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GEOGRAPHY **0460/12**

Paper 1 Geographical Themes **October/November 2021**

1 hour 45 minutes

You must answer on the question paper.

You will need: Insert (enclosed)
Calculator
Ruler

INSTRUCTIONS

- Answer **three** questions in total, **one** from each section.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- If additional space is needed, you should use the lined pages at the end of this booklet; the question number or numbers must be clearly shown.

INFORMATION

- The total mark for this paper is 75.
- The number of marks for each question or part question is shown in brackets [ ].
- The insert contains additional resources referred to in the questions.

Definitions
MEDCs – More Economically Developed Countries
LEDCs – Less Economically Developed Countries

This document has **32** pages.

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Section A

Answer **one** question from this section.

1 **(a)** Study Figs. 1.1 and 1.2 (Insert), which are photographs of areas with a low population density.

(i) What is meant by *population density*?

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..... [1]

(ii) State **two** reasons why the climate of the area shown in Fig. 1.1 may result in a low population density.

1 .....

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2 .....

..... [2]

(iii) Suggest **three** different reasons why the area shown in Fig. 1.2 has a low population density.

1 .....

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2 .....

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3 .....

..... [3]

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(iv) Explain why the availability of natural resources may lead to an area becoming densely populated.

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(b) Study Figs. 1.3 and 1.4.
Fig. 1.3 shows information about population distribution in Kenya (an LEDC in Africa).
Fig. 1.4 shows information about relief, rainfall, transport and settlements in Kenya.

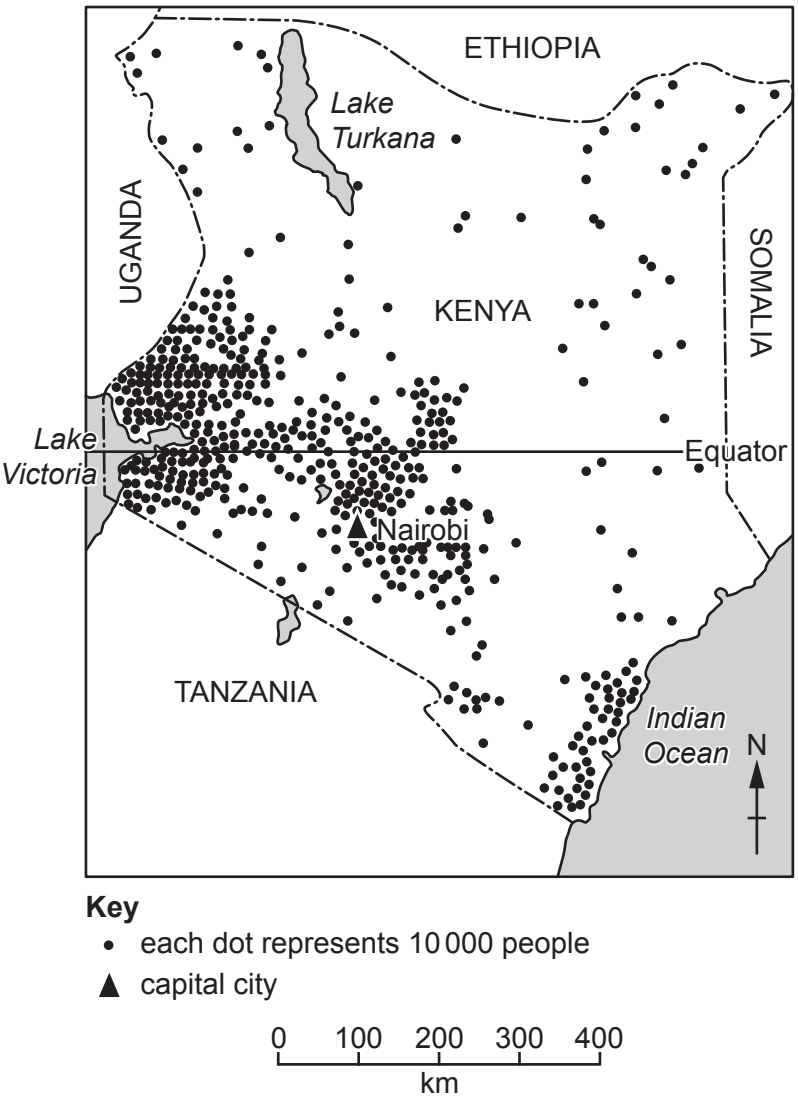


Fig. 1.3

(i) Using Fig. 1.3 **only**, describe the distribution of population in Kenya.

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..... [3]

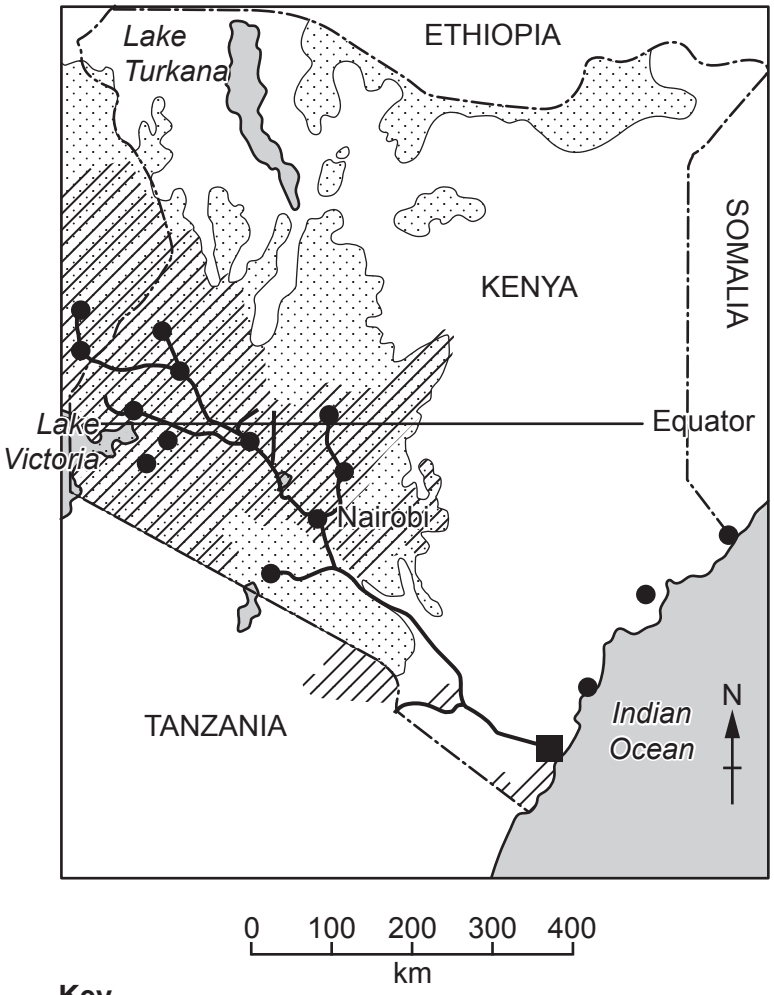

Lake Turkana
ETHIOPIA
SOMALIA
KENYA
Lake Victoria
Equator
Nairobi
TANZANIA
Indian Ocean
N
0 100 200 300 400
km
Key
land over 1000 m above sea level
areas likely to receive more than 750 mm rainfall in four years out of five
railway
major port
important town

Fig. 1.4

(ii) Using information from Figs. 1.3 and 1.4 **only**, suggest reasons for the distribution of population in Kenya.

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(c) For a named country you have studied, describe the impacts of overpopulation.

Name of country .....

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[Total: 25]

2 **(a)** Study Fig. 2.1, which is a map showing a rural area in Sierra Leone (an LEDC in Africa).

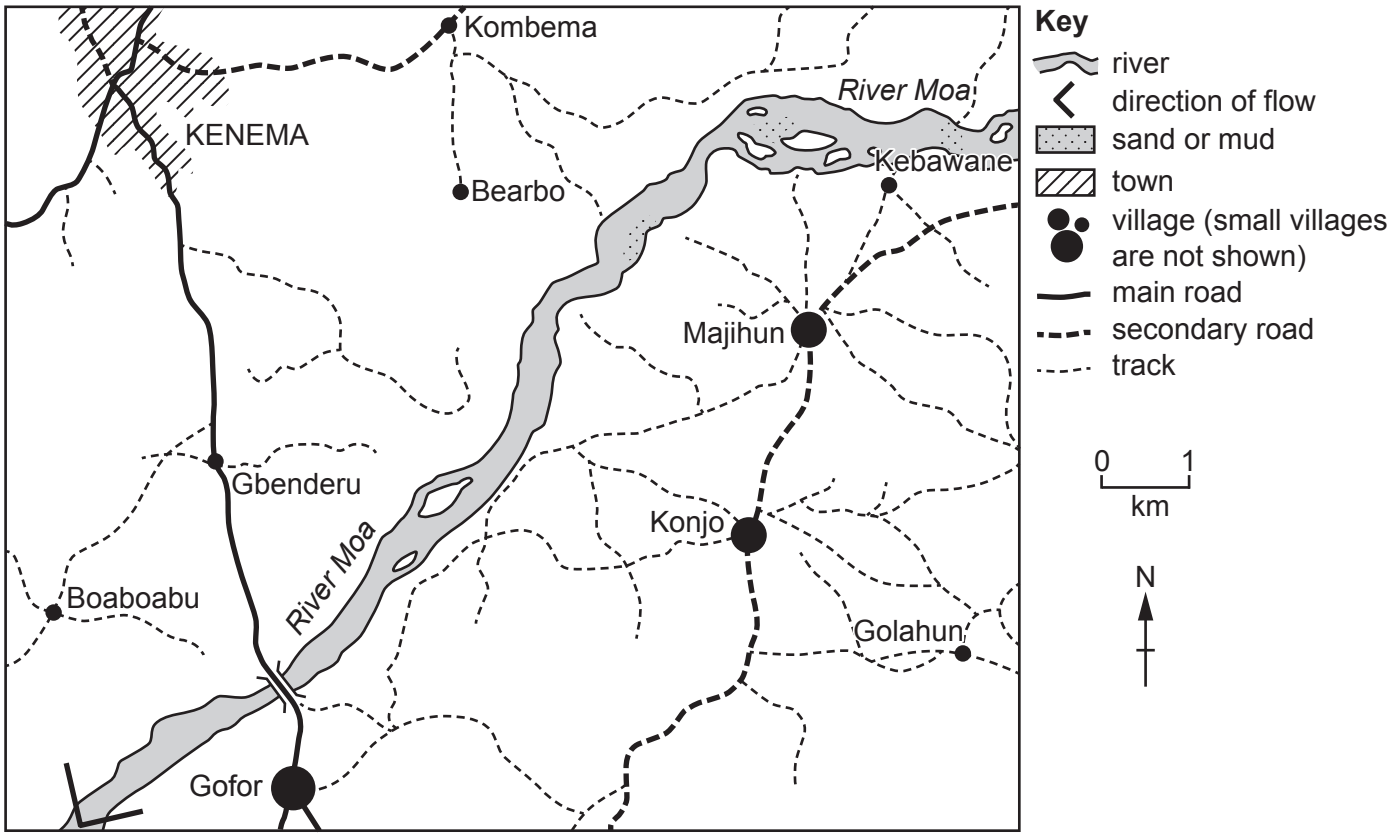


Fig. 2.1

(i) Define the term *rural area*.

.....

..... [1]

(ii) Name the following settlements shown in Fig. 2.1:

the town in the north west of the area .....

the village approximately 8 km south west of Majihun. .....

[2]

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(iii) Choose **one** service from the list below which may be available in a village. Give reasons for your choice.

general store hospital jewellers shoe shop

Service .....

Reasons .....

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..... [3]

(iv) The only secondary school in the area shown in Fig. 2.1 is in Kenema.
Suggest why only a few of the children who live in Konjo are likely to attend secondary school.

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(b) Study Fig. 2.2, which shows three different rural settlement patterns.

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Fig. 2.2

(i) Name the settlement pattern shown in each of maps **A**, **B** and **C**.

Map **A** .....

Map **B** .....

Map **C** ..... [3]

(ii) Explain why different settlement patterns develop in rural areas.

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..... [5]

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(c) For a named **urban area** you have studied, describe and explain the characteristics of the Central Business District (CBD).

Name of urban area ....

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[Total: 25]

Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 3.1, which shows four climatic zones.

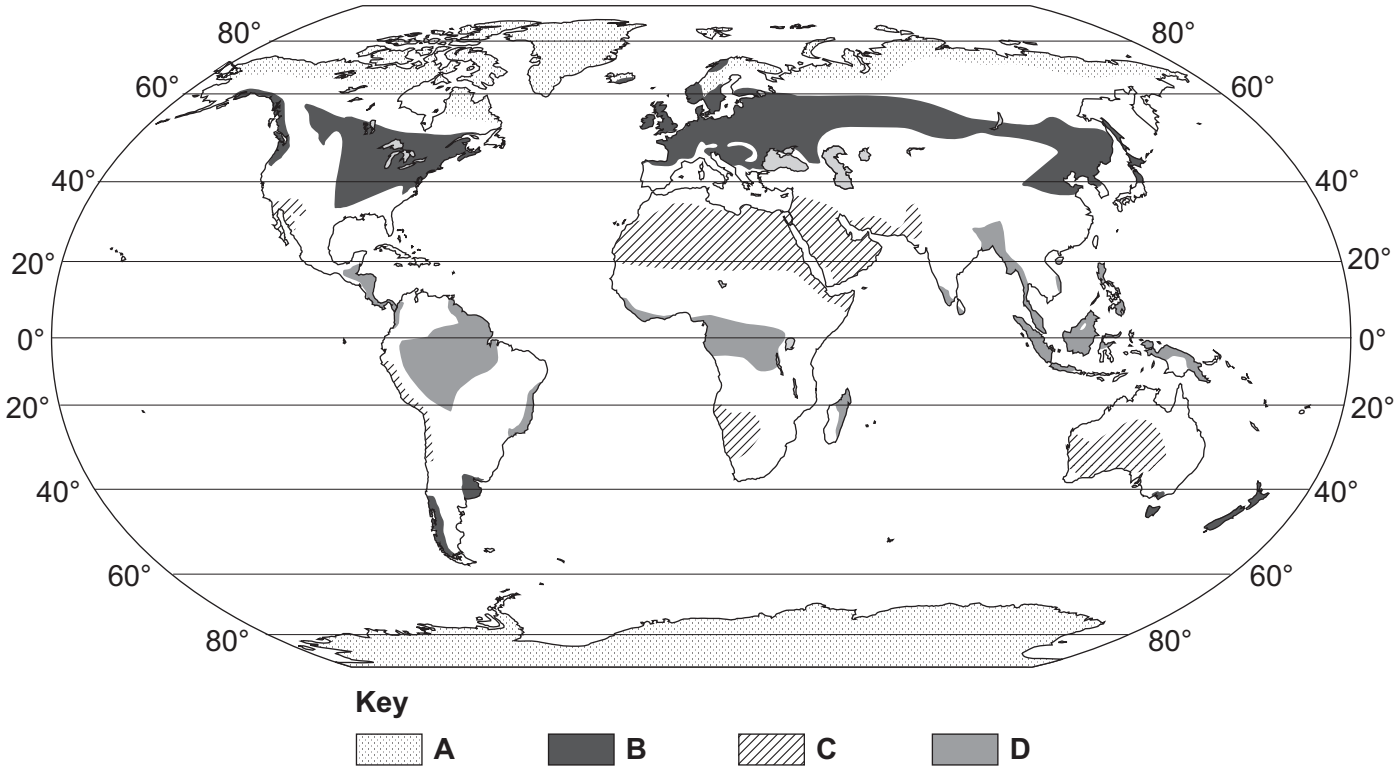


Fig. 3.1

(i) Which zone (**A**, **B** or **C**) in Fig. 3.1 has a hot desert climate?

..... [1]

(ii) Zone **D** in Fig. 3.1 has an **equatorial** climate. Describe the distribution of the areas with an equatorial climate.

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..... [2]

(iii) Explain why temperatures are high all year round in **equatorial** areas.

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..... [3]

(iv) Explain why rainfall is very low in **hot desert** areas.

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(b) Study Fig. 3.2, which shows the reasons for the deforestation of tropical rainforests in Africa and South America.

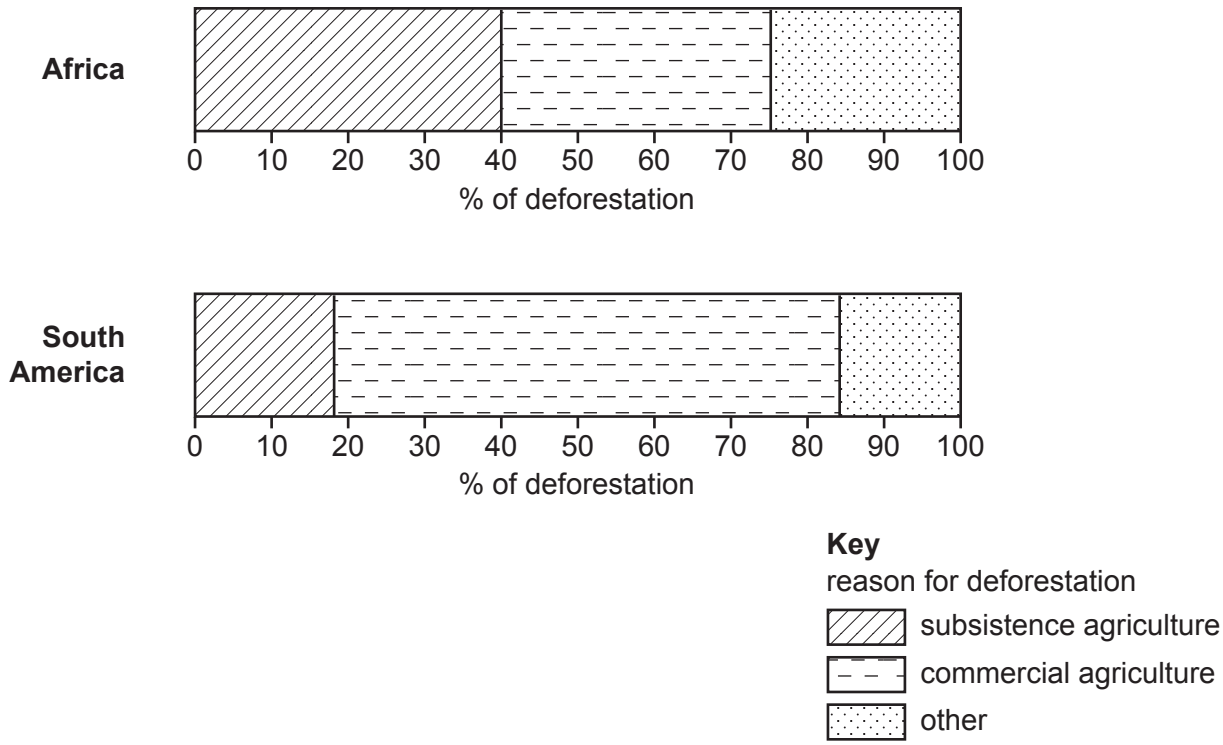


Fig. 3.2

(i) Using Fig. 3.2 **only**, compare the percentage of the tropical rainforests deforested for agriculture in Africa and South America. Use statistics in your answer.

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..... [3]

(ii) Suggest other reasons (**not** agriculture) why the tropical rainforest in Africa and South America has been deforested.

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(c) For a named area of tropical rainforest you have studied, explain how deforestation is threatening the **local** natural environment.

Area of tropical rainforest ....

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[Total: 25]

4 **(a)** Study Figs. 4.1, 4.2, 4.3 and 4.4 (Insert), which are photographs taken in the Borders region of Scotland. This is an area where coastal erosion is taking place.

(i) What is meant by the term *coastal erosion*?

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..... [1]

(ii) Use the following descriptions to identify the correct photograph from Figs. 4.1, 4.2, 4.3 and 4.4.

- a cliff coastline with a stack, stumps and one large wave-cut platform

Fig. .....

- a sandy bay with separate small areas of wave-cut platform exposed at low tide.

Fig. .....

[2]

(iii) The coastline shown in Figs. 4.1, 4.2, 4.3 and 4.4 has been eroded by corrasion (abrasion), corrosion and hydraulic action.
Define these terms.

corrasion (abrasion) .....

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corrosion .....

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hydraulic action .....

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..... [3]

(iv) Suggest reasons why people live along the coastline shown in Figs. 4.1, 4.2, 4.3 and 4.4.

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(b) Study Fig. 4.5, which shows the Godavari sand spit in Andhra Pradesh, India.

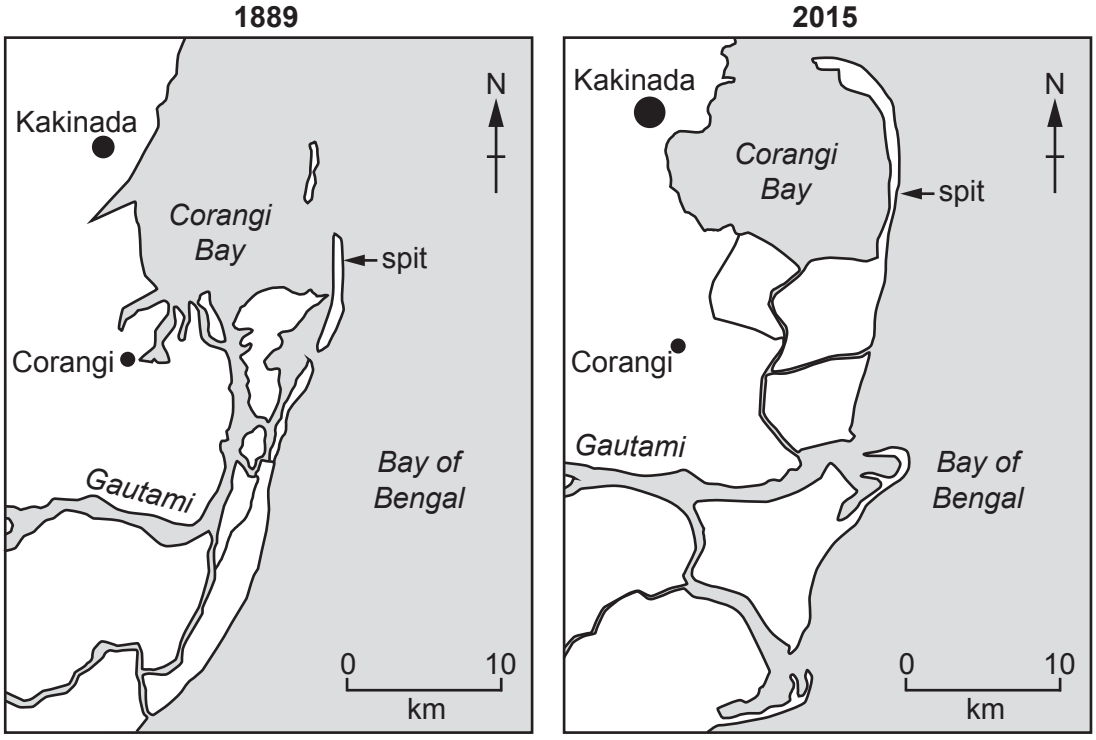


Fig. 4.5

(i) Describe how the Godavari sand spit changed between 1889 and 2015.

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..... [3]

(ii) Suggest how coastal processes changed the Godavari sand spit between 1889 and 2015.

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..... [5]

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(c) For a named area of coastline you have studied, explain how coastal erosion is managed.

Name of area .....

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[Total: 25]

Section C

Answer **one** question from this section.

5 **(a)** Study Fig. 5.1, which shows a systems diagram for commercial farming, and Fig. 5.2 (Insert), which is a photograph of a commercial farm.

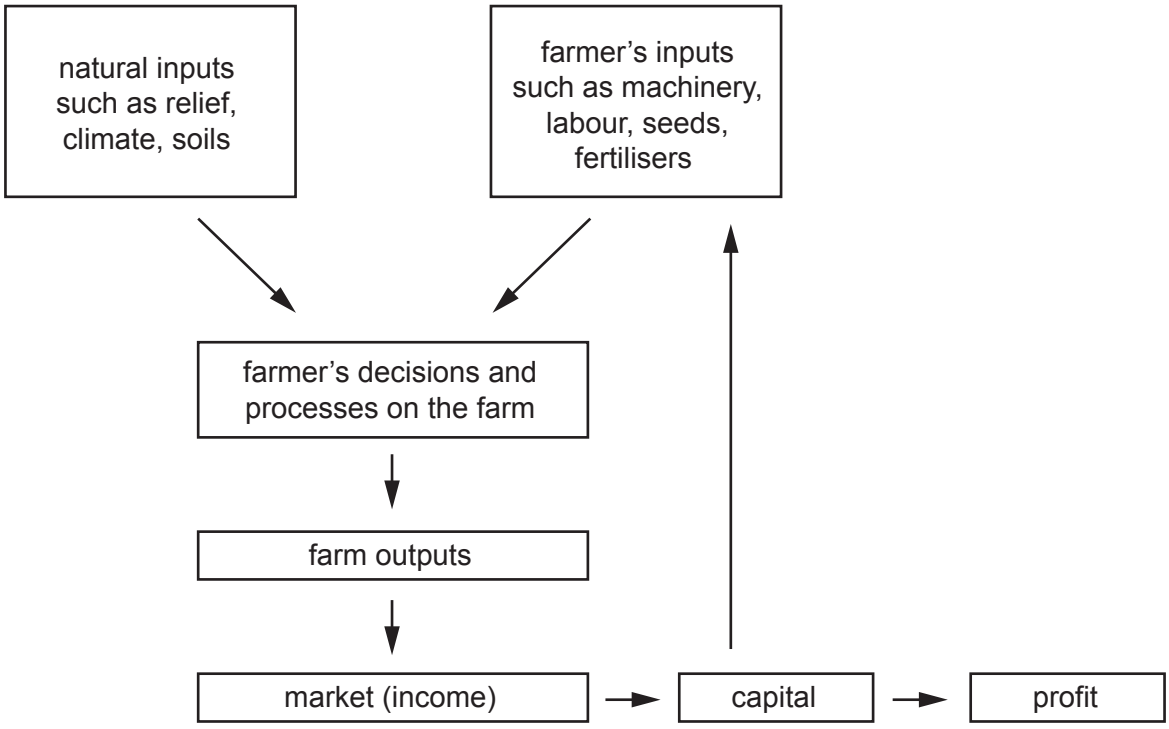


Fig. 5.1

(i) What is meant by *commercial* farming?

.....

..... [1]

(ii) Which **two** of the following are **natural inputs** of the commercial farm shown in Fig. 5.2?

Circle your answers in the list below:

chemical fertiliser	farm workers	fertile soils	
gentle slopes	irrigation sprays	tractor	[2]

(iii) Explain how farmers can benefit from being near a large urban area.

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..... [3]

(iv) State **two** different climatic factors which affect farming. For each factor give an example of how it can influence land use.

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(b) Study Fig. 5.3, which shows information about a year's work on a mixed farm.

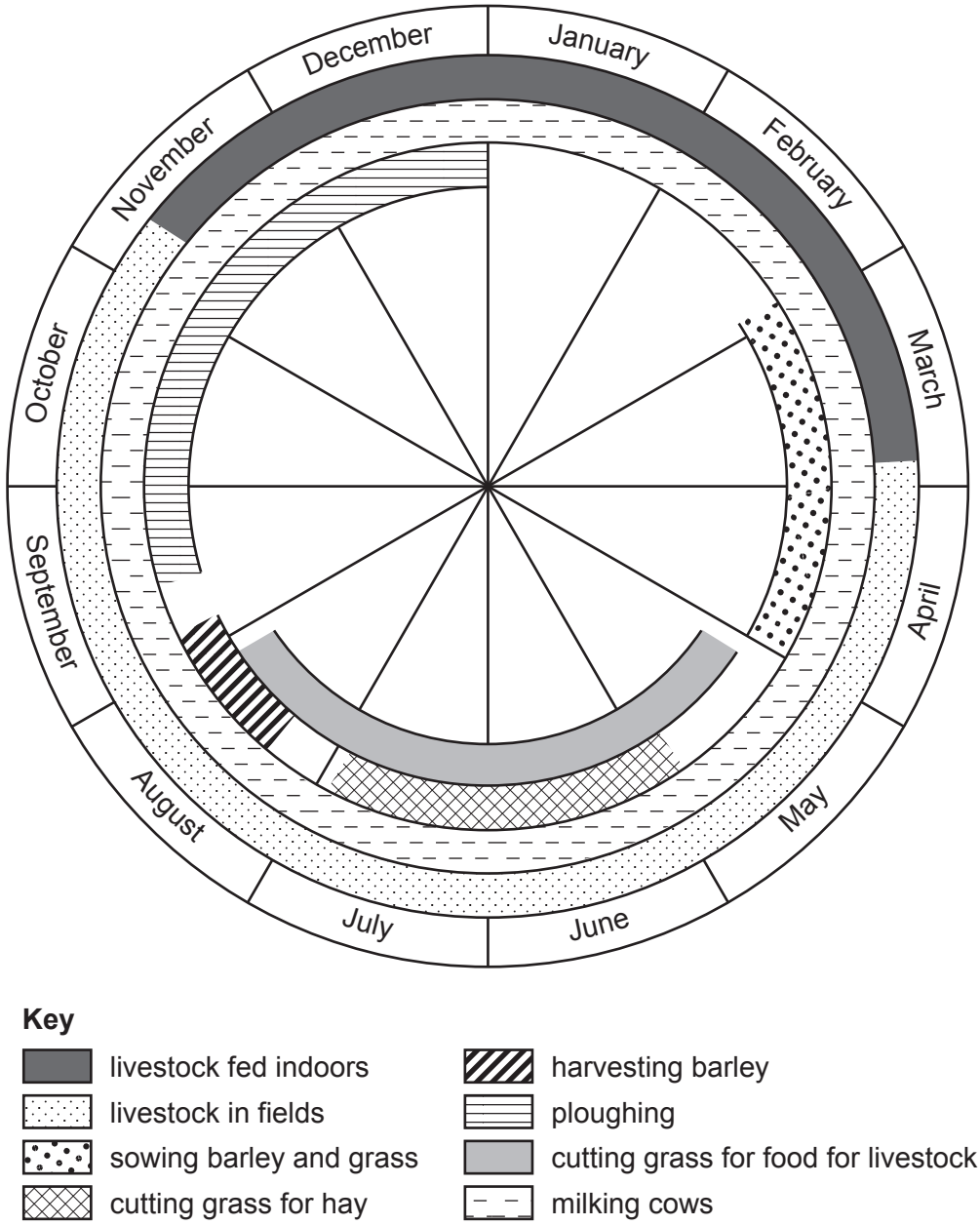


Fig. 5.3

(i) Using Fig. 5.3 **only**, state **three** processes which take place on the farm in December.

1 .....

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2 .....

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(ii) Explain why many farms are mixed farms.

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(c) For a named country or region you have studied, explain why food shortages occur.

Name of country or region .....

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[Total: 25]

6 **(a)** Study Fig. 6.1, which shows a flow diagram of a processing industry.

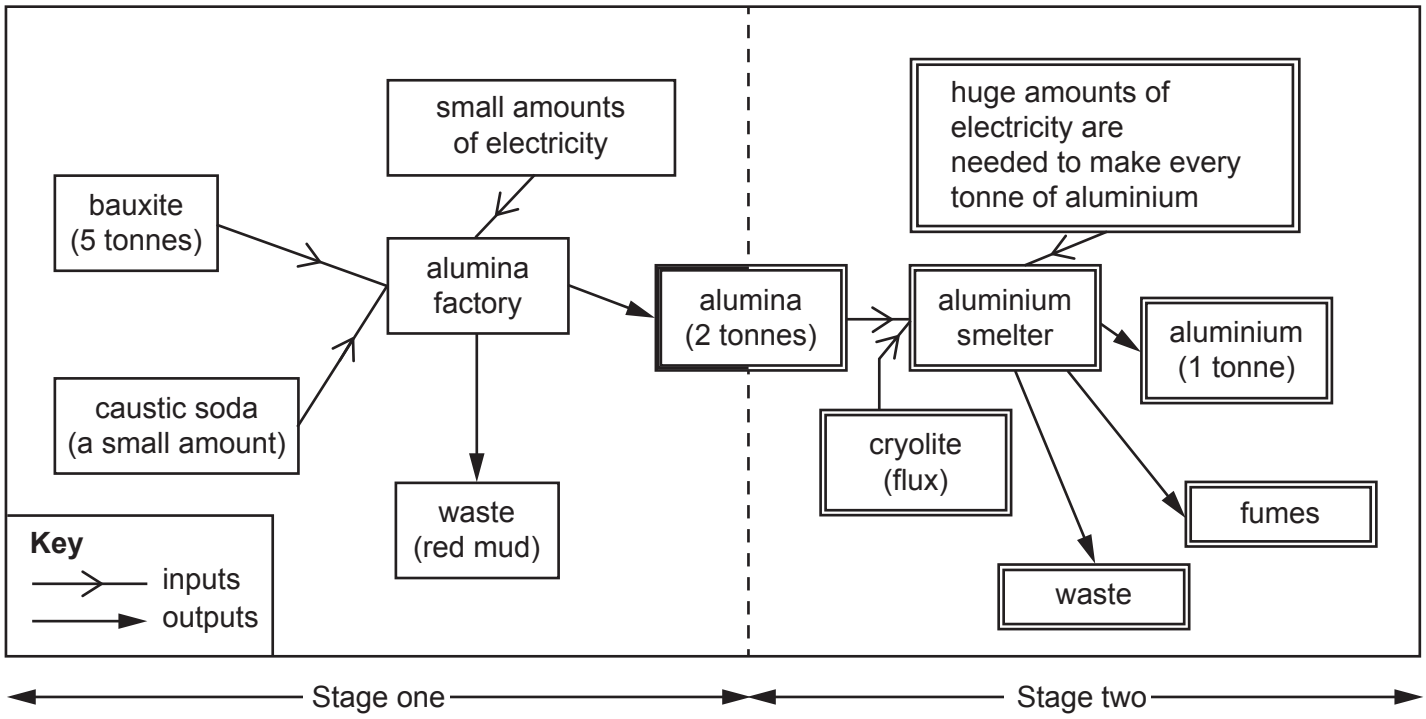


Fig. 6.1

(i) What is meant by a *processing* industry?

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..... [1]

(ii) Using Fig. 6.1 **only**, identify **two** outputs of the processing industry shown.

1 .....

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2 .....

..... [2]

(iii) Suggest reasons why the alumina factory in Stage 1 of the processing industry shown in Fig. 6.1 is located close to areas where bauxite is quarried.

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(iv) Explain why many companies which produce aluminium build their own hydro-electric power (HEP) stations next to the alumina smelters shown in Stage 2 of Fig. 6.1.

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..... [4]

(b) Study Fig. 6.2 (Insert), which shows a map of part of Cape Town in South Africa.

(i) Suggest how the following have encouraged the growth of manufacturing industry in Cape Town.

Roads and railways .....

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Docks .....

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A large urban population .....

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..... [3]

(ii) Suggest reasons why the owners of some factories in Cape Town are considering moving their factories to different locations.

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..... [5]

(c) For a named country or area you have studied, explain how sufficient water is supplied for industrial use.

Name of country or area .....

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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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