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GEOGRAPHY **0460/13**

Paper 1 Geographical Themes **May/June 2022**

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. Any blank pages are indicated.

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Section A

Answer **one** question from this section.

1 **(a)** Study Figs. 1.1, 1.2 and 1.3, which show information about Libya, an LEDC in North Africa.
Fig. 1.1 shows information about population density.
Fig. 1.2 shows information about rainfall.
Fig. 1.3 shows information about temperature.

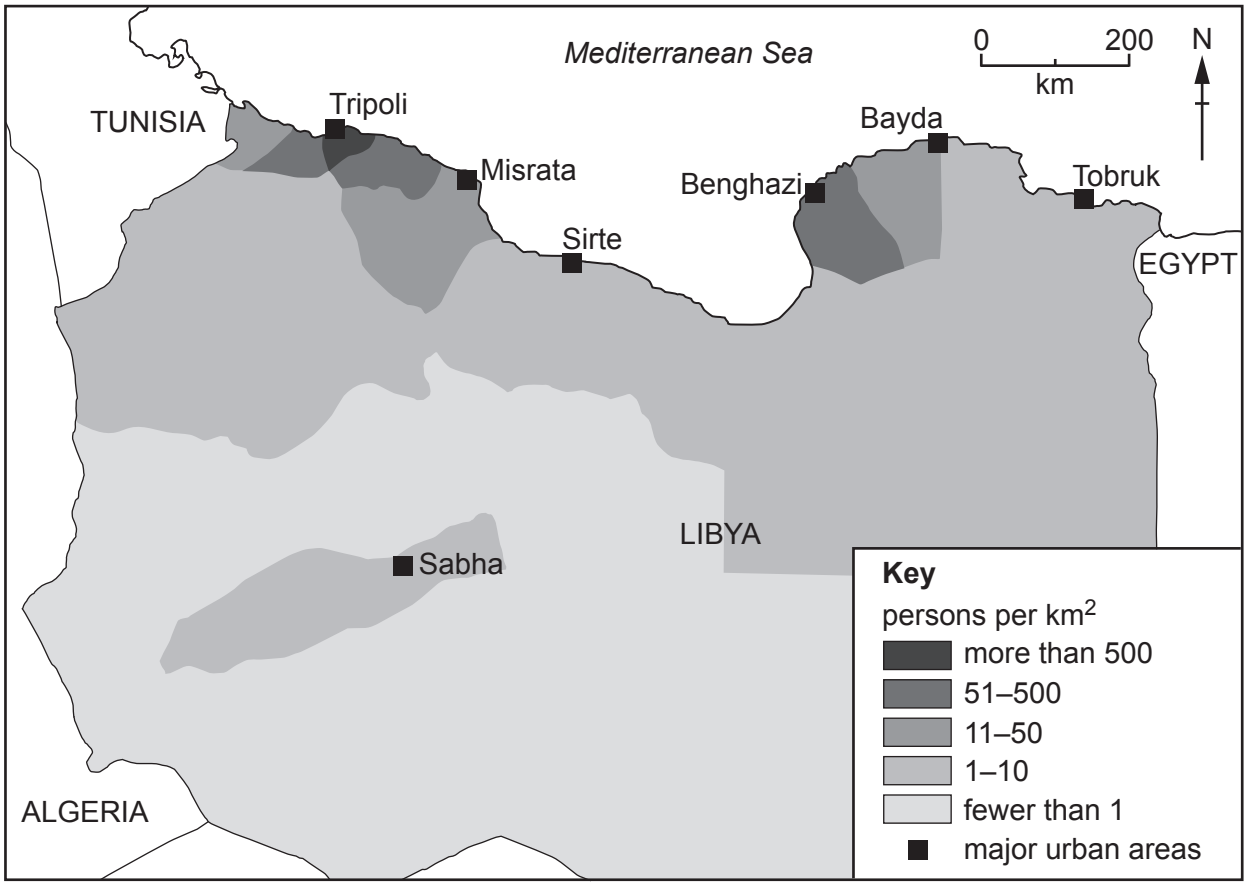


Fig. 1.1

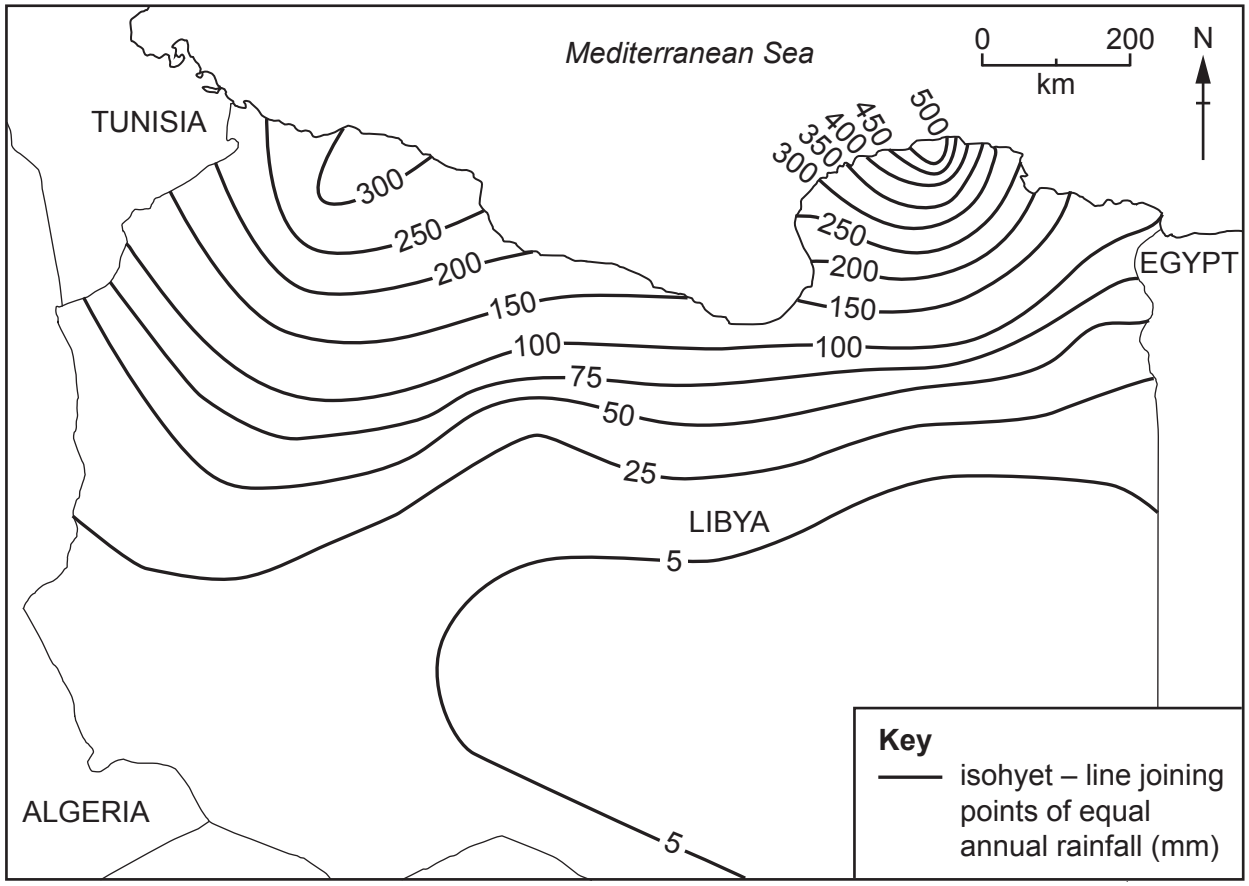

Mediterranean Sea
0
200
km
N
TUNISIA
EGYPT
LIBYA
ALGERIA
300
250
200
150
100
75
50
25
5
500
450
400
350
300
250
200
150
100
5
Key
isohyet – line joining points of equal annual rainfall (mm)

Fig. 1.2

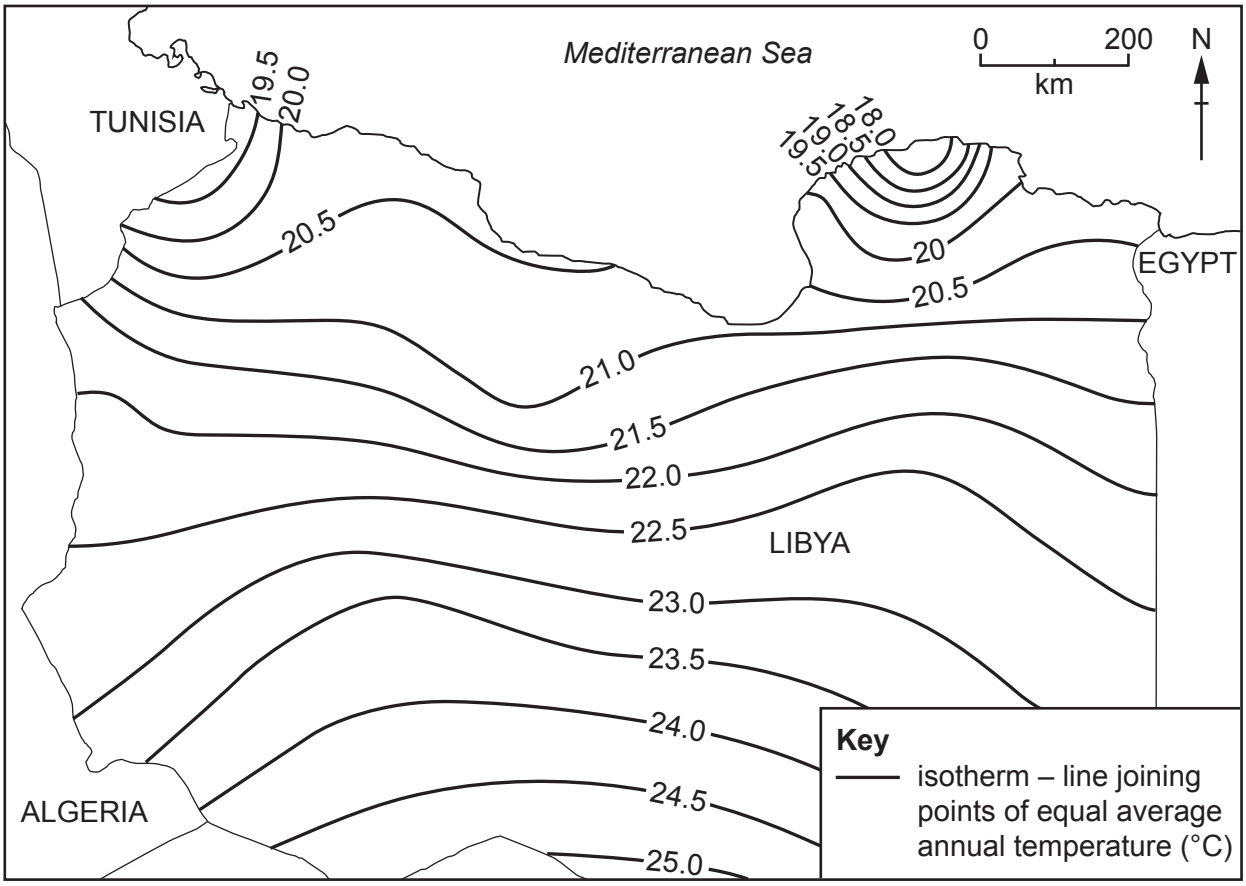

Mediterranean Sea
0
200
km
N
TUNISIA
EGYPT
LIBYA
ALGERIA
19.5
20.0
20.5
21.0
21.5
22.0
22.5
23.0
23.5
24.0
24.5
25.0
18.0
18.5
19.0
19.5
20
20.5
Key
isotherm – line joining points of equal average annual temperature (°C)

Fig. 1.3

(i) **Mark with an X** on Fig. 1.1 the area which is most sparsely populated. [1]

(ii) Libya had a population of 6 777 452 in 2015. The land area is 1 760 000 km^2.
Calculate the population density of Libya.
You should show your calculations in the box below.

..... per km^2

[2]

(iii) Using evidence from Figs. 1.1, 1.2 and 1.3 **only**, suggest how the climate has influenced the distribution of population in Libya.

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..... [3]

(iv) Explain the importance of natural resources (e.g. mineral deposits) and transport as factors influencing population density.

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..... [4]

(b) Study Figs. 1.4, 1.5 and 1.6 (Insert), which are photographs showing areas of different population density.

(i) Identify the photograph which shows:

– a densely populated rural area

Fig. .....

– a sparsely populated rural area

Fig. .....

– a densely populated urban area.

Fig. ..... [3]

(ii) Some rural areas may be overpopulated. Describe the problems faced by people living in overpopulated **rural** areas.

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(c) For a named country you have studied, explain why it has attracted large numbers of international migrants.

Name of country ....

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[Total: 25]

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2 **(a)** Study Fig. 2.1 (Insert), which is a map of Lusaka, the capital city of Zambia (an LEDC in Africa).

(i) Which **one** of the following land uses occupies the largest area in Lusaka? Underline your answer in the list below.

business industry parks residential [1]

(ii) Using Fig. 2.1 **only**, describe the location of Lusaka International Airport.

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..... [2]

(iii) Suggest reasons for the location of the industrial areas in Lusaka.

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..... [3]

(iv) Suggest differences between the housing areas labelled **X** and **Y** in Fig. 2.1.

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(b) Study Fig. 2.2, which shows information about amenities in George, an unplanned residential area in Lusaka.

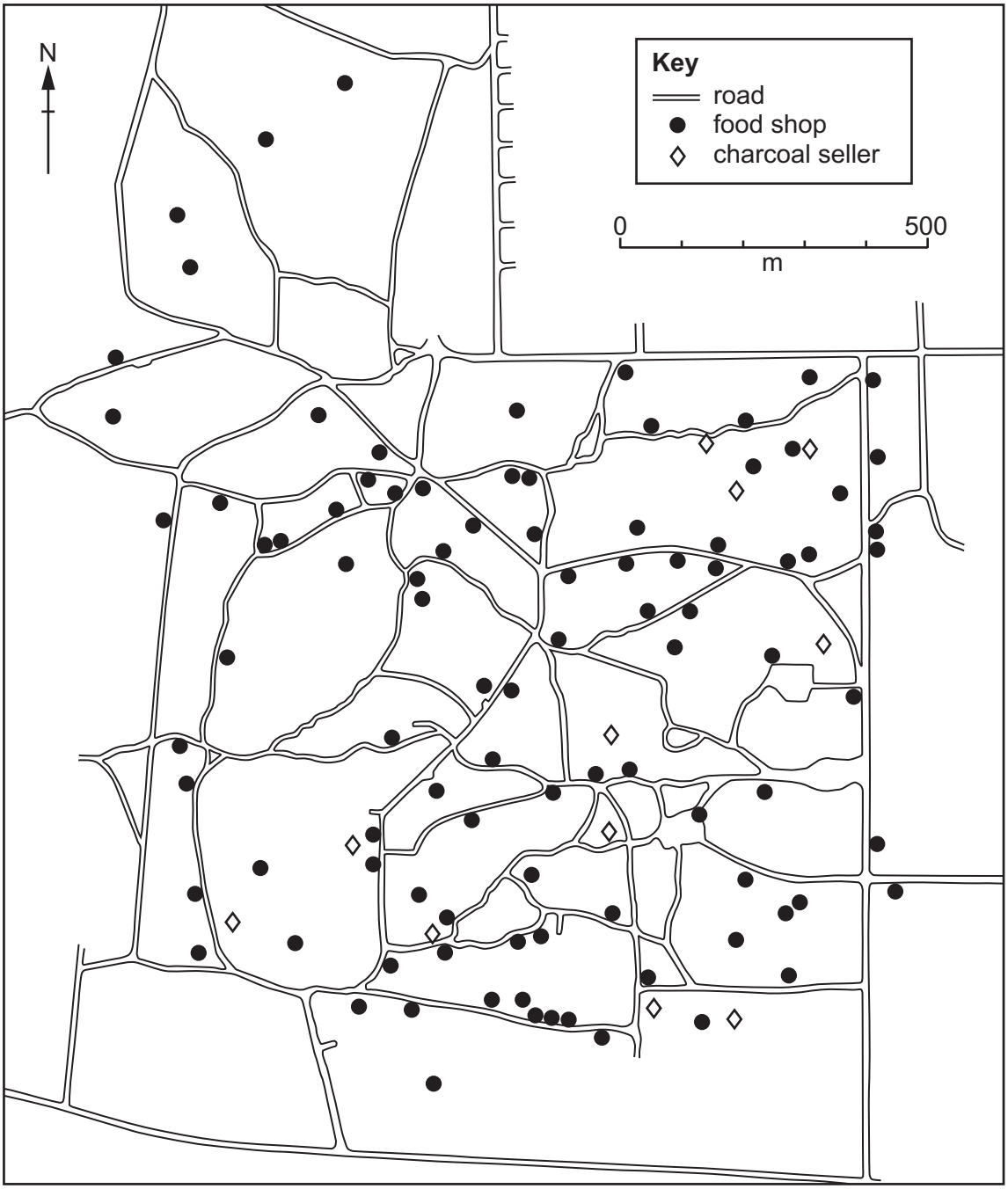


Fig. 2.2

(i) Compare the distribution of food shops and charcoal sellers.

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..... [3]

(ii) Explain why people who live in George are only likely to travel short distances to food shops.

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

Name of urban area .....

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[Total: 25]

TURN PAGE FOR QUESTION 3

Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 3.1 (Insert), which is a photograph showing an area which has been created by coastal erosion.

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

.....

..... [1]

(ii) Which **two** of the following can be seen in Fig. 3.1?
Tick (✓) the correct statements in the table.

	tick (✓)
bays and headlands	
delta	
mangrove swamps	
sand dunes	
wave cut platforms	

[2]

(iii) Explain how the process of corrosion (solution) may have formed the caves shown in Fig. 3.1.

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..... [3]

(iv) State **two** benefits and **two** disadvantages of living close to the coast.

Benefits

1 .....

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2 .....

.....

Disadvantages

1 .....

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2 .....

..... [4]

(b) Study Fig. 3.2 (Insert), which is a map of Orford Ness, a spit.

(i) Using Fig. 3.2 **only**, describe **three** features of Orford Ness.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Suggest how the spit at Orford Ness was formed.

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(c) For a named coastal area you have studied, describe how the impacts of natural hazards are being managed.

Name of area ....

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[Total: 25]

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4 **(a)** Study Fig. 4.1, which is a map of the River Yangtze drainage basin in China.

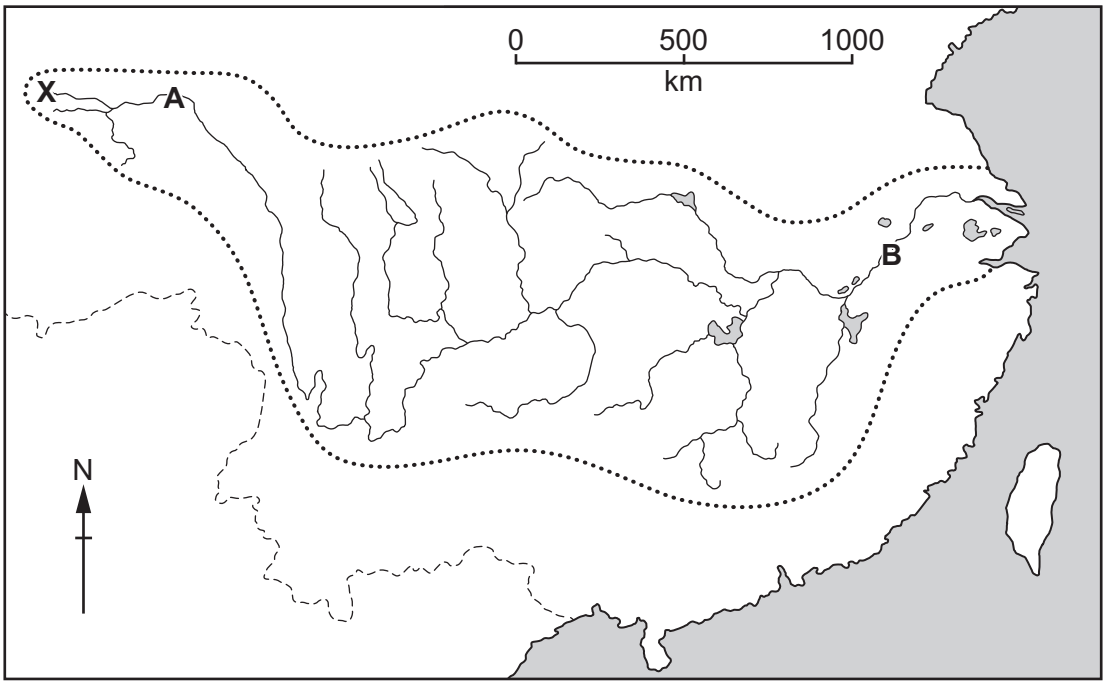


Fig. 4.1

(i) What feature is shown by **X** in Fig. 4.1? Tick (✓) the correct answer in the box below.

	Tick (✓)
delta	
flood plain	
meander	
oxbow lake	
source	

[1]

(ii) On Fig. 4.1 **use arrows and labels** to mark the following features:

– a confluence (label with **C**)

– the watershed (label with **W**). [2]

(iii) Define the following processes by which a river erodes.

abrasion .....

.....

attrition .....

.....

hydraulic action .....

..... [3]

(iv) **Draw and label two** diagrams to show the likely differences between the cross-sections of the valleys at A and B on Fig. 4.1.

Cross-section at A

Cross-section at B

[4]

(b) Study Fig. 4.2 (Insert), which is a photograph of a waterfall.

(i) Describe the main features of the waterfall shown in Fig. 4.2.

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(ii) Explain how and why the waterfall shown in Fig. 4.2 is likely to change in the future.

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(c) For a named river you have studied, explain the causes of flooding.

Name of river ....

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[Total: 25]

Section C

Answer **one** question from this section.

5 **(a)** Study Fig. 5.1, which is information about farming and climate around the villages of Chak Jinda and Jullundur, which are in the Punjab state of India (an LEDC).

Content removed due to copyright restrictions.

Fig. 5.1

(i) There are both commercial and subsistence farms in the Punjab. What is the difference between a commercial farm and a subsistence farm?

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..... [1]

(ii) Using Fig. 5.1, identify a month when farmers in the Punjab will:

– sow cotton .....

– harvest millet. ..... [2]

(iii) Insert the following words into the table below to show examples of inputs, processes and outputs of farms in the Punjab.

Choose from the words below.

harvesting	labour	ploughing
tractors	sugar cane	rice

inputs	processes	outputs

[3]

(iv) Using Fig. 5.1, identify the months when rice and wheat are growing in the Punjab. Suggest reasons for the different months when these crops are growing.

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..... [4]

(b) Study Fig. 5.2 (Insert), which is a photograph showing an area in eSwatini (an LEDC in Africa) where soil erosion has taken place.

(i) Suggest how soil erosion may have affected farming in the area shown in Fig. 5.2.

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(ii) Describe the methods which can be used by farmers to reduce soil erosion.

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(c) For a named country or region you have studied, explain how **human actions** have contributed to food shortages.

Name of country or region ....

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[Total: 25]

6 **(a)** Study Fig. 6.1, which shows information about the causes of desertification.

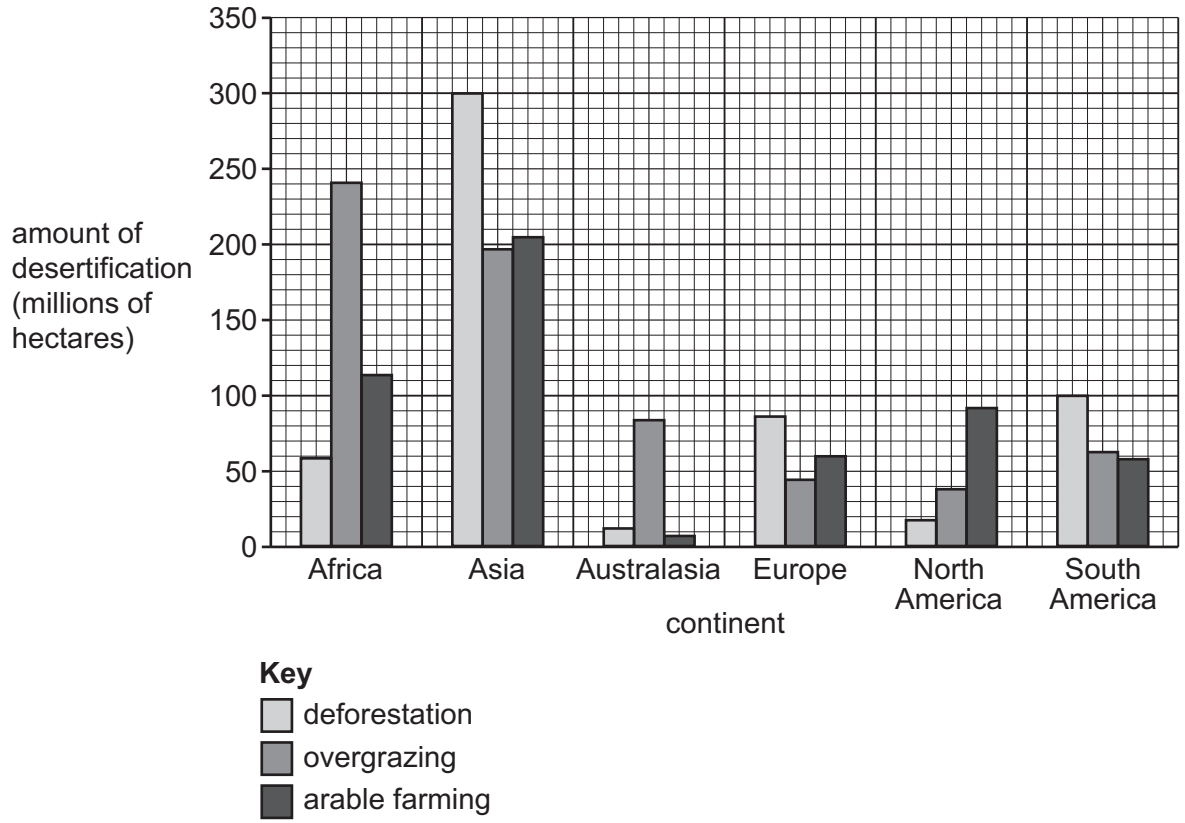


Fig. 6.1

(i) What is meant by *desertification*?

.....

..... [1]

(ii) Identify the continent where:

– most land has been lost to desertification .....

– arable farming has been the main cause of desertification. ..... [2]

(iii) Using Fig. 6.1 **only**, compare the causes of desertification in Africa and Europe.
You should **not** use statistics in your answer.

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(iv) Explain how overgrazing may cause desertification.

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..... [4]

(b) Study Fig. 6.2, which is an article about the world's hottest decade (period of ten years).

2010 to 2019 was the hottest decade on earth, according to recent data which also shows that 2019 was the second-hottest year ever. Nineteen of the hottest twenty years have occurred since 2000.

The annual global surface temperature is now increasing at an average rate of about 0.18 °C per decade and every decade since the 1960s has been warmer than the previous decade.

Greenhouse gas emissions reached a record high in 2019 and the amount of carbon dioxide in the atmosphere is at the highest level ever.

Thirty six countries, from Belize to South Africa, had their hottest year since records began. Many places around the world, including countries such as Switzerland, have had average temperature increases of more than 2 °C over the past century. During December 2019 Australia experienced its hottest-ever day at 41.9 °C and Europe recorded its hottest year ever.

Alaska also had its hottest year on record in 2019 with the ice melting during the winter in the Bering Sea. In the summer the temperature at Alaska's Anchorage International Airport reached over 32 °C for the first time.

Fig. 6.2

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(i) Identify from Fig. 6.2 **three** different pieces of evidence to support the fact that global warming is occurring.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain how human activities are increasing the temperature of the Earth's atmosphere.

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(c) Describe the problems caused by global warming for people and the natural environment. You should refer to named areas affected.

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[Total: 25]

Additional pages

If you use the following pages to complete the answer to any question, the question number must be clearly shown.

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