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0460/11

May/June 2011

1 hour 45 minutes

Additional Materials: Ruler

DO **NOT** WRITE ON ANY BARCODES.

If additional space is required, you should use the lined page at the end of this booklet. The question number(s) 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.

This document consists of **25** printed pages, **3** blank pages and **1** Insert.

QUESTION 1

(a) Study Fig. 1, which shows densely and sparsely populated areas in the world.

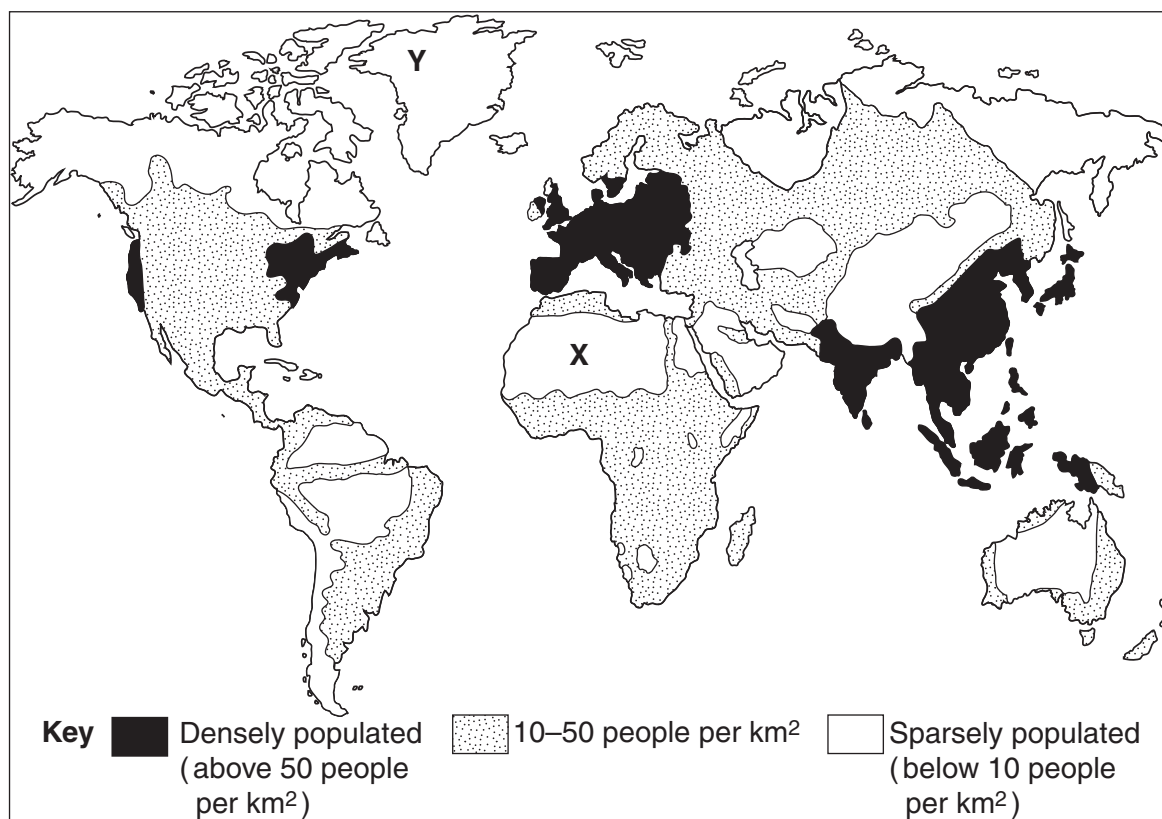


Fig. 1

(i) What is meant by a *densely populated area*?

.....
[1]

(ii) Name a densely populated area shown on Fig. 1:

A with a temperate climate;

B in South East Asia.[2]

(iii) For **either** the area marked **X** or the area marked **Y** on Fig. 1, suggest reasons why it is sparsely populated.

Area chosen

.....

[3]

(b) Study Photographs A and B (Insert) which show two areas which are sparsely populated.

(i) Suggest reasons why the area shown in Photograph A is sparsely populated.

.....

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.....[3]

(ii) Suggest how the relief of the land shown in Photograph B has resulted in the area being sparsely populated.

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.....[4]

(iii) Explain why some river valleys are **densely** populated.

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.....[5]

- (c)** For a named country which you have studied, describe and explain the distribution of its population.

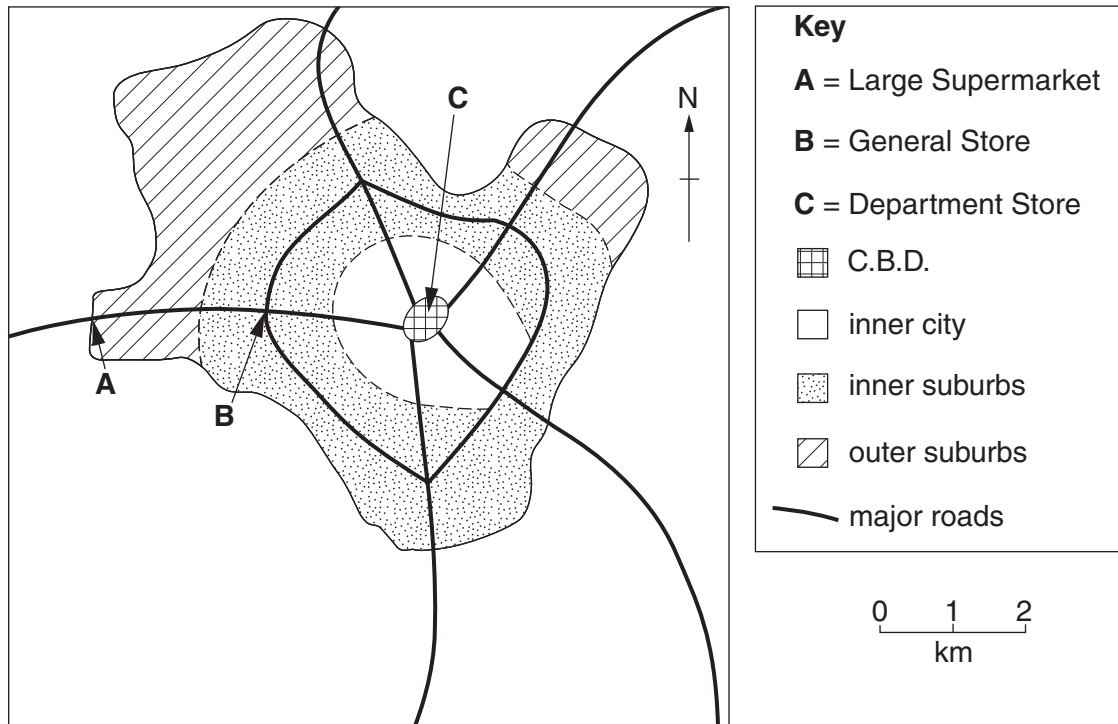
Name of country

[Total: 25 marks]

END OF QUESTION 1

QUESTION 2

(a) Study Fig. 2, which shows information about three different shops in a city in an MEDC.



**Results of pupil questionnaire comparing frequency of visits to shops
(% of customers interviewed)**

	daily	weekly	every 2 weeks	monthly or less frequently
Large supermarket	0	56	34	10
General store	35	35	15	15
Department store	0	10	16	74

Fig. 2

(i) Identify the shop which is likely to have the smallest sphere of influence.

.....[1]

(ii) Compare the frequency of visits to the large supermarket with the frequency of visits to the department store.

.....

.....

.....

.....[2]

- (iii) Suggest reasons for the difference in the frequency of visits to the three shops.

.....

.....

.....

.....

.....[3]

- (iv) Explain why new retail outlets, like the supermarket in Fig.2, are located in the rural-urban fringe.

.....

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.....[4]

- (b) Study Fig. 3, which shows information about the population and number of shops in towns in an MEDC.

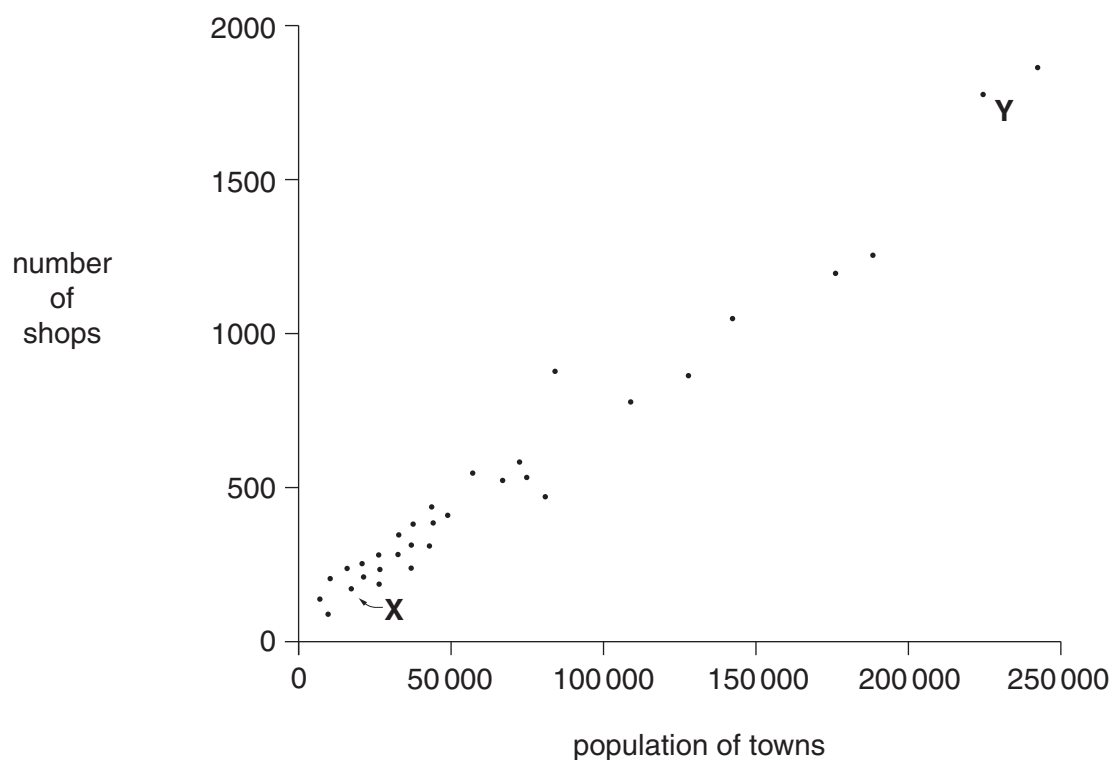


Fig. 3

- (i) What relationship exists between the population of towns and the number of shops?
Use data from Fig. 3 in your answer.

.....

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.....[3]

- (ii) In what other ways will the shops and shopping areas in town **X** differ from those in town **Y**?

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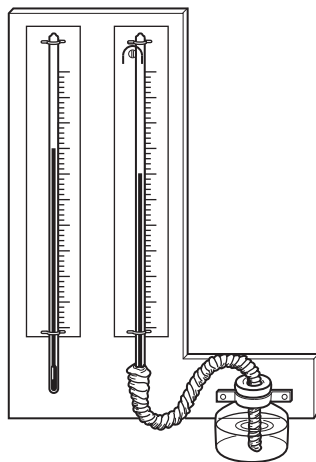
.....[5]

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TURN OVER FOR QUESTION 3

QUESTION 3

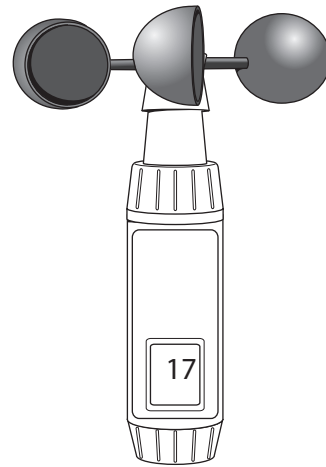
- (a) Study Fig. 4, which shows four instruments which students are using to measure the weather at a school weather station.



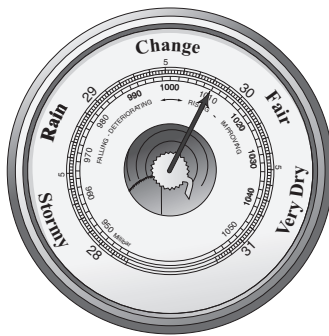
dry bulb 30°C
wet bulb 20°C

wet bulb depression = 10°C

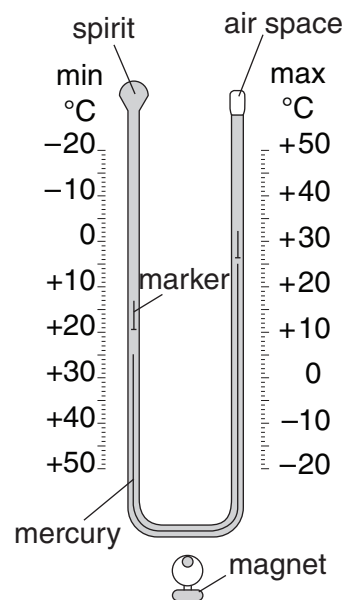
Instrument A



Instrument B



Instrument C



Instrument D

Fig. 4

- (i) Which weather characteristic will the students measure with instrument **A**?

..... [1]

- (ii) Identify the weather instruments labelled **B** and **C**.

Instrument **B**

Instrument **C** [2]

- (iii) Use instrument **D** to work out the daily range of temperature. Show your calculations.

.....

 [3]

- (iv) Explain why instrument **B** will give more accurate readings if it is sited on the roof of the school, rather than in the playground.

.....

 [4]

- (b) Study Fig. 5, which shows a Stevenson Screen which the students will use in their school weather station.

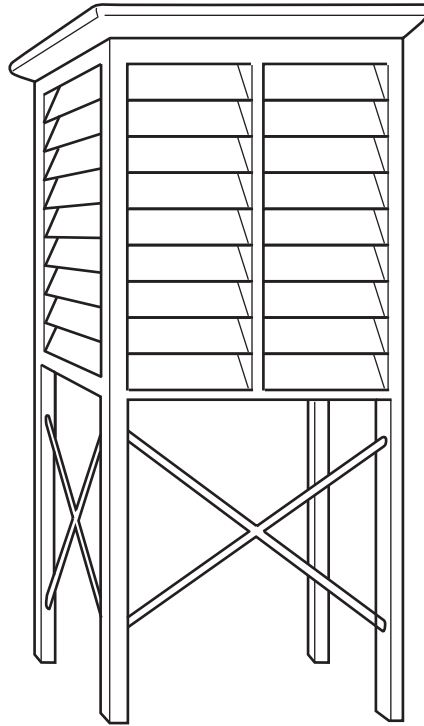


Fig. 5

- (i) Identify the characteristics of the Stevenson Screen which:

- A** reflect the sun's rays;
-
- B** allow free flow of air;
-
- C** ensure that the thermometers inside it measure the temperature of the air not the ground.
-[3]

- (ii) What advice would you give the students about where to site the Stevenson Screen? Give reasons for your answer.

.....[5]

- (c)** Name an area which you have studied where tropical storms occur. Describe the problems which they cause for people living in your chosen area.

[illegible]

[Total: 25 marks]

END OF QUESTION 3

QUESTION 4

(a) Study Fig. 6, which is a climate graph for Belem, a settlement in the tropical rainforest.

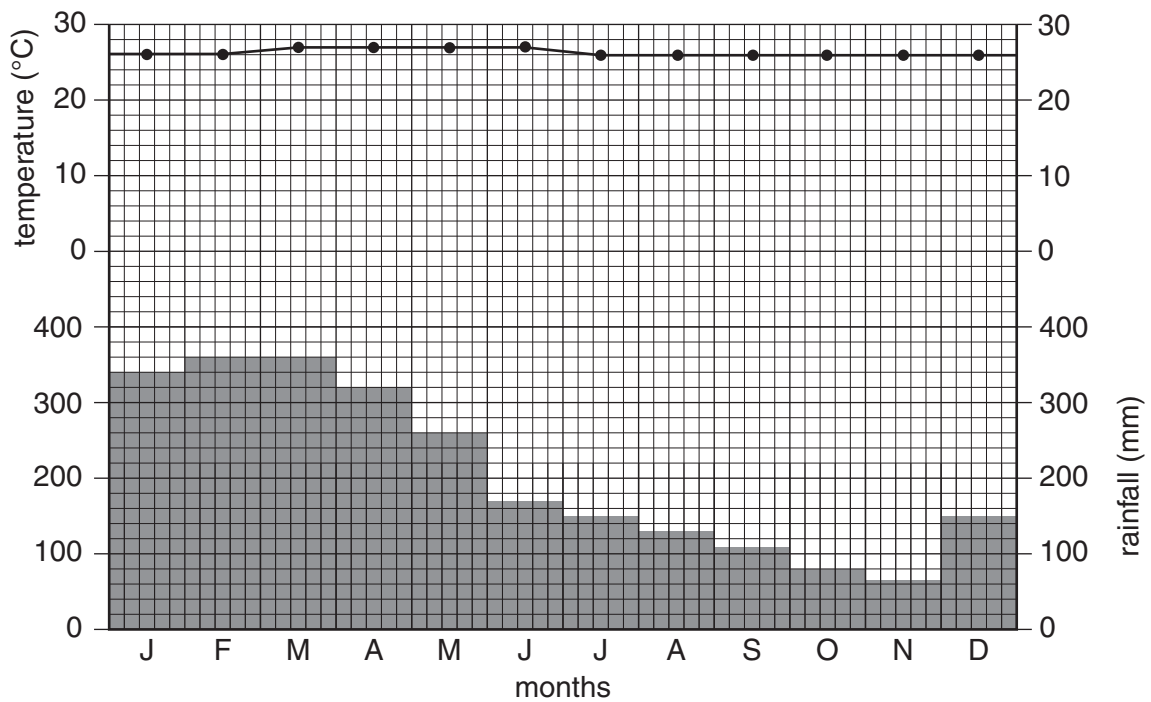


Fig. 6

(i) Name **one** month with over 300 mm of rainfall.

.....

[1]

(ii) Describe **two** features of the temperatures at Belem which are typical of a rainforest climate.

1

.....

.....

2

.....

.....[2]

- (iii)** Explain why the climate of places like Belem results in the growth of rainforests.

[3]

- (iv)** Describe the characteristics of the natural vegetation in a tropical rainforest.

[4]

(b) Study Fig. 7, which shows deforestation of an area of tropical rainforest.



Fig. 7

(i) Suggest **three** reasons why large scale deforestation of the tropical rainforest is taking place.

- 1
-
- 2
-
- 3
-[3]

(ii) Describe the impacts of deforestation on the natural environment of the tropical rainforest.

-
-
-
-
-
-
-
-
-
-[5]

- (c)** For a named area of **tropical desert** which you have studied, describe and explain the characteristics of its climate.

Area of tropical desert

[7]

[Total: 25 marks]

END OF QUESTION 4

QUESTION 5

(a) Study Fig. 8, which is a map showing countries in Africa experiencing food shortages.

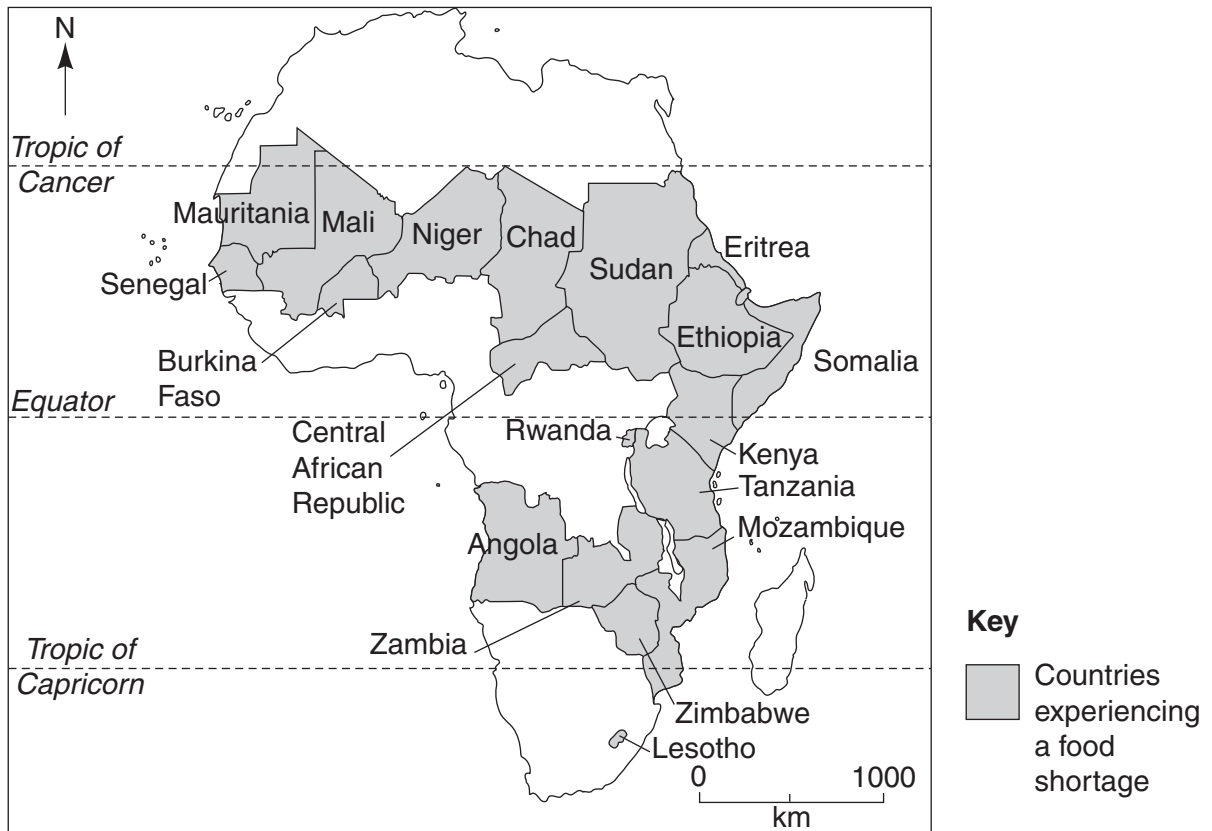


Fig. 8

(i) Describe **one** problem which a shortage of food can cause for people.

.....

.....

.....[1]

(ii) Describe the distribution of countries in Africa which are facing a food shortage.

.....

.....

.....

.....

.....

.....[2]

(iii) Give **three** different natural events which could cause food shortages.

- 1
-
- 2
-
- 3
-[3]

(iv) Explain why a poor harvest of food crops is likely to have a greater impact on an LEDC in Africa than an MEDC in Europe.

-
-
-
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-[4]

(b) Study Fig. 9, which shows ways in which soil can be damaged.

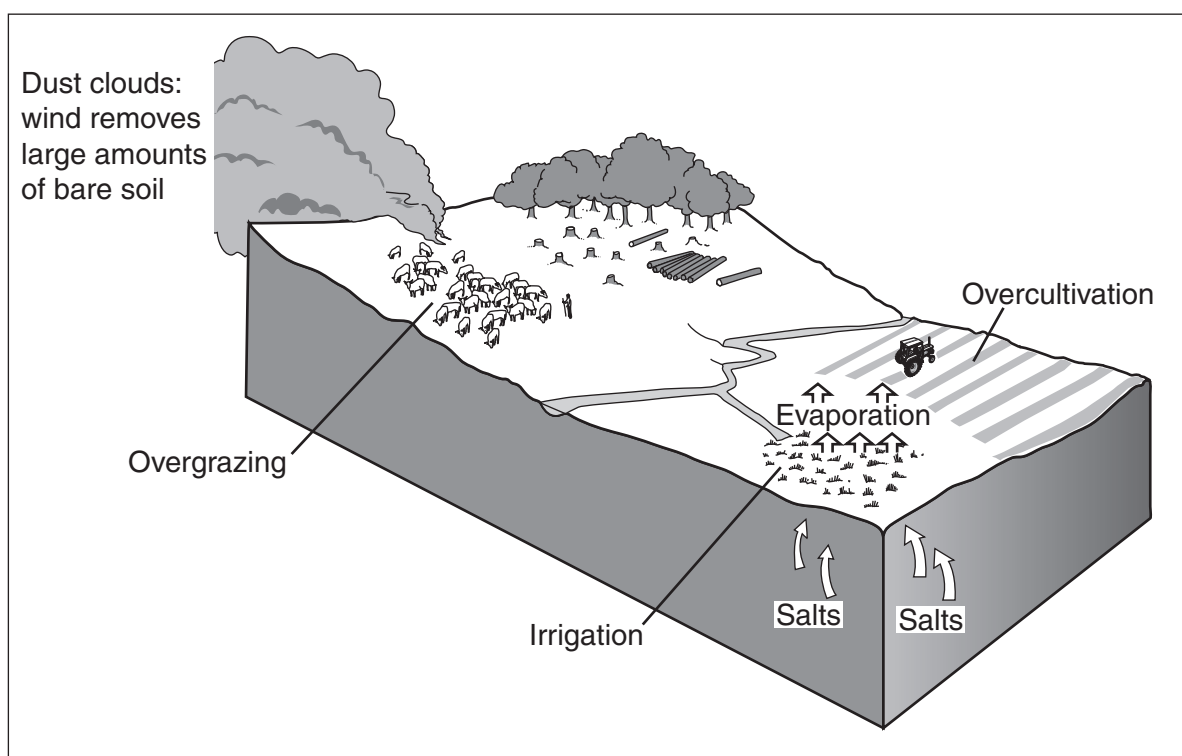


Fig. 9

(i) Explain how soil can be damaged by:

A overgrazing;

.....

B overcultivation;

.....

C irrigation.

.....
[3]

- (ii)** Explain how the quality of the soil can be maintained and soil erosion reduced.

[5]

- (c)** Name an area where large-scale commercial farming takes place. Describe the inputs, processes and outputs of this farming system.

Name of area

[Total: 25 marks]

END OF QUESTION 5

QUESTION 6

(a) Study Fig. 10, which shows different types of pollution.

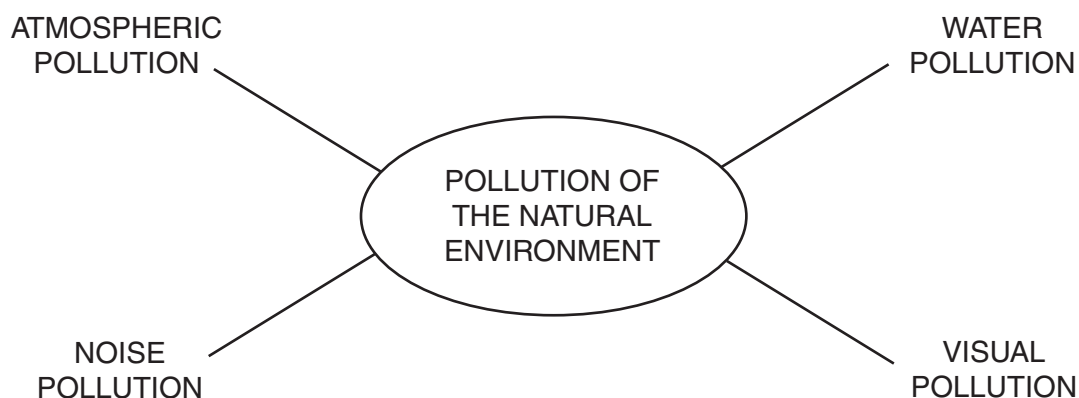


Fig. 10

(i) What is meant by *pollution*?

.....

.....

.....

.....[1]

(ii) Describe **two** different ways in which pollution can be caused by the use of transport.

1

.....

.....

2

.....

.....[2]

- (iii) Explain why, in many countries, industrial waste is released into rivers, lakes and seas.

.....

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.....[3]

- (iv) Give **one** global problem which can be caused by atmospheric pollution.
Explain how atmospheric pollution can cause this problem.

Name of problem

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.....[4]

- (b) Study Fig. 11, which shows newspaper extracts about two proposed new developments in an LEDC in Central America.

Extract 1

NEW AIRPORT PLANNED

A public enquiry will be held about the plans to build an international airport on the coastal plains and sand dunes to cater for the increasing size of planes bringing tourists to

Extract 2

**PLANS ANNOUNCED TO BUILD
NEW INCINERATOR**

A multi-national company plans to build a waste recycling plant and an incinerator to burn household rubbish on a site on the edge of the city of

Fig. 11

- (i) Choose **one** of the proposed new developments and write down the number of the extract which you have chosen. Explain **three** different ways in which the proposed development could damage the local natural environment.

Name of development

1

.....

.....

2

.....

.....

3

.....

.....[3]

- (ii)** Suggest what could be done to ensure that your chosen development is sustainable.

.....[5]

- (c)** For a named country or area which you have studied, describe the ways in which energy supplies are being developed.

Name of country or area

[7]

[Total: 25 marks]

END OF QUESTION 6

Additional Page

If you use the following lined page to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

This image shows a full page of a handwriting practice worksheet. It consists of multiple rows of horizontal dashed lines spaced evenly down the page, providing a guide for letter height and placement. The background is plain white, and there are no other markings or text present.

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