

CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

GEOGRAPHY

0460/02

Paper 2

October/November 2003

Additional Materials: Answer Booklet/Paper

1 hour 45 minutes

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 on both sides of the paper.
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 any **three** questions.

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.

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

The insert contains Photograph A for Question 2 and Fig. 8 for Question 6.

This document consists of **10** printed pages, **2** blank pages and an insert.



1 Fig. 1 is used to show how the population of a country may change over time.

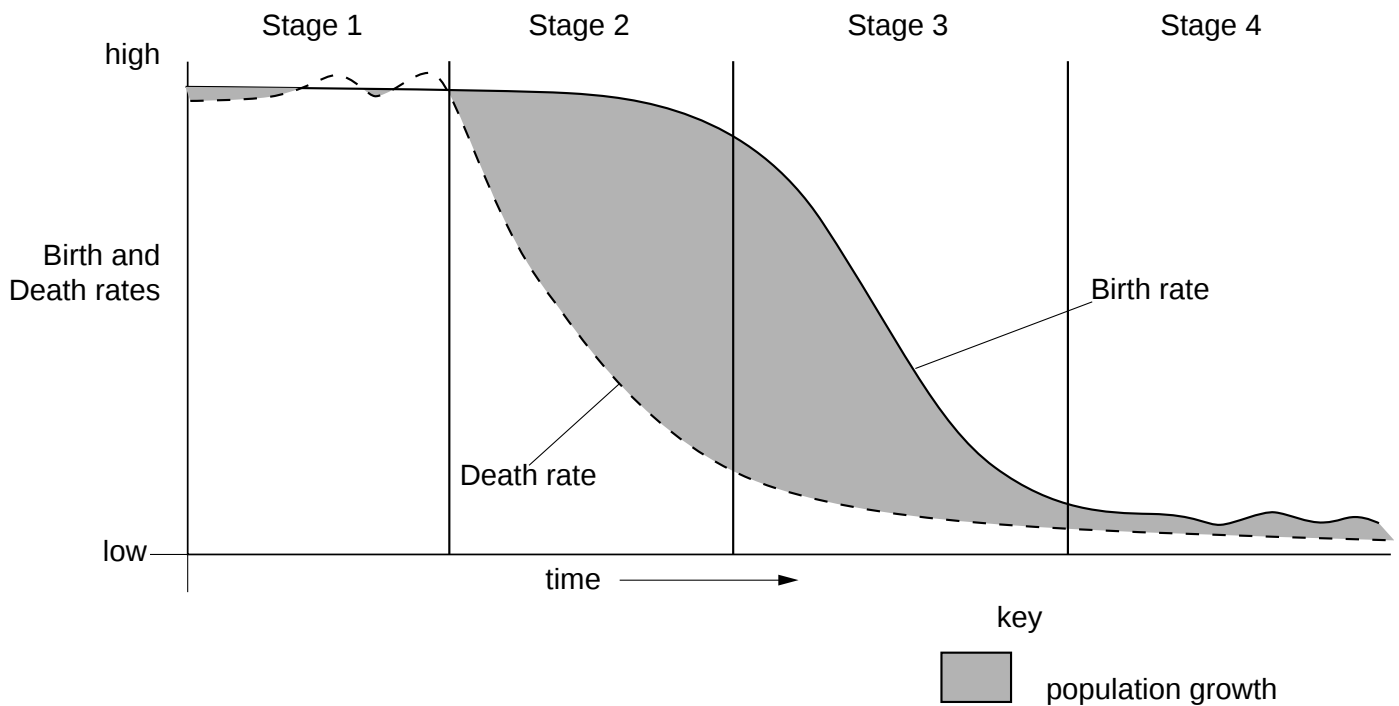


Fig. 1
Stages of population change through time

- (a) (i) Describe the shapes of the birth rate curve and the death rate curve. [2,2]
 (ii) Suggest reasons for the changes shown as each curve passes through Stages 2 and 3. [2,2]
 (iii) State what happens to the total population of a country as it moves through Stage 3 and Stage 4, giving reasons for your answer. [3]
- (b) Explain why
 (i) governments of developing countries often find it difficult to lower their birth rates, [6]
 (ii) problems may result when developed countries show only limited population growth or population decline in Stage 4 of Fig. 1, [5]
 (iii) some developing countries may not pass through all four of the stages shown in Fig. 1. [3]

- 2 (a) Fig. 2 shows data about the urban population in developed and developing regions of the world in 1970 and in 1994.

Region	Urban population (millions)		Urban share (percentage)	
	1970	1994	1970	1994
<i>developed regions</i>	677	868	68	75
Australia-New Zealand	13	18	85	85
Europe	423	532	64	73
Japan	74	97	71	78
North America	167	221	74	76
<i>developing regions</i>	676	1653	25	37
Africa	84	240	23	33
Asia ^a	428	1062	21	32
Latin America	163	349	57	74
Oceania ^b	1	2	18	24

Notes: a. excluding Japan, b. excluding Australia and New Zealand. Source: United Nations, 1995.

Fig. 2

Describe the main trends shown by the data from 1970 to 1994.

[6]

- (b) A result of the rapid urbanisation in developing countries is the growth of large squatter settlements in major cities.

Photograph A (Insert) shows part of a squatter settlement on the edge of a major city in a developing country.

- (i) What does Photograph A show about the layout and appearance of a squatter settlement? [6]
- (ii) What factors encourage squatter settlements to grow rapidly? [6]
- (iii) Why does the growth of squatter settlements often result in problems for both the squatters and the area around the squatter settlement? [7]

3 (a) Study Figs 3A (below) and 3B (opposite).

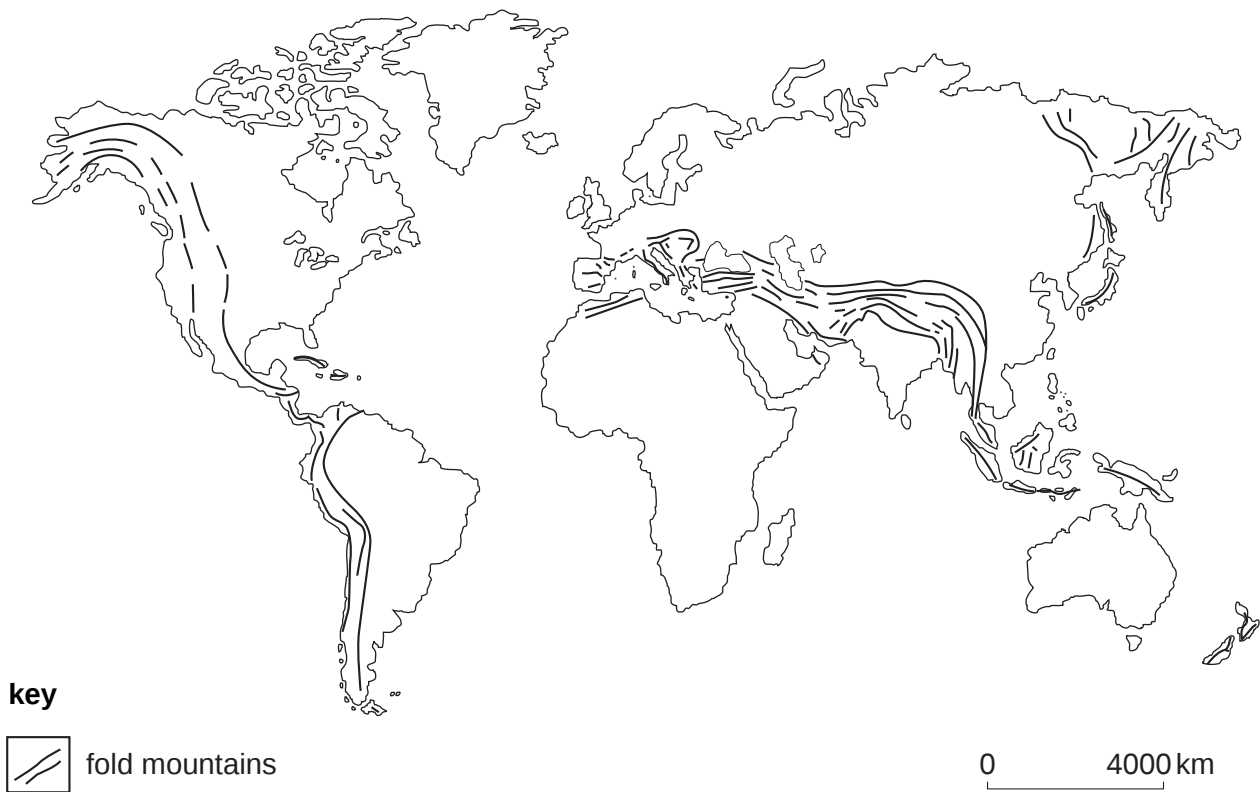
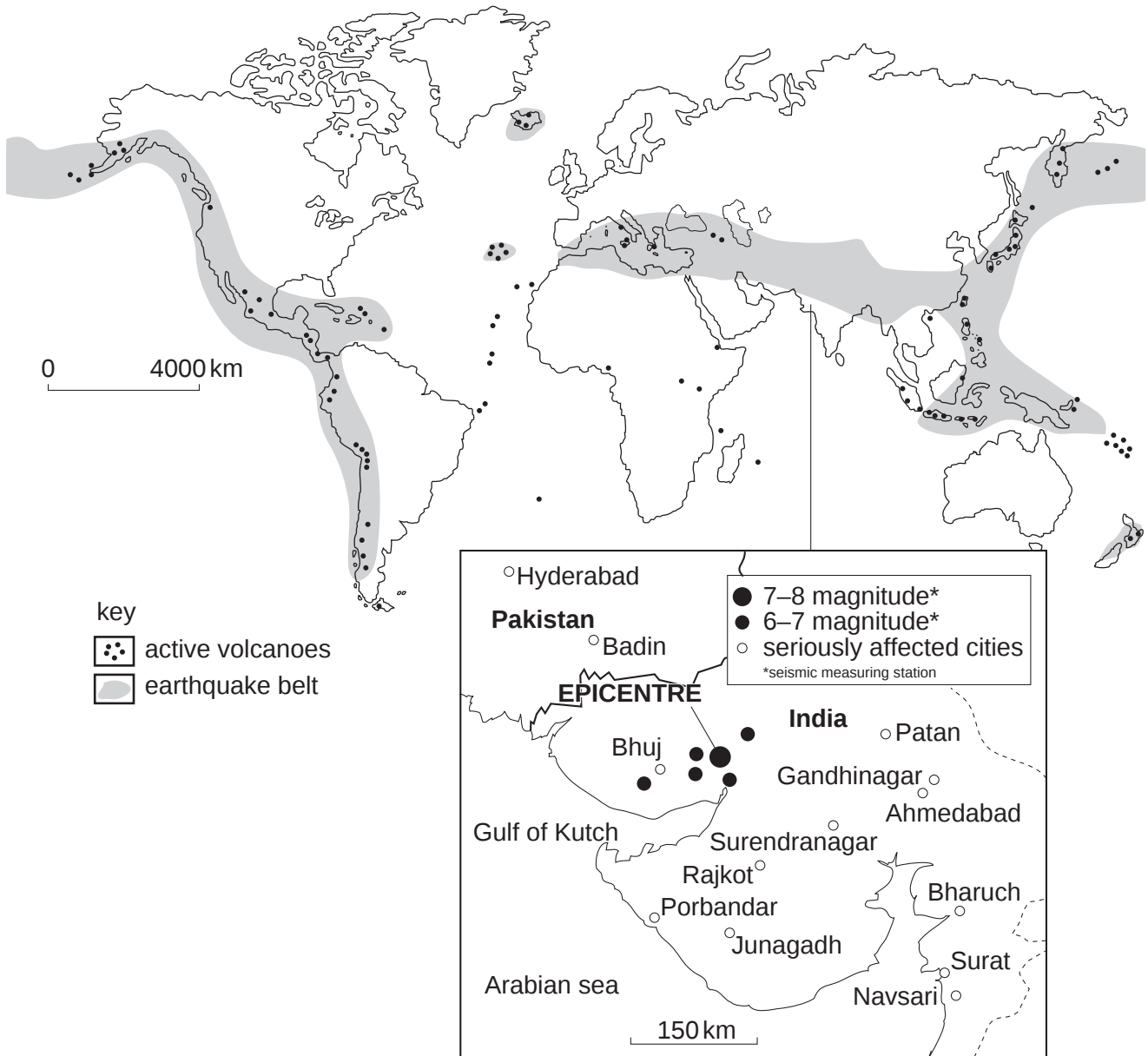


Fig. 3A

- (i) Describe the general distribution of fold mountains, earthquakes and volcanoes shown. [3]
- (ii) Briefly explain this distribution. [3]
- (b) Explain each of (i), (ii), (iii) and (iv) below:
- (i) how are fold mountains formed? [5]
- (ii) why are some earthquakes, such as the one which affected Gujarat in India in 2001, more severe than others? [4]
note: information on the Gujarat earthquake is given on Fig. 3B.
- (iii) how may different types of lava give rise to different shaped volcanic cones? [3]
- (iv) why may volcanic areas offer opportunities as well as problems for people living there? [7]



4 (a) State **four** main factors which determine the climate of a place. [4]

(b) Fig. 4 shows the location of some of the world's tropical deserts.

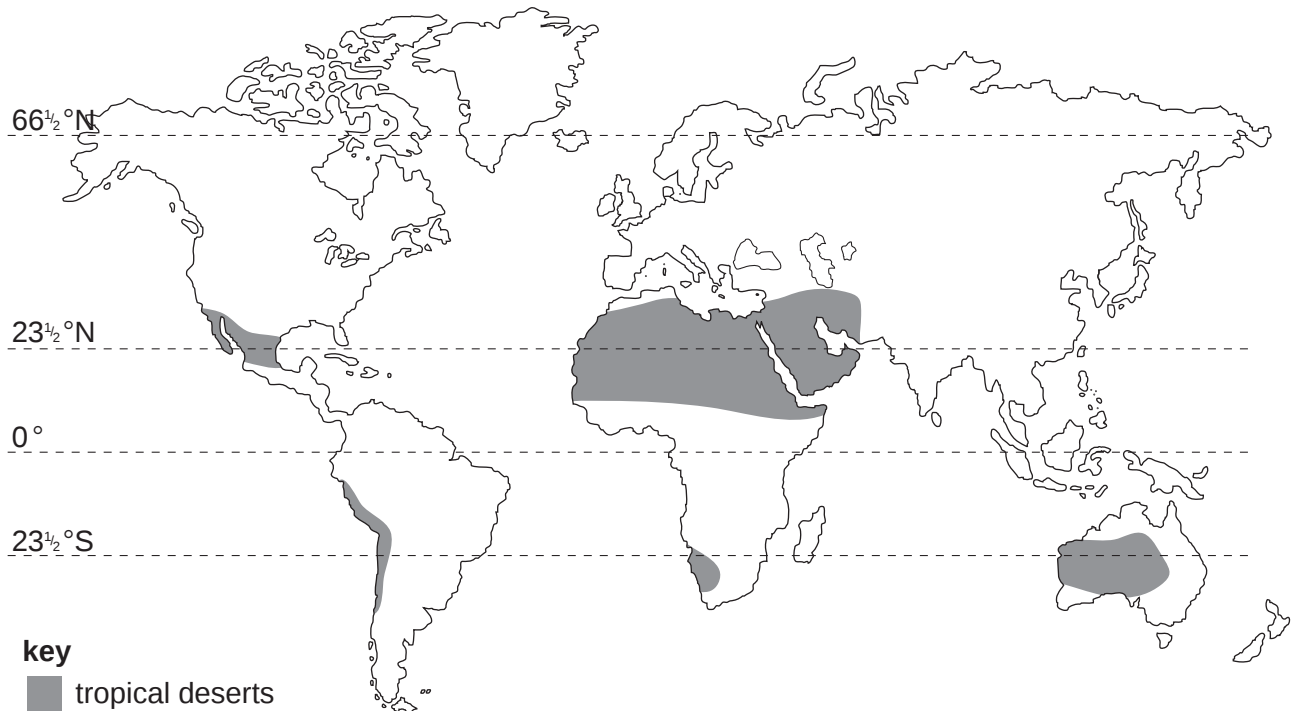


Fig. 4
Distribution of the world's tropical deserts

(i) What is a tropical desert? [2]

(ii) How do **two** of the factors you outlined in (a) influence the distribution of the tropical deserts shown in Fig. 4? [4]

- (c) (i) Explain the meaning of *wind abrasion* and *wind deflation*. [2,2]
- (ii) Describe the part played by
- A** wind abrasion in the formation of rock pedestals/mushroom rocks,
- B** wind deflation in the formation of an oasis. [3,3]
- (iii) Fig. 5 shows a large rock on the surface of a tropical desert which is being weathered by a process of physical (mechanical) weathering.

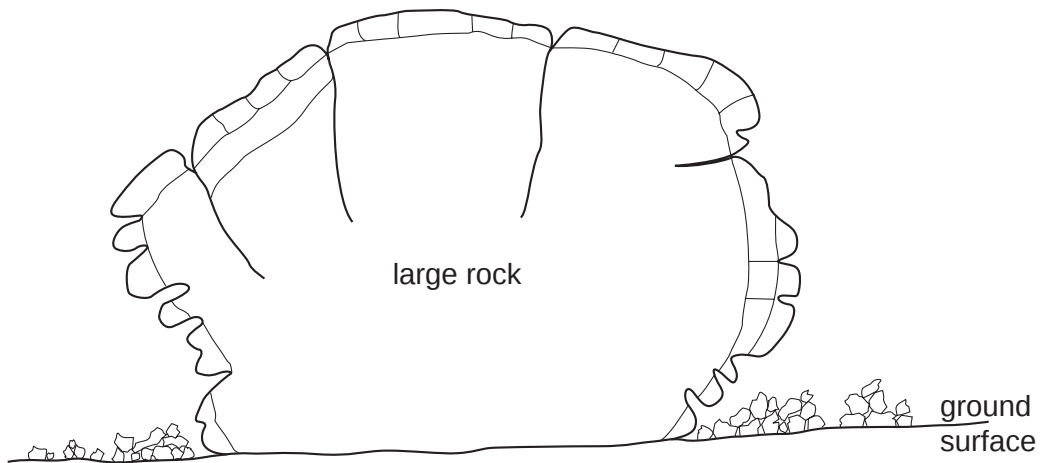


Fig. 5

Describe how the rock is being weathered and the results of the weathering. [5]

- 5 (a) Fig. 6 gives details of a system of small-scale subsistence farming, growing rice.

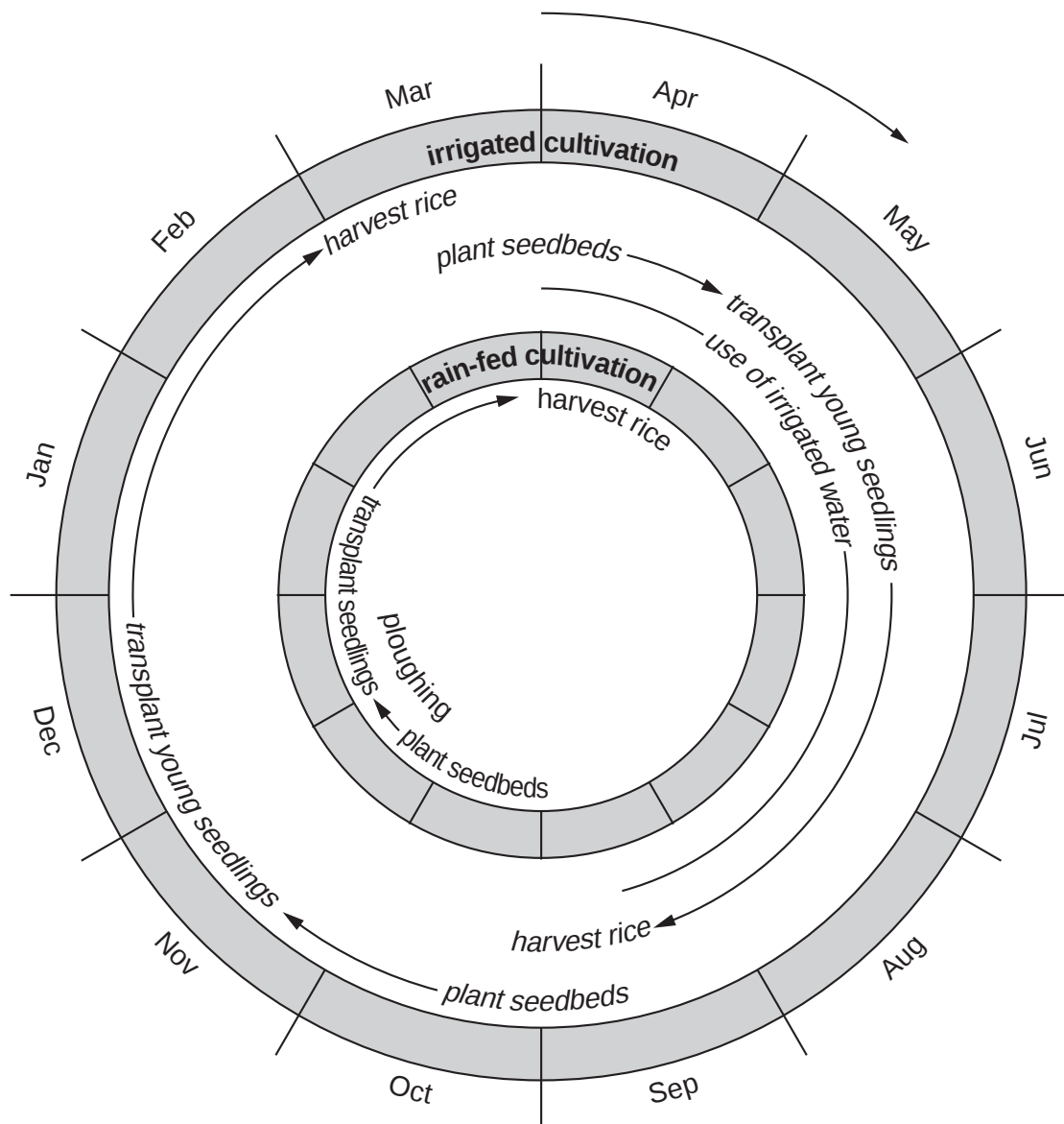


Fig. 6

- (i) Describe the traditional (older) methods used in systems of small-scale subsistence farming for each of the following processes:
- ploughing,
 - planting,
 - harvesting.
- [6]
- (ii) Why are traditional methods of farming still widely used in many parts of the world? [3]
- (iii) How does Fig. 6 suggest that irrigation can make differences to the pattern of rice cultivation throughout the year? [3]
- (b) Apart from the development of irrigation, describe how farmers in many parts of the world are attempting to produce more food. [6]

- (c) Read the newspaper extract (Fig. 7) below, concerned with food supply.

Action needed now to avert disaster

Today the world will gain another 230 000 people. Is it possible to provide for them all? There is no reason why anyone should go hungry today. The problem is poverty and the unequal distribution of wealth in the world rather than the technology to produce enough food. There is more than enough food to go round. Thirty years ago the global food supply was the equivalent of 2 360 calories a day per person; today it is 2 740 calories. Food supplies are expected to outstrip population growth for at least ten more years.

But the population explosion is mainly taking place in the developing world, where two billion people go hungry every day.

Fig. 7

- (i) Describe what the newspaper extract says about the relationship between population and food supply. [3]
- (ii) Give reasons why certain world areas still experience food shortages. [4]

- 6 (a) Show how *at least two* of the following have influenced the development of high technology industries at a named location
- labour,
 - transport,
 - research and development,
 - site factors. [6]
- (b) Global warming is one of the most serious problems facing the world in the 21st century.
- (i) With the help of data from Fig. 8 (Insert) and with reference to other information you may know, describe what is meant by global warming and how it is caused. [6]
- (ii) Why are many people throughout the world worried by the increase in global warming? [6]
- (iii) A What measures may be taken to reduce global warming? [3]
- B Why is it difficult to achieve effective results from these measures? [4]

Copyright Acknowledgements:

Figure 2	M. Pacione. <i>Geography</i> . Published by The Geographical Association. © United Nations.
Photograph A	Photograph by R. Howarth.
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Figure 7	© <i>The Guardian</i> .
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