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## 0460/11

October/November 2011

**1 hour 45 minutes**

Candidates answer on the Question Paper.

Additional Materials: Ruler

## READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.

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.

Write your answer to each question in the space provided.

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.

Answer **three** questions.

The Insert contains Photographs A, B and C for Question 5.

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

The Insert is **not** required by the Examiner.

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

This document consists of **24** printed pages and **1** Insert.

## QUESTION 1

(a) Study Fig. 1, population pyramids for two different countries.



**Fig. 1**

(i) What percentage of the **total** population in Country A is between 0 and 4 years?

.....[1]

(ii) Which country has:

**A** the highest life expectancy, .....

**B** the highest dependency ratio? .....[2]

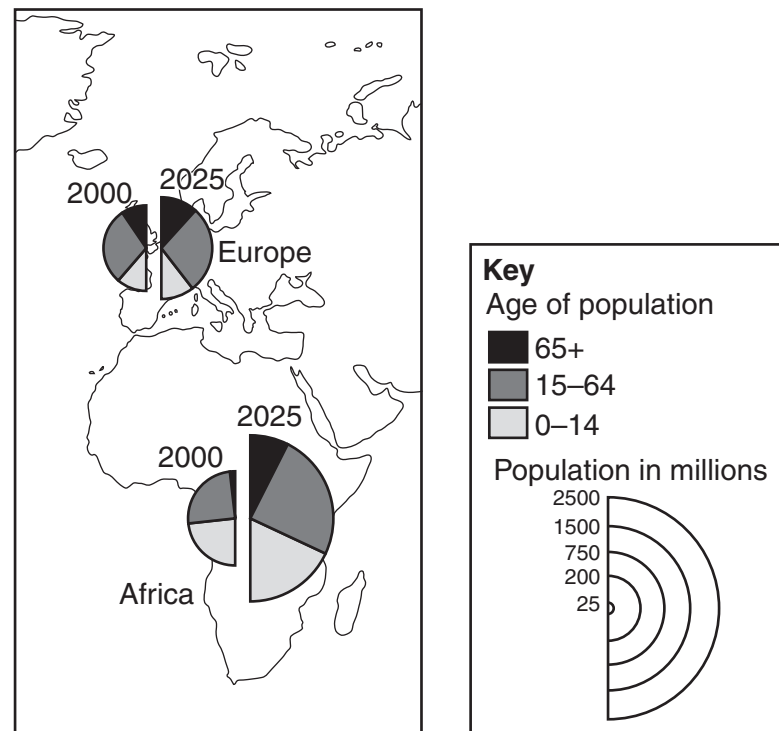
(iii) Describe **three** differences between the shapes of the two pyramids.

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

(iv) Country A is an LEDC. Explain how the population structure of Country A is typical of an LEDC.

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

- (b) Study Fig. 2, which shows information about expected changes in the population of Europe and Africa between 2000 and 2025.



**Fig. 2**

- (i) Compare the sizes and age structures of the population in Africa and Europe in 2000.

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.....[3]

- (ii) Suggest reasons for the expected increase in the percentage of population over the age of 65 by 2025.

[5]

- (c)** For a named country which you have studied, describe the problems caused by an increase in the percentage of people over the age of 65.

Name of country .....

[7]

[Total: 25 marks]

**END OF QUESTION 1**

**QUESTION 2**

**(a)** Study Fig. 3 on page 7, which shows information about population living in urban areas.

**(i)** What is meant by urbanisation?

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

**(ii)** Name:

**A** a country where 75% or more of the population lived in urban areas in the year 2000,

.....

**B** a continent in which there were some countries with less than 45% of the population living in urban areas in the year 2000.

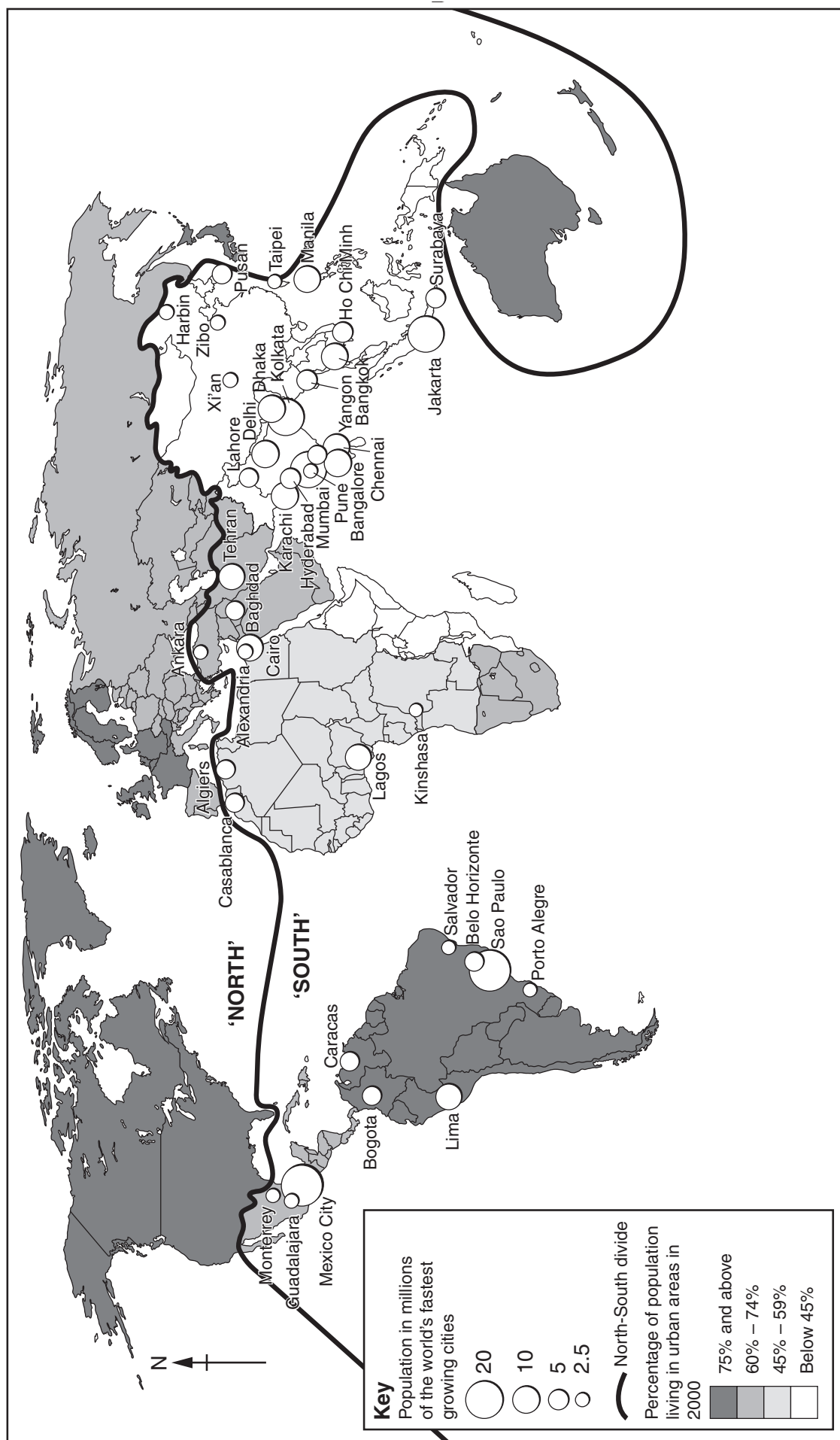
.....[2]

**(iii)** Describe the distribution of the world's fastest growing cities.

.....  
 .....  
 .....  
 .....  
 .....[3]

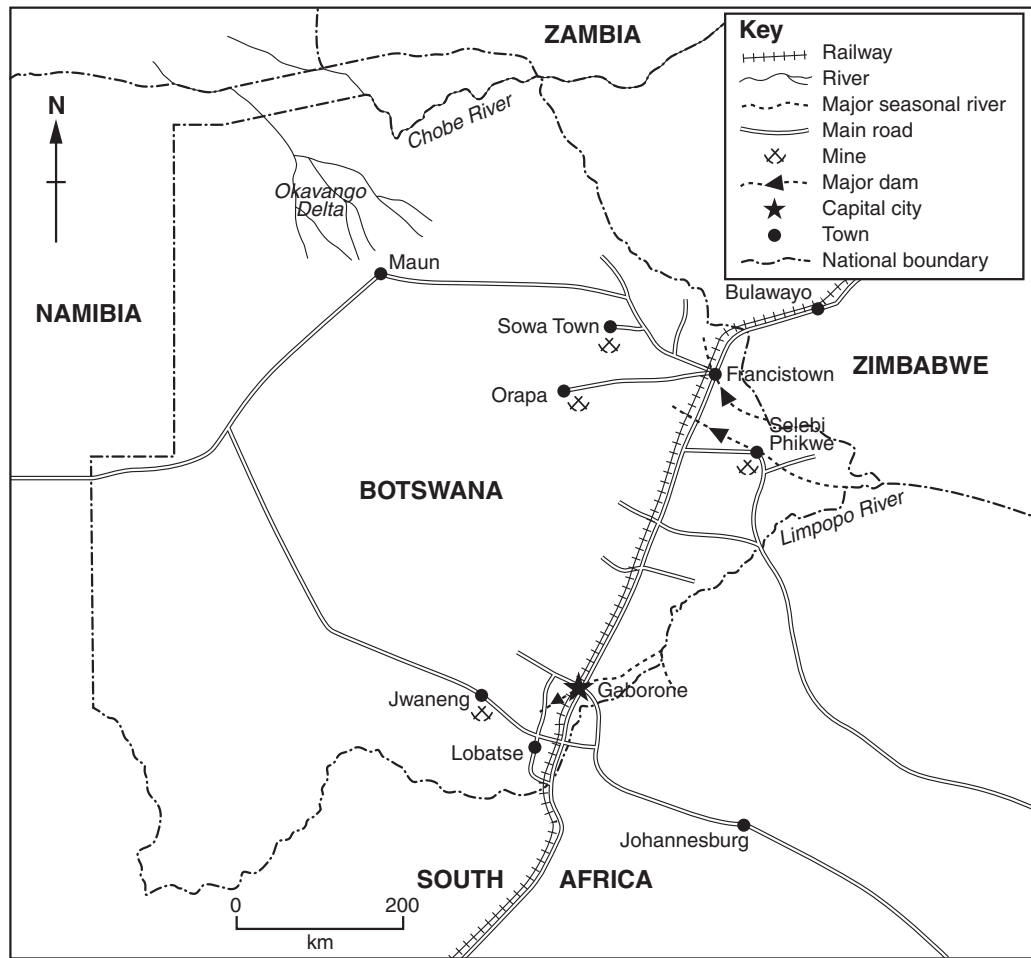
**(iv)** Describe the environmental problems caused by the expansion of towns and cities into the surrounding rural areas.

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



**Fig. 3**

(b) Study Fig. 4, which shows information about Botswana, an LEDC in southern Africa.



**Fig. 4**

(i) Using evidence from Fig. 4 **only**, suggest **three** reasons why many people are moving to towns and cities in Botswana.

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



- (ii) Gaborone, the capital city of Botswana, was founded in 1964 with a planned population of 20 000. It now has a population of over 200 000.

What problems are caused for people who live in such rapidly growing urban areas in LEDCs?

.....[5]

- (c)** For a named town or city which you have studied, describe the location and characteristics of **two** contrasting housing areas.

Name of city or town .....

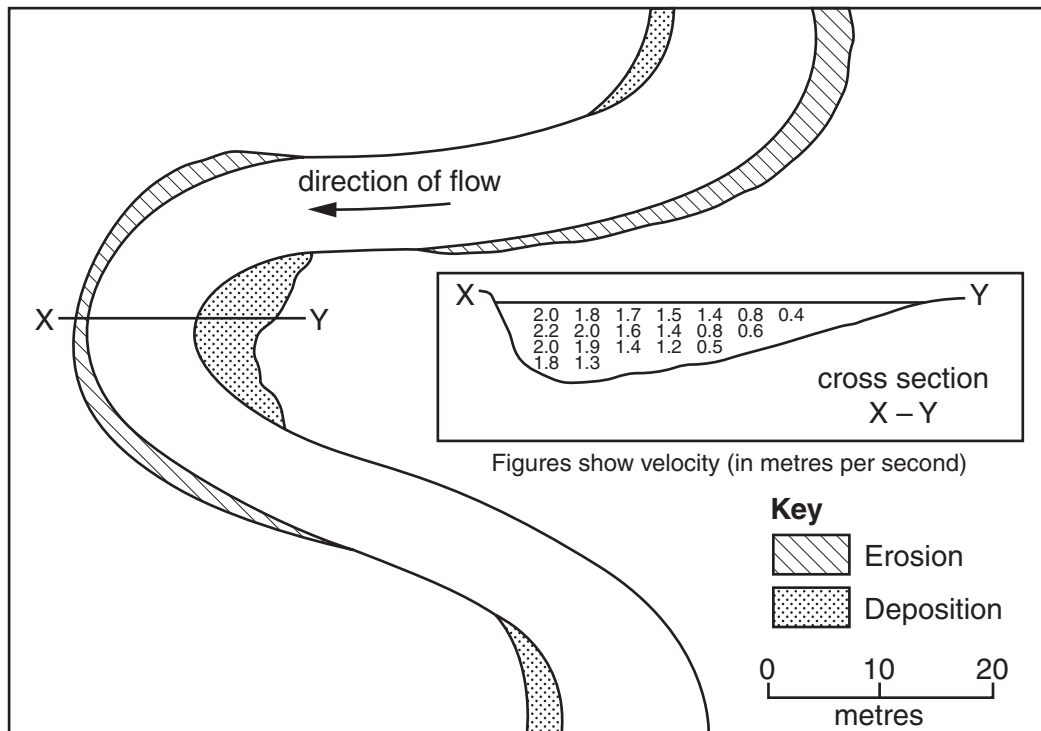
..... [7]

[Total: 25 marks]

**END OF QUESTION 2**

**QUESTION 3**

(a) Study Fig. 5, which shows part of a river.



**Fig. 5**

(i) What river feature is shown by Fig. 5?

.....[1]

(ii) In which areas shown on Fig. 5 are each of the processes of erosion and deposition taking place?

.....

.....[2]

- (iii) Describe how the velocity varies across the river cross section labelled X–Y.

.....

.....

.....

.....

.....[3]

- (iv) Explain why a flood plain and levees may develop in the lower course of a river.

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.....[4]

- (b) Study Fig. 6, an article about the removal of an area of forest in Jakarta, the capital city of Indonesia (an LEDC in Asia).



**Fig. 6**

- (i) Explain why removal of forest to build the airport road is likely to increase the risk of flooding in the area.

.....

.....

.....

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.....

.....

.....[3]

- (ii) Explain why, in many LEDCs, large numbers of people live close to rivers which may flood.

.....[5]

- (c)** For a named river which you have studied, explain what has been done to reduce flooding.

Name of river .....

[7]

[Total: 25 marks]

**END OF QUESTION 3**

# QUESTION 4

(a) Study Fig. 7 on page 15, which shows parts of the world which experience natural disasters.

(i) What is a drought?

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

(ii) Identify **one** similarity and **one** difference between the locations of the areas affected by drought and tropical storms.

Similarity .....  
 .....  
 Difference .....  
 .....[2]

(iii) Describe **three** hazards for people which result from tropical storms.

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

(iv) Explain why earthquakes and volcanic eruptions occur in similar areas.

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

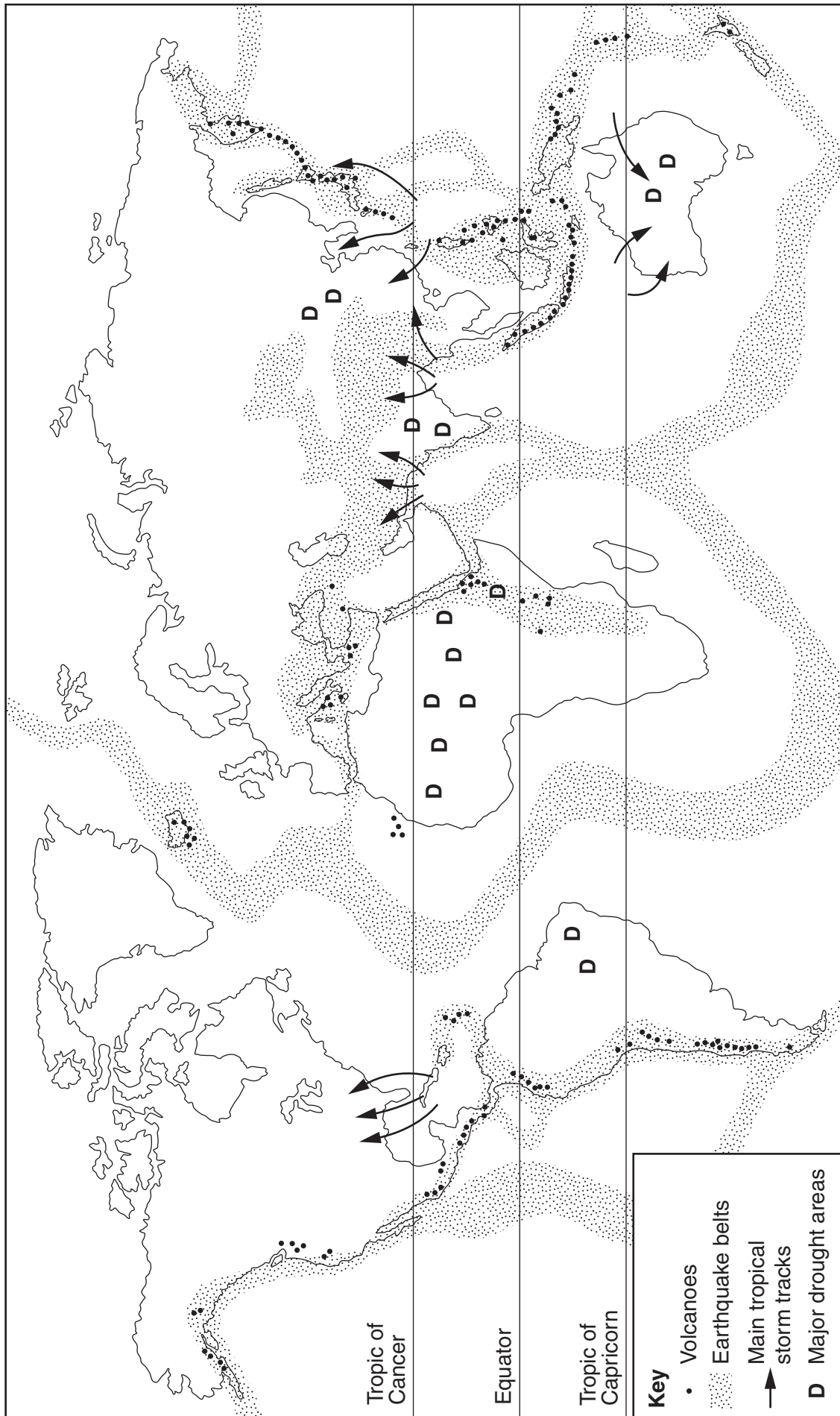


Fig. 7

(b) Study Fig. 8, which shows information about selected earthquakes.

Location	Year	Magnitude measured on Richter scale	Number of deaths
USA	1964	9.2	125
Indonesia	2004	9.0	283 000
China	2008	8.0	87 000
Iran	1990	7.7	50 000
Taiwan	1999	7.7	3 000
Pakistan	2005	7.6	73 000
Turkey	1999	7.6	17 000
USA	1989	7.1	69
Japan	1995	6.9	5 500
USA	1994	6.7	57
Italy	2009	6.3	308
India	1993	6.2	9 500
Afghanistan	2002	6.1	1 000

**Fig. 8**

- (i) Do bigger earthquakes (higher magnitude) cause more deaths? Support your answer with data from Fig. 8.

.....

.....

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.....

.....

.....[3]



- (ii) Suggest reasons for the variation in the number of deaths caused by the earthquakes listed in Fig. 8.

.....[5]

- (c)** Volcanic eruptions are another natural hazard.  
For a named example of a **volcanic eruption** which you have studied, describe its effects.

Name of volcanic eruption .....

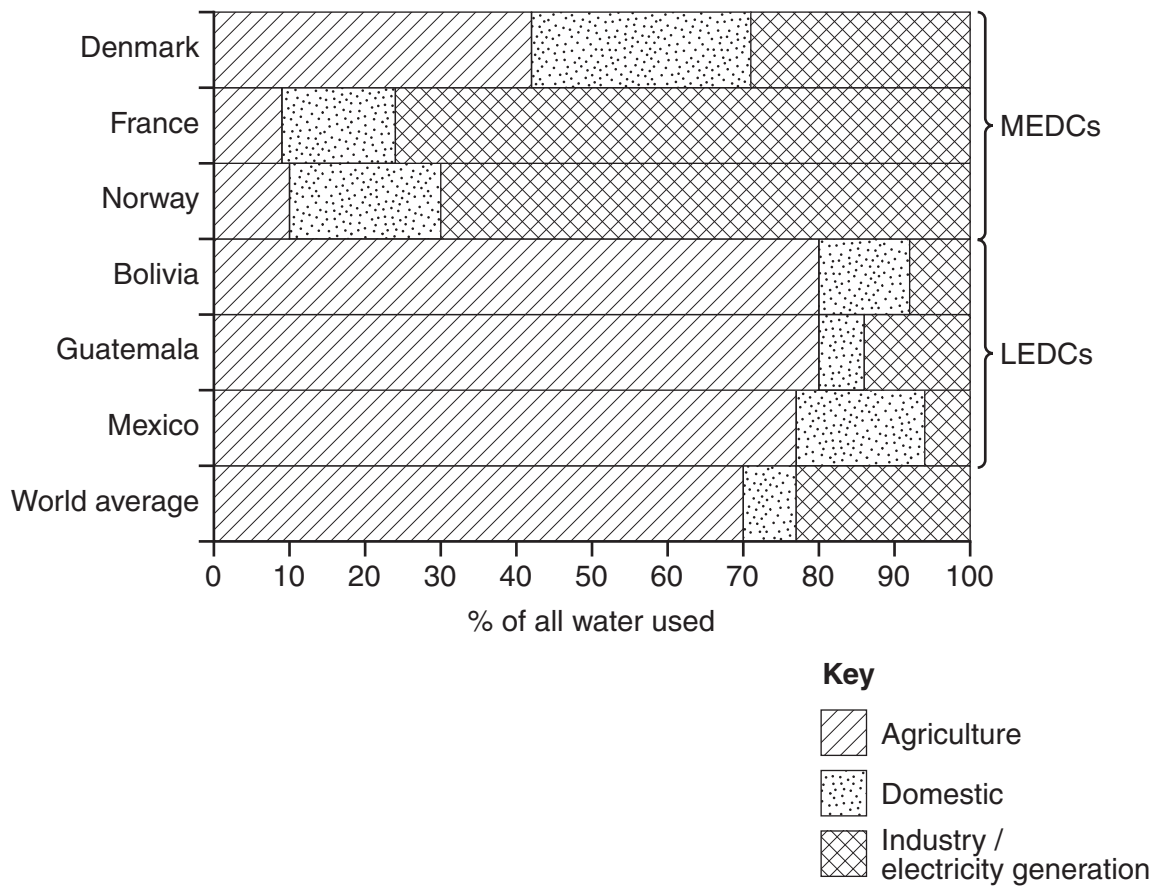
[7]

[Total: 25 marks]

**END OF QUESTION 4**

### QUESTION 5

**(a)** Study Fig. 9, which shows how water is used in different countries.



**Fig. 9**

- (i) What percentage of Bolivia's water is used for agriculture? .....[1]
- (ii) Which of the countries listed on Fig. 9 uses the largest percentage of water for:
  - A domestic use; .....
  - B industry/electricity generation? .....[2]
- (iii) Use the information in Fig. 9 to compare the use of water in MEDCs and LEDCs.

[3]

- (iv) Suggest reasons for the variation in the use of water between countries at different levels of economic development.

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.....

.....[4]

- (b) Study Photographs A, B and C (Insert), which show three possible sources of water pollution.

- (i) State **one** way in which the economic activity shown in each of the photographs might cause water pollution.

Photograph A .....

.....

Photograph B .....

.....

Photograph C .....

.....[3]

- (ii) Describe the impacts of water pollution on people and the natural environment.

.....

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.....[5]

- (c)** Name an area which you have studied which experiences water shortages.  
Explain how the water shortages cause problems for the people who live in your chosen area.

Area studied .....

[7]

[Total: 25 marks]

**END OF QUESTION 5**

## QUESTION 6

- (a) Study Fig. 10, which shows the percentage of people employed in agriculture and the Gross National Product (GNP) per person of selected countries. GNP is a measure of wealth.

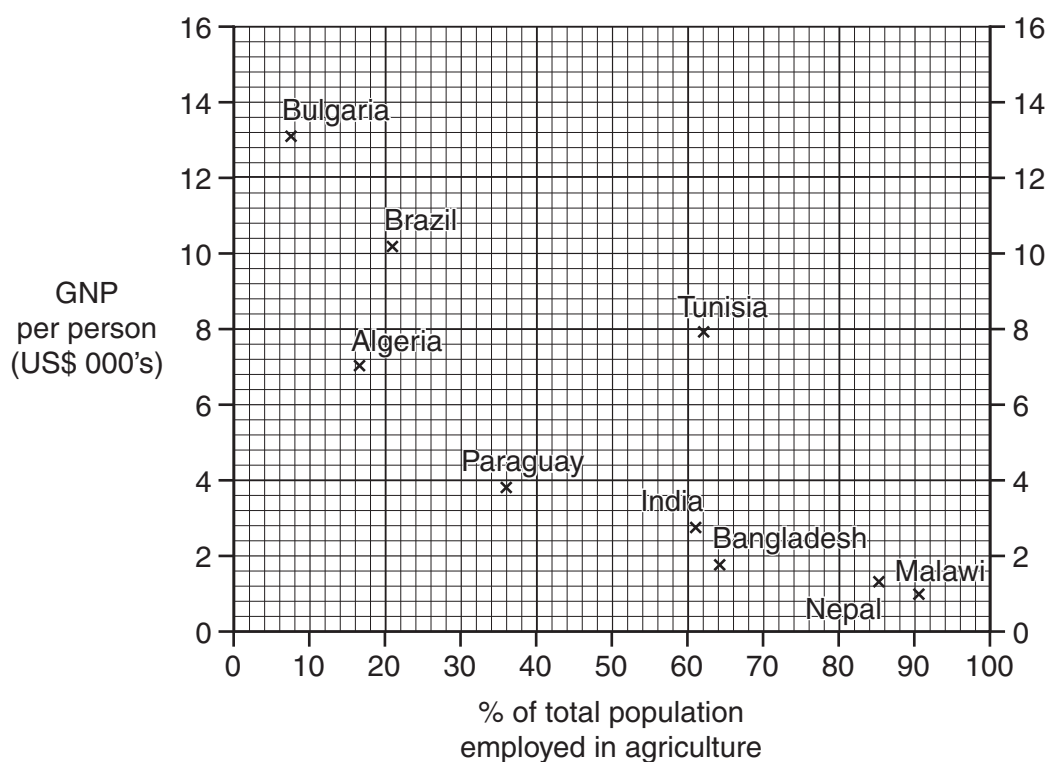


Fig. 10

- (i) State the general relationship between the percentage of people employed in agriculture and the GNP per person.

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

- (ii) Name a country shown on Fig. 10 which does not fit the general relationship which you have stated in (a)(i). Give a reason for your choice.

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

- (iii) Explain why a high percentage of the population of LEDCs work in agriculture.

.....  
 .....  
 .....  
 .....  
 .....  
 .....[3]

- (iv) Explain why many LEDCs suffer from food shortages, even though a large percentage of their population are farmers.

.....

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.....[4]

- (b) Study Fig. 11, which shows information about the sources of energy used in France (an MEDC in Europe) and Kenya (an LEDC in Africa).

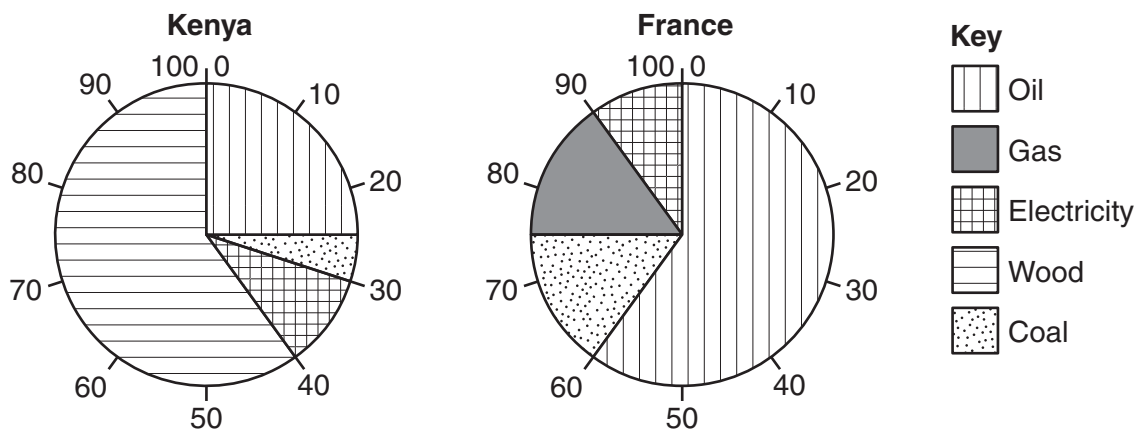


Fig. 11

- (i) Using Fig. 11 **only**, identify **three** differences in energy used between France and Kenya.

1 .....

.....

2 .....

.....

3 .....

.....

.....[3]

- (ii) Suggest reasons why the importance of different sources of energy varies from country to country.

[5]

- (c)** The use of energy may increase global warming.  
Describe the likely impacts of global warming on named areas which you have studied.  
You should refer to the impacts on people and the natural environment.

Areas studied .....

.....[7]

[Total: 25 marks]

**END OF QUESTION 6**

This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Question 2 Fig. 3  
Question 5 Photographs A–C

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