



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



GEOGRAPHY

0460/23

Paper 2

May/June 2011

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 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 on all the work you hand in.

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.

Answer **all** questions.

The Insert contains Photographs A and B for Question 3.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

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.

This document consists of **14** printed pages, **2** blank pages and **1** Insert.



1 The map extract is for Bulawayo, Zimbabwe. The scale is 1:50 000.

(a) Fig. 1 shows the positions of some features in the north east of the map extract.

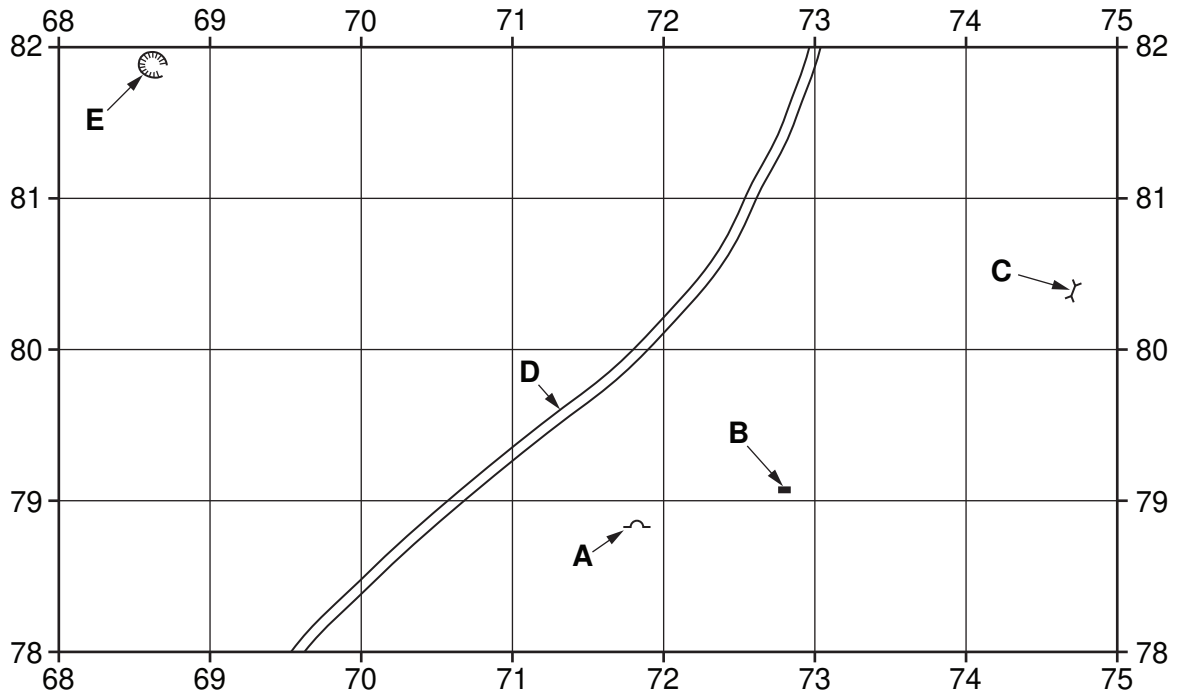


Fig. 1

Study the map and identify the following features shown on Fig. 1:

- (i) the type of house at **A**;
..... [1]
- (ii) the type of public building at **B**;
..... [1]
- (iii) the feature used by farmers at **C**;
..... [1]
- (iv) the type of road marked **D**;
..... [1]
- (v) the feature at **E**.
..... [1]

(b) Fig. 2 shows the area of the map extract to the east of grid line 71 and north of grid line 80.

For
Examiner's
Use

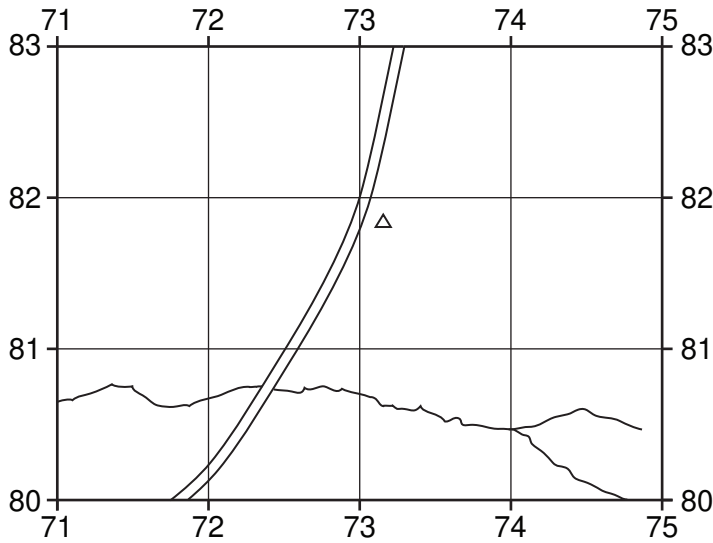


Fig. 2

Describe the area under the following headings:

- slope;
- height of highest point; metres
- compass direction of flow of the stream.[3]

(c) Describe the road patterns in:

- (i) grid square 6766;
.....[1]
- (ii) the north west of grid square 5776.
.....[1]

(d) Fig. 3 shows an area of cultivation in and around grid square 6480.

For
Examiner's
Use

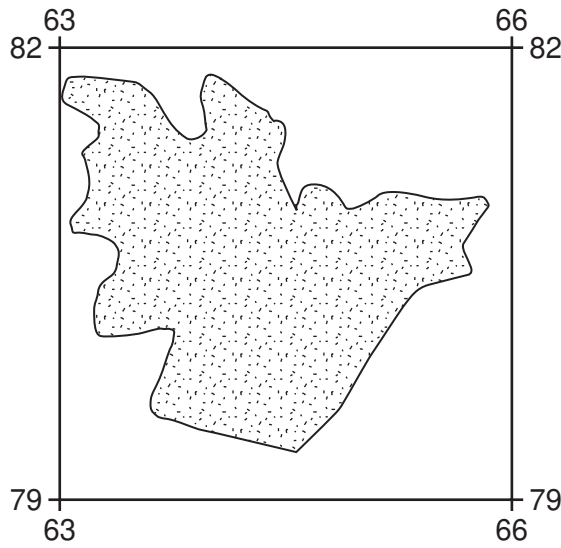


Fig. 3

How is this area of cultivation irrigated?

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

(e) In 1980 the city of Bulawayo occupied much of the map area. Using map evidence **only**, suggest reasons for its site and growth.

.....
.....
.....
.....
.....
.....
.....
.....
..... [4]

- (f) Table 1 shows land uses in Bulawayo. Complete Table 1 to show the main land use in four grid squares. Use **one** tick only for each grid square.

*For
Examiner's
Use*

Table 1

grid square	recreational	high density residential	industrial	low density residential
6173				
6267				
6778				
7070				

[3]

- (g) What feature is at grid reference 675802?

.....[1]

[Total: 20 marks]

2 (a) Fig. 4 shows dispersed, linear and nucleated settlement patterns.

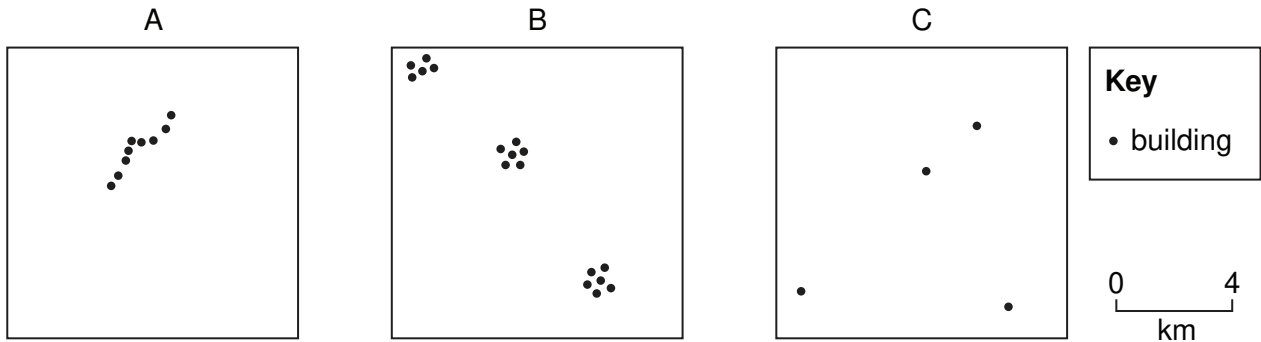


Fig. 4

Using letters A, B and C **once** only, identify the settlement patterns shown in Fig. 4.

dispersed letter

linear letter

nucleated letter

[2]

(b) Fig. 5A is a map of a valley in a mountainous area **in the northern hemisphere** and Fig. 5B (page 7) is a block diagram of the same valley.

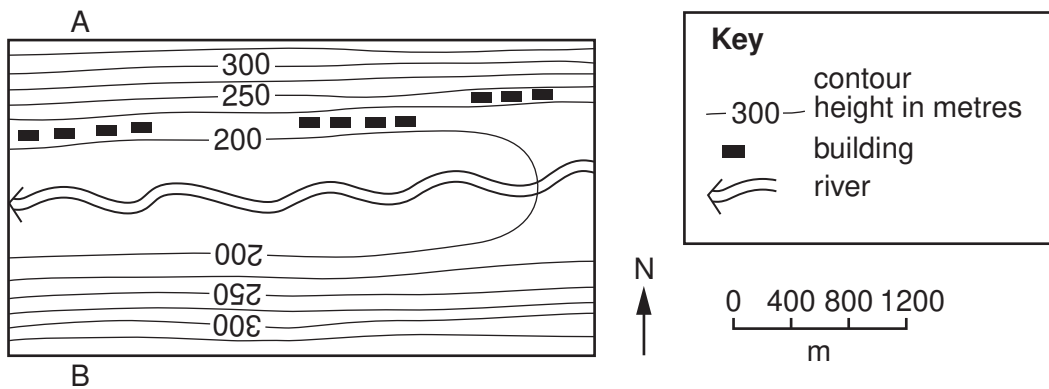


Fig. 5A

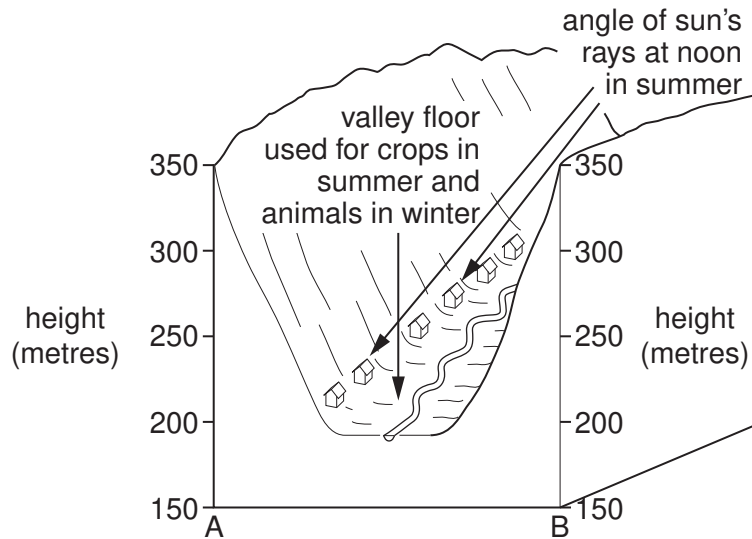


Fig. 5B

(i) Complete the sentence to describe the height range of this settlement.

The settlement lies above metres and below metres. [1]

(ii) Complete the sentence by underlining the correct word to describe the aspect of this settlement.

The settlement is on the east north south west facing slope of the valley. [1]

(iii) Explain the advantages of this location for the settlement.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

[Total: 8 marks]

BLANK PAGE

4 (a) Fig. 6 shows the world distribution of tropical desert vegetation.

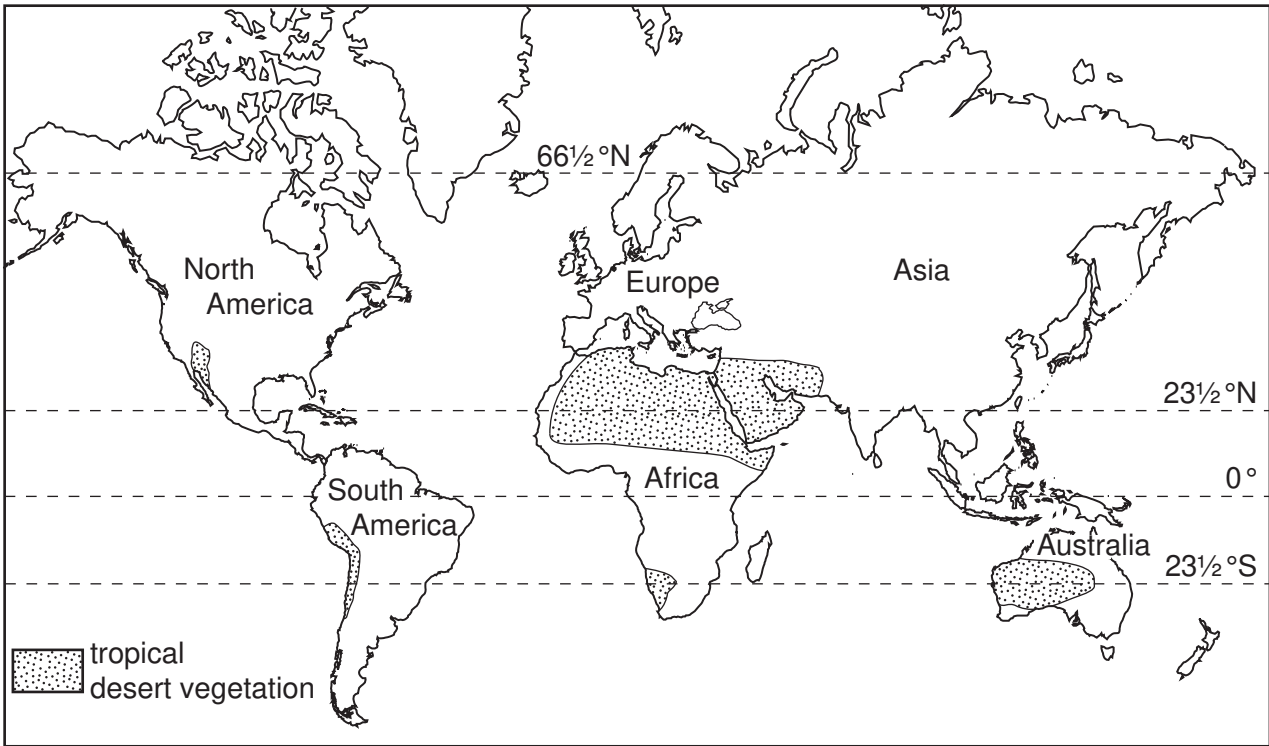


Fig. 6

(i) Circle the correct word to complete the following sentence about the distribution of tropical desert vegetation.

east north south west

Tropical desert vegetation occurs mainly on the side of the continents. [1]

(ii) Compare the extent of tropical desert vegetation in North America and North Africa.

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

(iii) Why is the name tropical desert vegetation not entirely correct for the vegetation shown on the map?

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

(b) Some of the ways in which plants adapt to the tropical desert climate are listed below:

- to be able to live in salty soils;
- to reduce transpiration;
- to reflect the sun;
- to store water;
- to use rainwater before it evaporates;
- to use water in the soil most of the year.

*For
Examiner's
Use*

Complete Table 2 by choosing **one** reason for each adaptation from the list above. You may use a reason more than once.

Table 2

Adaptation	Main reason for the adaptation
deep roots
fleshy stems
very thin and small thorny leaves
leaves curl inwards

[4]

[Total: 8 marks]

- 5 (a) Fig. 7 shows tourist visitors to the island of Lanzarote and its resident population for the years 1970 to 2008.

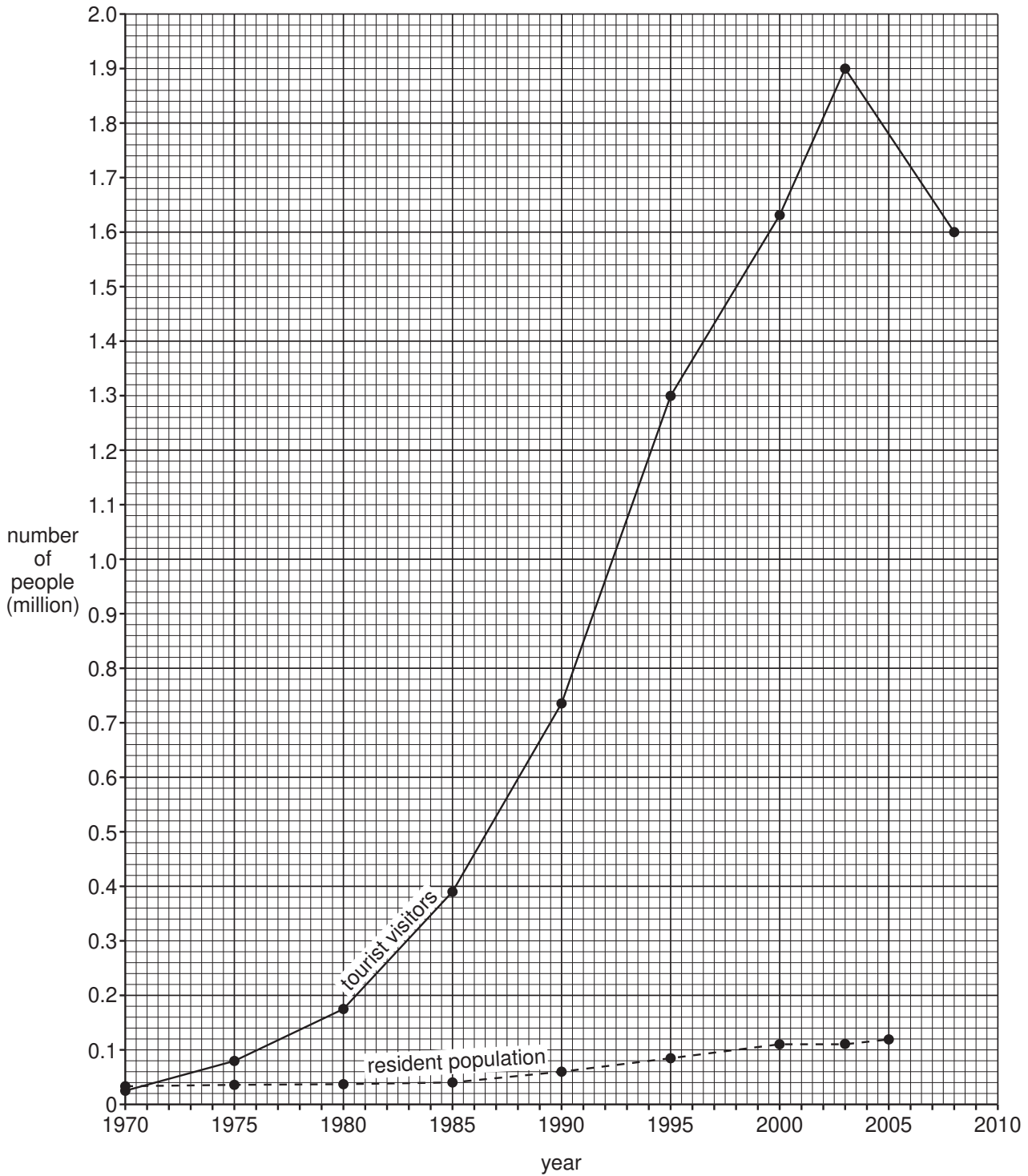


Fig. 7

(i) Complete the graph to show that the resident population in 2008 was 140 000 (0.14 million). [1]

(ii) How many more tourist visitors were there than residents in 2003?
..... million [1]

(iii) Compare the changes in tourist visitors with the changes in resident population between 1970 and 2008.
.....
.....
.....
..... [2]

(b) Fig. 8 gives information about Lanzarote.

Lanzarote is a small island of only 800 square kilometres, which lies off the west coast of Africa near the Sahara Desert. Its barren surface is covered by lava and ash from over 300 volcanic vents. As it has no surface water, forest or mineral wealth, there were few ways of earning a living before 1970. The majority of residents worked in fishing or subsistence farming, using dry farming techniques. By 2009 the island had seen many changes and the government proposed to stop further hotel and apartment construction.

Fig. 8

Use Fig. 8 to answer the following questions:

(i) What was the greatest problem facing the developers of mass tourism on the island?
..... [1]

(ii) Suggest **three** reasons why, in 2009, the government wanted to stop further construction of hotels and apartments.

1
.....
2
.....
3
..... [3]

[Total: 8 marks]

- 6 (a) Fig. 9 shows the average size of subsistence farms in a village in the highlands of Lesotho and the average size of commercial farms in Lesotho.

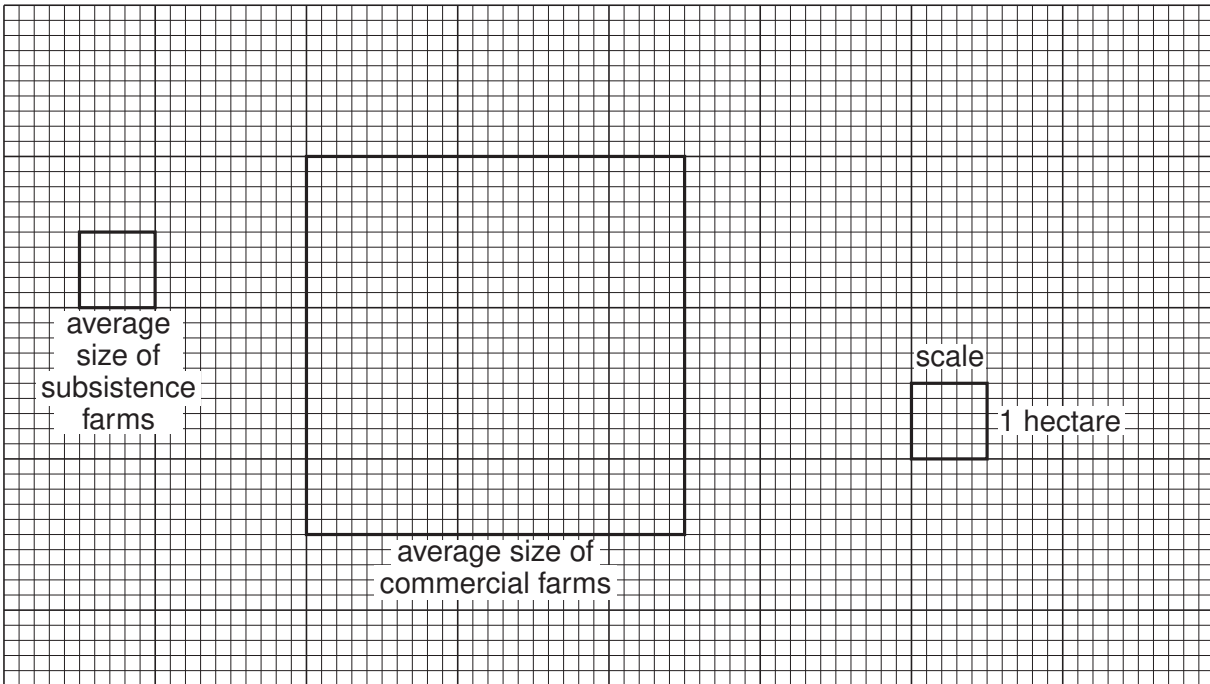


Fig. 9

- (i) What is the average size of a commercial farm in Lesotho?

..... hectares [1]

- (ii) How many times larger is the average commercial farm than the average subsistence farm?

..... [1]

(b) Fig. 10 gives information about the labour used on subsistence farms in the highland village. It also shows farming processes from September in one year to July in the next.

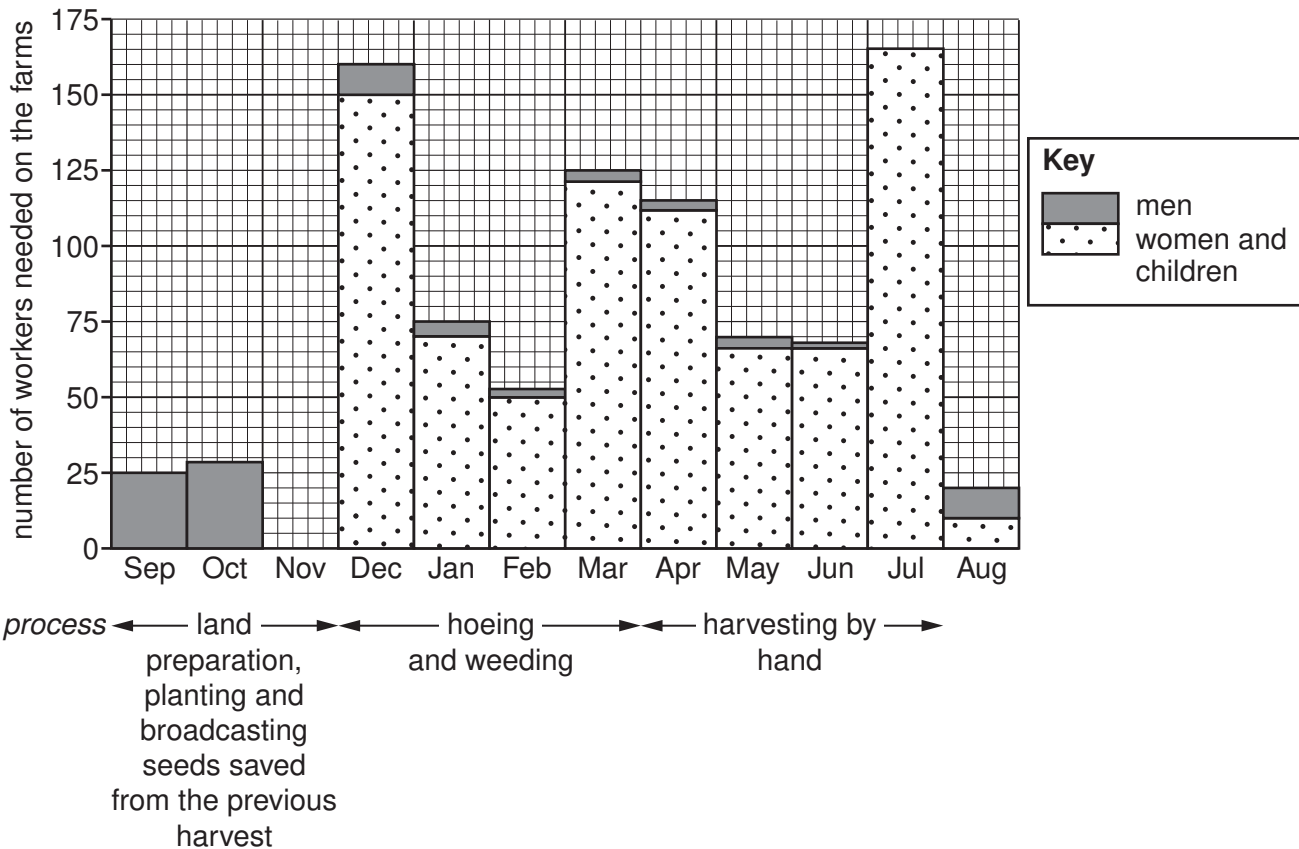


Fig. 10

(i) Table 3 shows the number of workers needed on the farms for November. Use this information to complete Fig. 10.

Table 3

Total	Men	Women and children
95	25	70

[2]

(ii) In which month are most workers needed and which farming process takes place then?

month

process [1]

(iii) What work will be done in August by

the women,

the men?

[2]

(iv) Why does a serious drought in one year reduce yields in the next year?

.....

..... [1]

BLANK PAGE

Copyright Acknowledgements:

Question 3 Photographs A & B M Fretwell; © UCLES.

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.