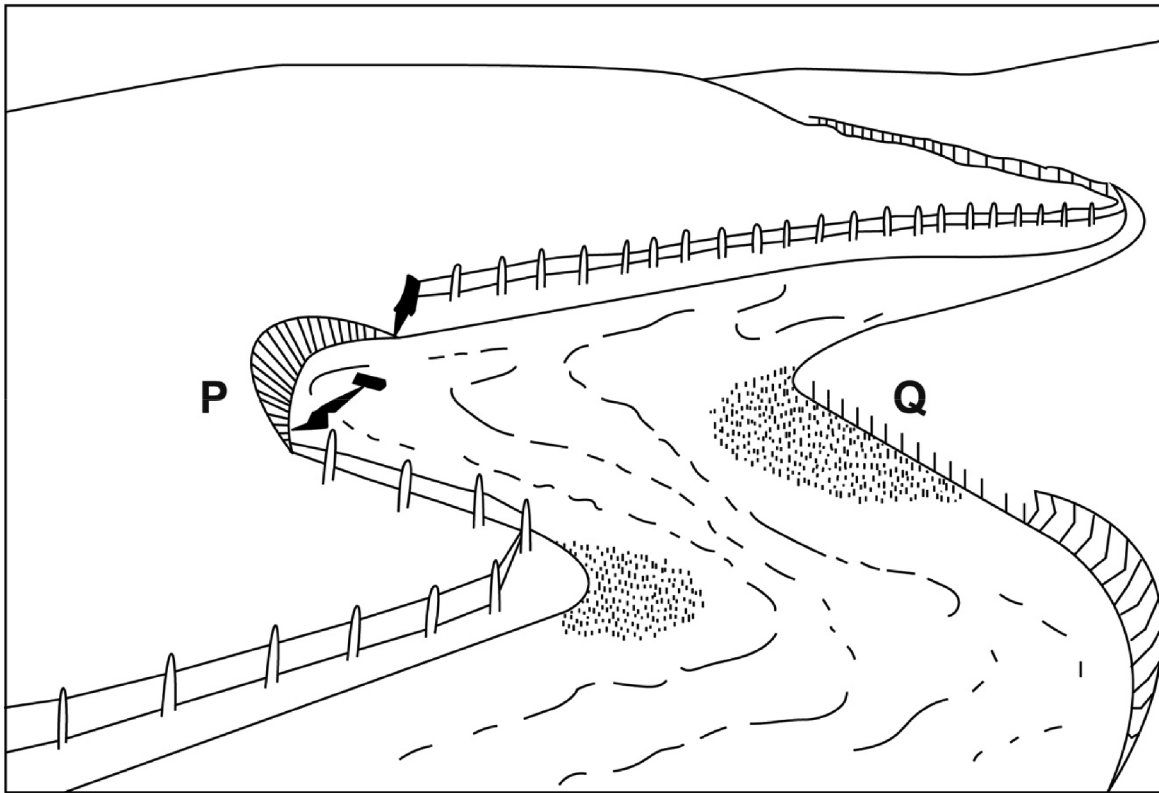


Fig. 4

- (a) Name the river processes taking place at **P** and **Q**.

P

Q [2]

- (b) Give **two** pieces of evidence from Fig. 4 for the process taking place at **P**.

1

2 [2]

- (c) Identify **two** ways by which the river has carried out the process at **P**.

1

2 [2]

- (d) On Fig. 5, draw a cross-section of the river from **P** to **Q** to show the shape of the river's channel.



Fig. 5

[2]

- (e) On the cross-section, mark with the letter M, the position of the river's highest velocity [1]

[Total: 9 marks]

- 3 Study Fig. 6, which shows the employment structure of four countries, two are LEDCs and the other two are MEDCs.

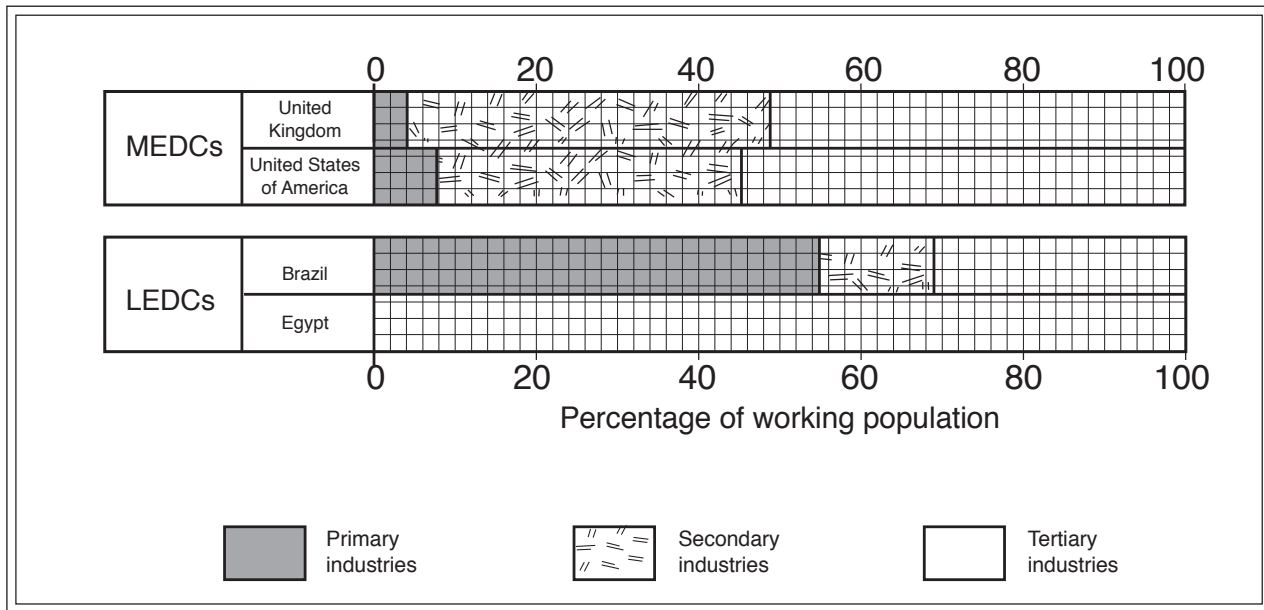


Fig. 6

- (a) What percentage of the population is employed in;
Tertiary industries in Brazil;

.....

Secondary industry in the United States of America?

..... [2]

- (b) Describe **three** ways in which the employment structures of the United Kingdom and Brazil differ.

1

.....

2

.....

3

..... [3]

- (c) The percentages of the working population in Egypt are Primary 55%, Secondary 35% and Tertiary 10%. Complete Fig. 6, by adding this information for Egypt. Use the key provided. [3]

[Total: 8 marks]

- 4 Study Fig. 7, which shows changes which have taken place in a village over a 40-year period (1960–2000).



Fig. 7

- (a) Identify **four** ways by which the village has changed between 1960 and 2000.

1

2

3

4

..... [4]

(b) Study Fig. 8, which shows factors that influence population change.



Fig. 8

Explain how each of the factors shown in Fig. 8, has influenced population change.

1

.....

.....

2

.....

..... [4]

[Total: 8 marks]

SECTION C

RESEARCH SKILLS

Answer **either** Question 5 **or** Question 6.

- 5 A group of students wanted to compare the Central Business District (CBD) of Manzini city, with an out of town shopping centre at Moneni. They decided to investigate the following hypotheses;

Hypothesis 1: *There is greater variety of shops and services in the Manzini CBD than at Moneni shopping centre.*

Hypothesis 2: *Shoppers are attracted either to the Manzini CBD or Moneni shopping centre for different reasons.*

- (a) The students' first task was to study the layout of Manzini CBD and that of Moneni shopping centre. These are given in Fig. 9 and Fig. 10 (Insert), together with the key.

- (i) Give **one** example of a facility that is found in the Manzini CBD shown in Fig. 9.

..... [1]

- (ii) State **one** advantage of the location of the facilities in the Manzini CBD.

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

- (iii) Suggest **one** reason why there are unoccupied shops in the Manzini CBD.

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

- (b) The teacher suggested that the students carry out a preliminary visit to the Manzini CBD and Moneni shopping centre.

- (i) What is a preliminary visit?

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

- (ii) Suggest **two** advantages of a preliminary visit.

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

- (c) To test **Hypothesis 1**; the students conducted a land use survey for the shops and services in both the Manzini CBD and Moneni shopping centre. The land use for Manzini CBD and Moneni shopping centre are shown on Fig. 9 and Fig. 10 (Insert) and the results for the Manzini CBD are shown in Table 1.

Table 1

	Manzini CBD	Moneni Shopping Centre
Shops for comparison/high order goods	15	7
Shops for convenience/low order goods	7	
Services	5	2
Shops unoccupied	10	
Total	37	

- (i) Use the information in Fig. 10, to complete the data for Moneni shopping centre in Table 1. [2]

- (ii) Use Fig. 9 and Fig. 10 (Insert), to give an example of the type of shop which sells;

High order goods,

.....

Low order goods.

..... [2]

- (iii) Using evidence from the land use in Fig. 9, Fig. 10 (Insert) and Table 1, write a conclusion to **Hypothesis 1**: *There is greater variety of shops and services in Manzini CBD than in Moneni shopping centre.*

.....

.....

.....

.....

.....

..... [3]

(d) The students further investigated **Hypothesis 2: Shoppers are attracted to the Manzini CBD and Moneni shopping centre for different reasons.** They decided to use a questionnaire shown in Fig. 11 (Insert) to interview some people in the two shopping centres.

(i) Suggest **two** pieces of advice the geography teacher could have given to the students on how to carry out the interview.

1

.....

2

..... [2]

(ii) Suggest **two** pieces of information the students needed to add to the questionnaire in Fig. 11 (Insert).

1

2 [2]

(e) Table 2 shows the results of Question 1 in the questionnaire:

Table 2

What is the main reason for shopping here?

Reason	Manzini CBD (%)	Moneni Shopping centre (%)
Close to home	6	10
Close to work	20	3
Visiting area	10	2
Convenient parking	2	50
Wide range of shops	50	5
Value for money	12	30
Total	100	100

- (i) Use the results from Table 2, to complete the pie graph for the Manzini CBD in Fig. 12.

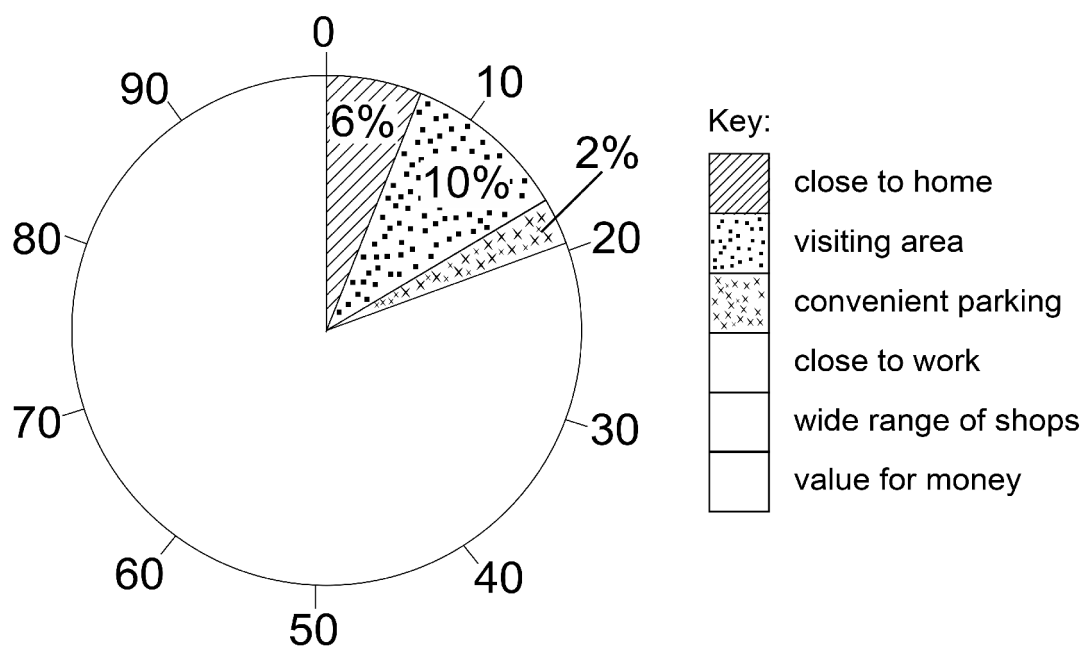


Fig. 12

[3]

- (ii) Table 3, shows the results of Question 2 in the questionnaire.

Table 3

What are the main items you bought?

Items	Manzini CBD (%)	Moneni shopping centre (%)
Food and drinks	6	35
Home improvement	5	20
Furniture/electrical	10	24
Clothes	55	15
Jewellery	24	6
Total	100	100

Use the results from Table 3, to complete the bar graph Fig. 13 for the Moneni shopping centre.

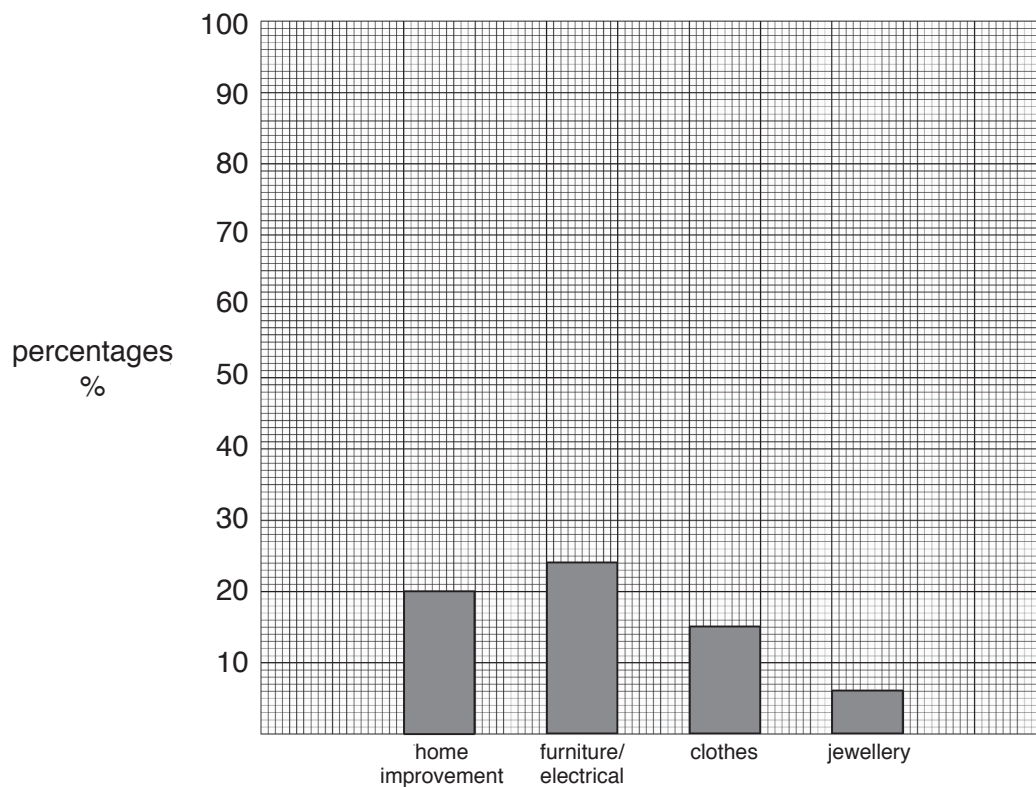


Fig. 13

[2]

- (iii) Using evidence from Tables 2, 3 and Fig. 13, write a conclusion to **Hypothesis 2: Shoppers are attracted to both the Manzini CBD and Moneni shopping centre for different reasons.**

.....

.....

.....

.....

.....

.....

[3]

[Total: 25 marks]

- 6 Geography students in a school along the KwaZulu Natal coast, were studying local weather conditions.

They decided to do an investigation of rainfall and wind direction at their school and at a coastguard station, 50 kilometres away. The location of the school and the coastguard station are shown in Fig. 14 (Insert).

The students investigated the following hypotheses;

Hypothesis 1: *There is more rainfall at the school than at the coastguard station.*

Hypothesis 2: *There is more rainfall when wind is blowing from the east and south east.*

(a) To investigate the hypotheses the students used two instruments.

- (i) Name the instrument that the students used to investigate **Hypothesis 1**.

..... [1]

- (ii) To measure wind direction, they used a wind vane shown in Fig. 15.

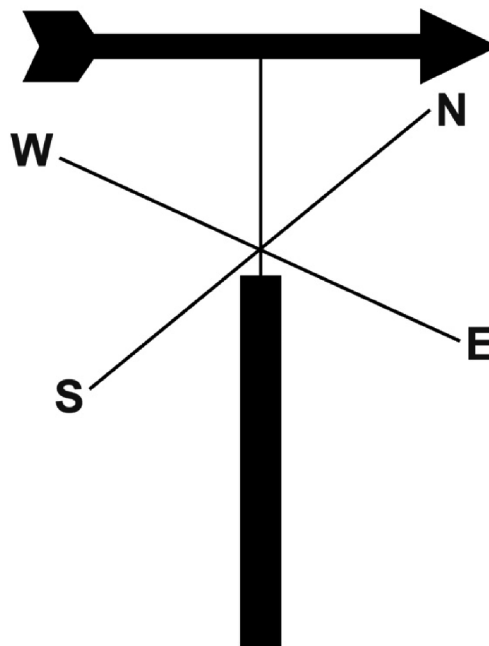


Fig. 15

Describe the appropriate siting of a wind vane such as the one shown in Fig. 15.

1

.....

2

.....

3 [3]

(iii) Describe how the wind vane measures wind direction.

.....

.....

.....

.....

.....

..... [3]

(iv) If the teacher had to tell the students to work in pairs, what would be **three** advantages of working in pairs?

1

.....

2

.....

3

..... [3]

- (b) The teacher divided the students into two groups. One group was told to take rainfall measurements at the coastguard station and the other group remained at the school to take rainfall measurements.

The rainfall measurements are shown in Tables 4 and 5 (Insert).

- (i) Use Table 4 (Insert), to calculate the average rainfall for each day in which the measurements were taken in the school.

.....

.....

.....

..... [2]

- (ii) The students presented their data in the form of a bar graph shown in Fig. 18.

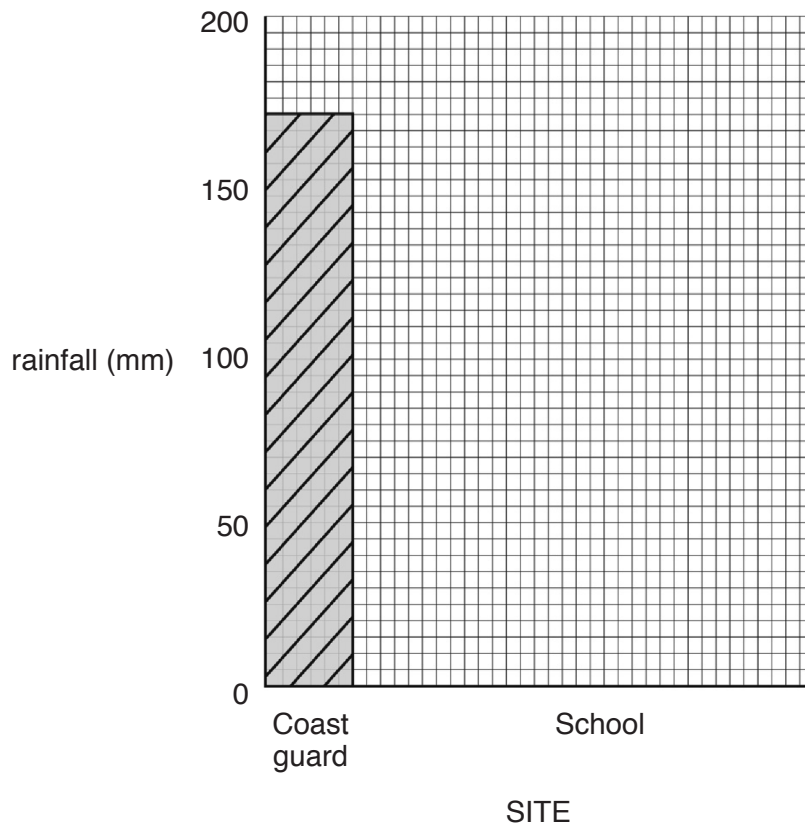


Fig. 18

Use data from Table 4 (Insert) to complete the bar graph Fig. 18 for the school. [2]

- (iii) Using evidence from Tables 4 and 5 (Insert) and Fig. 18, write a conclusion to **Hypothesis 1**: *There is more daily rainfall at the school than at the coastguard station.*

.....

.....

.....

.....

.....

..... [3]

- (iv) Using Fig. 14 (Insert), suggest **two** reasons why rainfall amounts differ between the school and the coastguard section.

.....

.....

.....

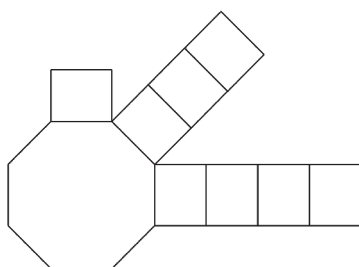
..... [2]

- (c) The students further investigated the effects of wind direction on the amount of rainfall received in both places. The data was then presented in Table 6.

Table 6

Location	Day	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
coastguard station	Wind direction	NE	SE	E	SE	NE	NE	E	E	E	SE	SE	S	W	N	S	S
	Rainfall	–	16	18	17	2	3	20	18	19	16	18	1	2	2	3	4
school	Wind direction	E	SE	S	E	SE	–	–	N	E	E	NE	–	–	S	SE	SE
	Rainfall	18	17	2	16	17	–	–	2	18	20	3	–	–	2	17	18

- (i) The information from the coastguard station (Table 6) was presented in the form of a wind rose as shown in Fig. 19.



Key
 = 1 day

Fig. 19

By using information from Table 6, complete the wind rose. [2]

- (ii) Using Fig. 19, state the total number of days when the wind blew from the East. [1]

..... [1]

- (d) Using evidence from Table 6 and Fig. 19, write a conclusion to **Hypothesis 2**: *There is more rainfall when the wind blows from the east and south east.*

.....

 [3]

[Total: 25 marks]