



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

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GEOGRAPHY

0460/11

Paper 1

October/November 2009

1 hour 45 minutes

Additional Materials: Answer Booklet/Paper

READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

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.

Answer **three** questions.

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

The Insert contains Photographs A and B for Question 2 and Photographs C, D and E for Question 5.

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 **11** printed pages, **1** blank page and **1** Insert.



- 1 (a) Study Fig. 1, which shows information about the population of Russia between 1980 and 2005.

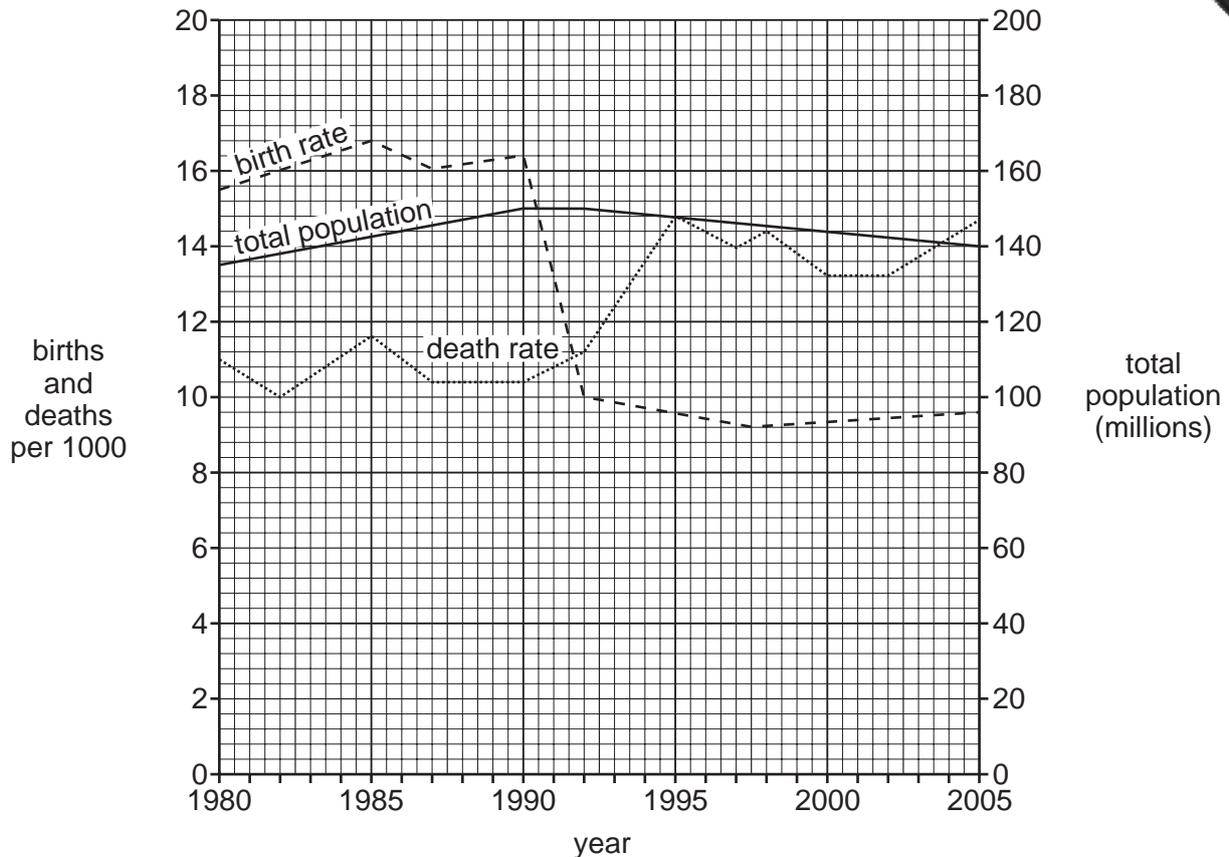


Fig. 1

- (i) What was the total population of Russia in 1980? [1]
- (ii) Calculate the natural population growth rate of Russia in 1980. You must show your calculations. [2]
- (iii) Use evidence from the birth and death rates shown in Fig. 1 to explain why the total population of Russia:
- A** increased between 1980 and 1990;
- B** declined between 2000 and 2005;
- C** did not change much in 1991 and 1992. [3]
- (iv) In 2005 Russia's population was 140 million. By 2050 it could fall as low as 77 million. The average life expectancy has dropped to 59 years. Explain why in some countries there is a decline in life expectancy. [4]

(b) Study Fig. 2, which shows a newspaper extract published in 2007.

President Putin promises cash for more babies

MOSCOW — Russian President Vladimir Putin offered women cash to have more babies yesterday as he tackled a decline in population that is leaving much of the country deserted and threatening to slow economic growth.

Putin said each year Russia's population fell by about 700,000.

He proposed new financial incentives to increase the birth rate.

His measures were similar to those used in the past. Women with large families had the title "Hero Mother" and were given medals and expensive gifts.

Putin proposed more than doubling monthly payouts to families for their first baby

to 1,500 roubles (US\$55) — over half the average wage.

Many Russian parents choose to have only one child. But if they have a second child the parents will be given 3,000 roubles a month.

And he said the state should pay women who give up work to have a child not less than 40% of what they used to earn.

Fig. 2

- (i) Identify **three** incentives offered in Russia to increase the birth rate. [3]
- (ii) Describe the problems which could be caused in a country by under-population. [5]
- (c) The size of the population in a country may change as a result of natural increase and international migration.

For a country which you have studied, explain why the rate of population growth is high. [7]

[Total: 25 marks]

- 2 (a) Study Photographs A and B (Insert), which show the urban settlement of Nice, in the MEDC). Also study Fig. 3, which shows its location.



Fig. 3

- (i) What is meant by *urban settlement*? [1]
- (ii) Describe the location of Nice. [2]
- (iii) Suggest **three** likely functions of this settlement. [3]
- (iv) Select **one** of the functions which you have given in (iii). Suggest why this function has developed at this settlement. [4]

(b) Study Fig. 4, which shows a rural area.

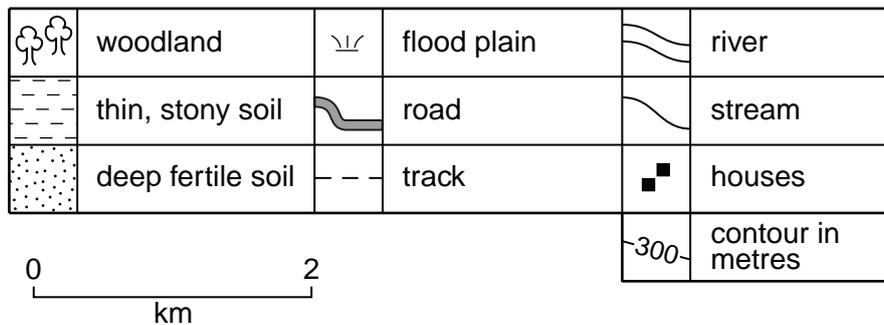
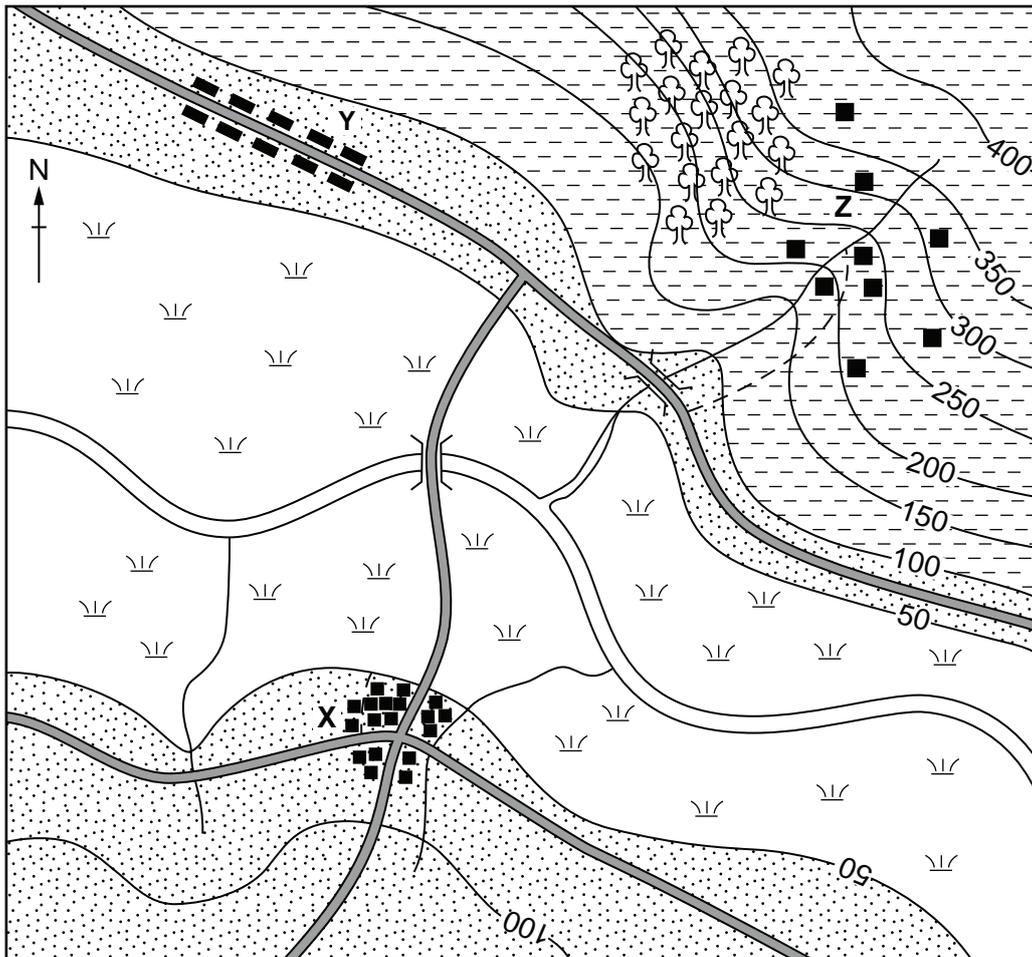
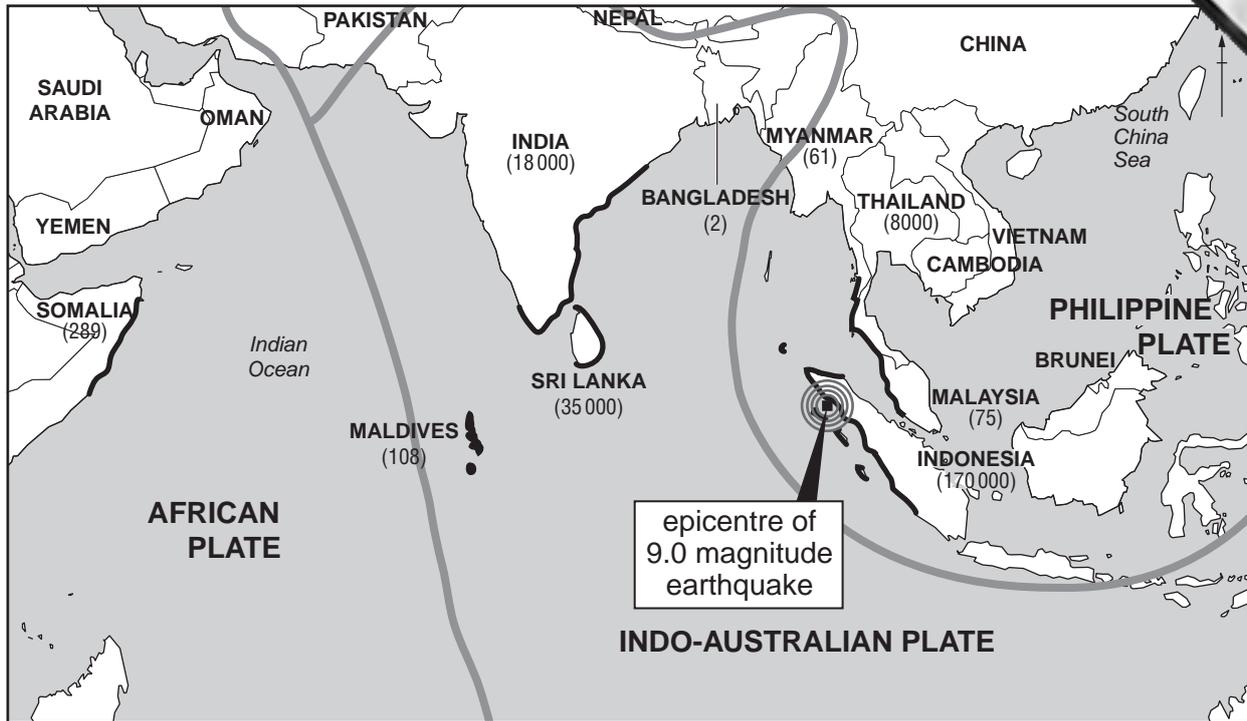


Fig. 4

- (i) Identify the types of rural settlement labelled X, Y and Z. [3]
- (ii) Suggest reasons why settlement X developed at that site. [5]
- (c) Name an example of a rural area in an LEDC from which many people have migrated. Explain why many people have migrated from this area. [7]

[Total: 25 marks]

- 3 (a) Study Fig. 5, which shows information about an earthquake in 2004.



Key

-  coastline severely hit by tsunamis
-  plate boundary
- (61) number of deaths

Fig. 5

- (i) Which country was nearest to the epicentre of the earthquake? [1]
- (ii) The earthquake caused a tsunami which caused many deaths. Use map evidence only to suggest why:
- A** there were more deaths in Sri Lanka than India;
- B** there were more deaths in India than Malaysia. [2]
- (iii) Explain why earthquakes occur on or close to plate boundaries. [3]

(b) Study Fig. 6, a scatter graph which shows information about selected earthquakes.

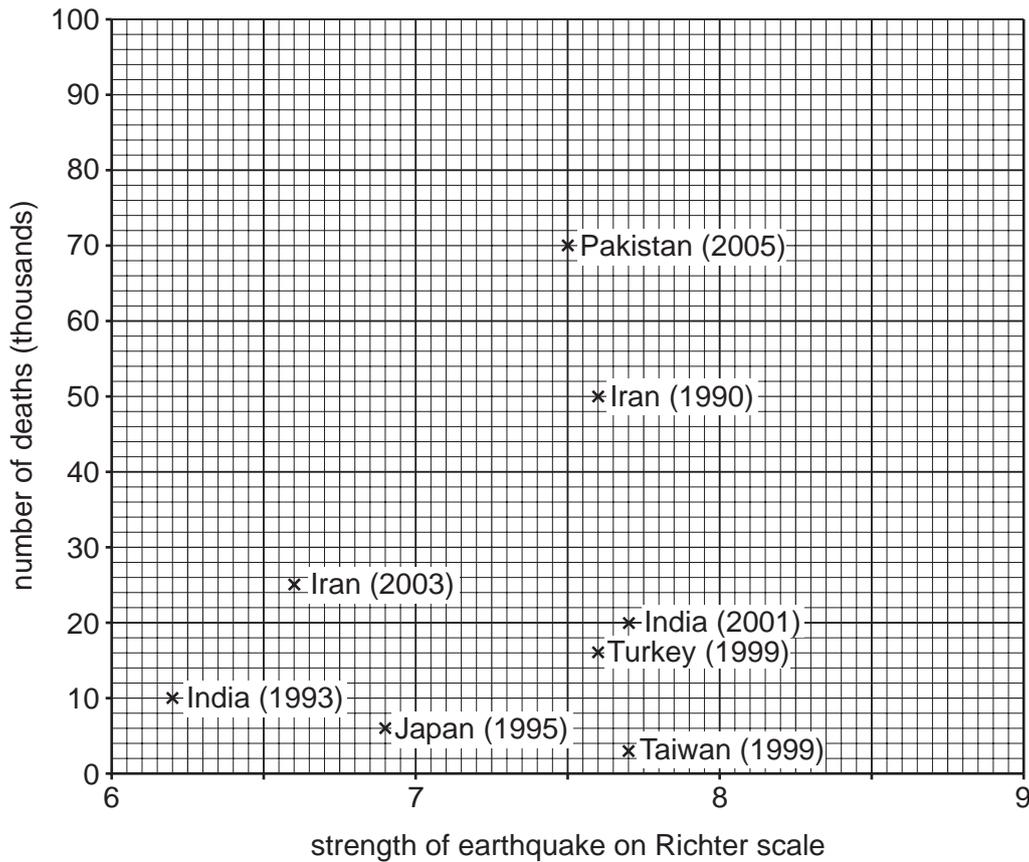


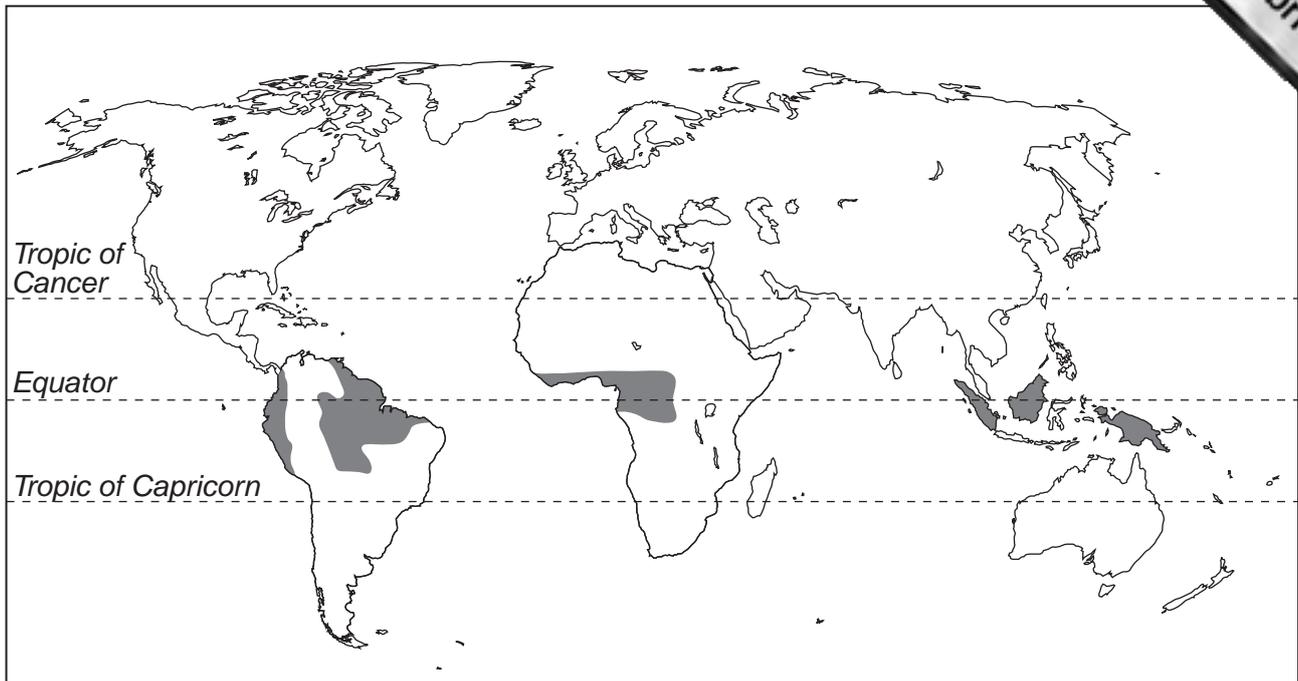
Fig. 6

- (i) What conclusion can be drawn from Fig. 6 about the relationship between the strength of earthquakes and the number of deaths they caused? Support your answer with figures. [3]
- (ii) Explain why earthquakes of the same strength may cause different numbers of deaths. [4]
- (iii) Describe the other short-term and long-term effects of earthquakes. [5]
- (c) Many people live in areas where earthquakes are likely to occur.

Explain why people still live in a named area which you have studied which experiences earthquakes. [7]

[Total: 25 marks]

- 4 (a) Study Fig. 7, which shows the location of areas with a tropical rain forest ecosystem.



Key

■ tropical rain forest ecosystem

Fig. 7

- (i) What is meant by the term *ecosystem*? [1]
- (ii) Describe the distribution of areas with a tropical rain forest ecosystem. [2]
- (iii) Explain why areas of tropical rain forest have a high annual precipitation. [3]
- (iv) Explain the effects of climate on the natural vegetation in tropical rain forests. [4]

(b) Study Fig. 8, which shows deforestation of an area of tropical rain forest.

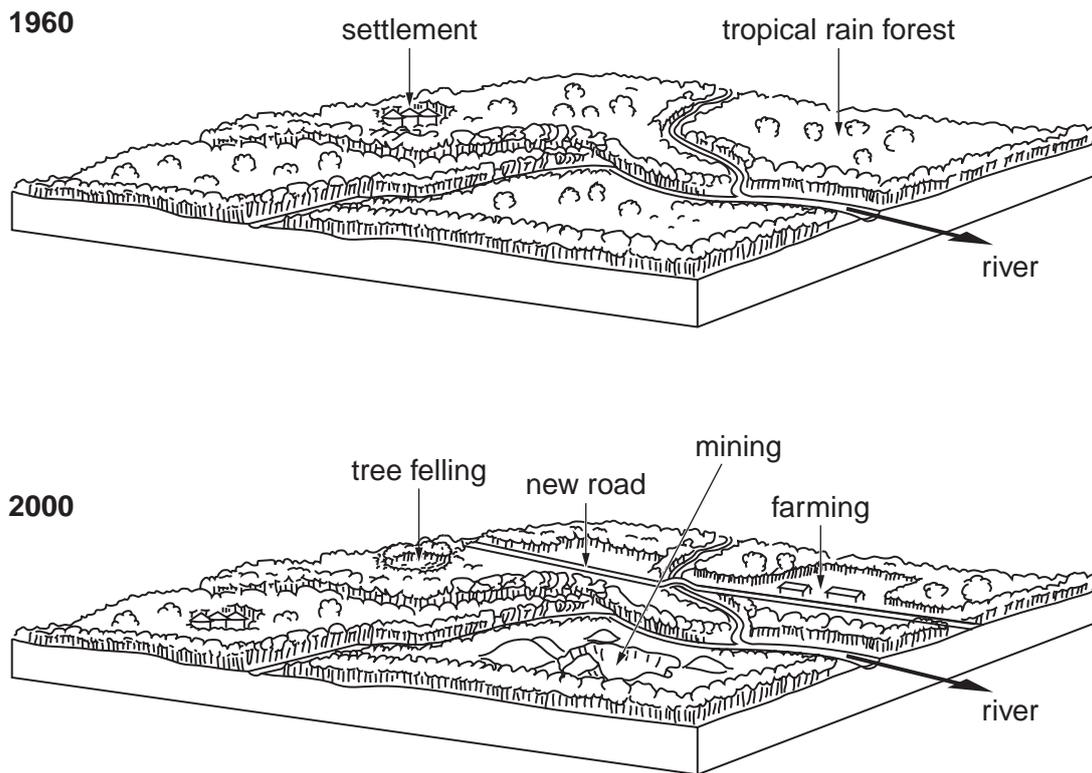


Fig. 8

Describe and explain the likely effects of deforestation on:

- (i) food chains; [3]
- (ii) rivers. [5]

(c) Name an area of **tropical desert** which you have studied. [7]
Describe and explain the main features of its climate.

[Total: 25 marks]

- 5 (a) Study Photographs C, D and E (Insert), which show three methods of generating energy.
- (i) What is meant by *renewable energy*?
 - (ii) Give **two** advantages of using renewable forms of energy to generate electricity. [2]
 - (iii) Write down the following types of energy as a list and identify in which of Photographs C, D and E each is being generated:
 - hydro-electric power (HEP)
 - solar power
 - wind power [3]
 - (iv) Suggest reasons why renewable energy only provides 10% of the world's energy. [4]
- (b) Study Fig. 9, which is from an article about energy in LEDCs.

The energy problems of LEDCs are serious and widespread. Lack of access to sufficient and sustainable supplies of energy affects over 90% of the population of many LEDCs. Two billion people are without electricity and a similar number remain dependent on fuels such as animal dung, wood, and charcoal to cook their daily meals.

Fig. 9

- (i) Explain why many people in LEDCs use animal dung, wood, and charcoal rather than electricity. [3]
 - (ii) Describe the problems which burning animal dung, wood, and charcoal cause for people and the local natural environment in LEDCs. [5]
- (c) For any **one** type of power station, describe and explain the factors which influence its location.
You should refer to an example which you have studied. [7]

[Total: 25 marks]

- 6 (a) Study Fig. 10, which shows the main sources of the world's carbon dioxide emissions.

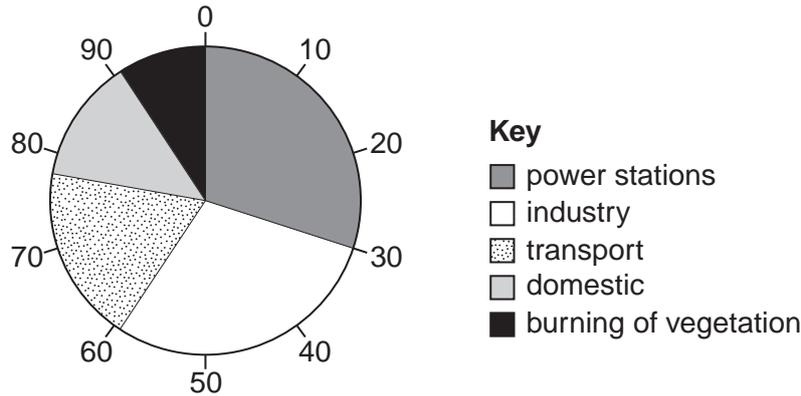


Fig. 10

- (i) Identify a human activity which produces over 25% of the world's emissions of carbon dioxide. [1]
- (ii) Give examples of **two** different types of transport which give off carbon dioxide. [2]
- (iii) Suggest **three** reasons why levels of greenhouse gases such as carbon dioxide are increasing. [3]
- (iv) Explain how greenhouse gases, such as carbon dioxide, are causing global warming. You may include a diagram in your answer. [4]
- (b) Study Fig. 11, which shows emissions of greenhouse gases from different parts of the world in the year 2000. Areas are drawn in proportion to carbon dioxide emissions.

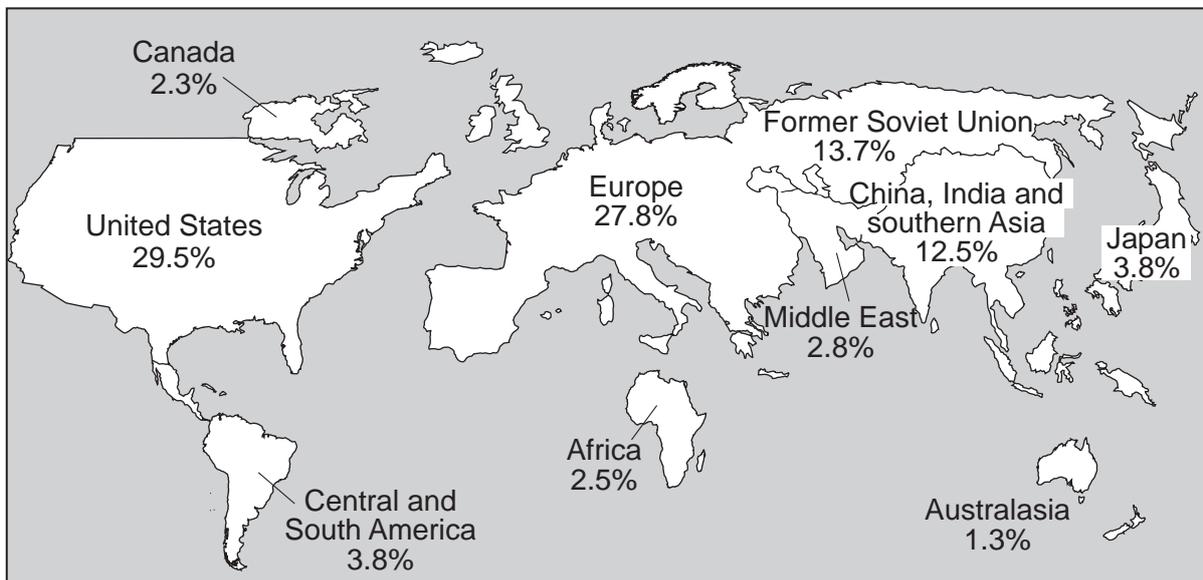


Fig. 11

- (i) Some people suggest that MEDCs are more responsible for global warming than LEDCs. Do you agree? Give reasons for your answer. [3]
- (ii) Explain why it is difficult to reduce global emissions of carbon dioxide. [5]
- (c) Describe the likely effects of global warming on people and the natural environment. You should refer to named areas. [7]

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Question 2 Photograph A S. Sibley; © UCLES
Question 2 Photograph B S. Sibley; © UCLES
Question 5 Photograph C © www.rainorshinepower.com
Question 5 Photograph D S. Sibley; © UCLES
Question 5 Photograph E S. Sibley; © UCLES
Question 5 Fig. 9 © D. F. Barnes, W. M. Floor, *Rural Energy in Developing Countries. A Challenge for Economic Development. Annual Review of Energy and the Environment*; November 1996.

Question 6 Fig. 11 © World Resources Institute, www.images.wri.org/map_cartogram_global.warming-large.gif.

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