UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Subsidiary Level

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CANDIDATE NUMBER | | | | |

ENVIRONMENTAL MANAGEMENT **8291/12**

Paper 1 Lithosphere and Atmosphere **May/June 2012**

1 hour 30 minutes

Additional Materials: Answer Booklet/Paper
1 Insert

READ THESE INSTRUCTIONS FIRST

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, tables or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Section A
Answer **all** questions.
Write your answers in the spaces provided on the question paper.

Section B
Answer **one** question from this section.
Answer the question on the separate answer paper provided.

The Insert contains the photographs for Questions 1, 2 and 5.
DO NOT WRITE ON THIS INSERT.

At the end of the examination,
1. fasten all separate answer paper securely to the question paper;
2. enter the question number from Section B in the grid opposite;
3. keep the Insert separate from the question and answer papers; it is **not** needed by the examiner.

For Examiner's Use	
Section A	
1	
2	
Section B	
Total	

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

UNIVERSITY of CAMBRIDGE International Examinations

[Turn over

Section A

Answer **all** questions in this section.

Write your answers in the spaces provided.

1 **(a)** Fig. 1.1 shows the percentage of people affected by different sources of noise in Berlin, and those strongly affected.

Content removed due to copyright restrictions. Fig. 1.1

(i) What is meant by the term *noise pollution*?

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.....[2]

(ii) What is the difference between the percentage of people affected by road noise and the percentage of people affected by noise from air traffic?

.....

difference = ...% [1]

(iii) Explain the difference between the percentage of people affected by road and the percentage affected by noise from air traffic.

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.....[2]

(iv) For both road noise and air traffic noise, about 1 in 3 people are strongly affected. Describe circumstances under which people would be strongly affected by these sources of noise.

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.....[2]

(v) Briefly describe the extent to which people are affected by noise from the remaining sources in Fig. 1.1.

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.....[6]

(b) Look at the photograph for Question 1(b) on the insert. It shows a panoramic view across part of the city of Berlin.

Describe and explain the variations in the level and type of noise pollution likely to be experienced in the region of Berlin shown in the photograph.

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[Total: 20]

2 **(a)** Study Table 2.1 containing information on the number of urban areas of great... 10 million population and between 5 and 10 million population for MEDCs and LE... between 1975 and 2015.
Answer the questions that follow.

Table 2.1

	urban population size	**numbers of urban areas in each category**			
		1975	**2000**	**2005**	**2015**
MEDCs	> 10 million	42	85	88	91
	5 – 10 million	50	42	54	67
LEDCs	> 10 million	11	154	204	268
	5 – 10 million	68	152	150	206

(i) By how much is the number of urban areas with populations of over 10 million in MEDCs and LEDCs likely to increase between 1975 and 2015?

MEDCs .....

LEDCs .....[2]

(ii) Describe the trends in the number of urban areas of 5 – 10 million and greater than 10 million for MEDCs and LEDCs in the period 1975 to 2015.

5 – 10 million .....

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greater than 10 million .....

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.....[4]

(iii) Explain why the rate of growth in the number of urban areas is higher in LEDCs.

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.....[3]

(iv) Suggest one reason for the decrease in the 5 – 10 million g roup of urban a... 2000 for MEDCs and 2005 for LEDCs.

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.....[1]

(b) Fig. 2.1 shows a model of land use within a city in a LEDC.

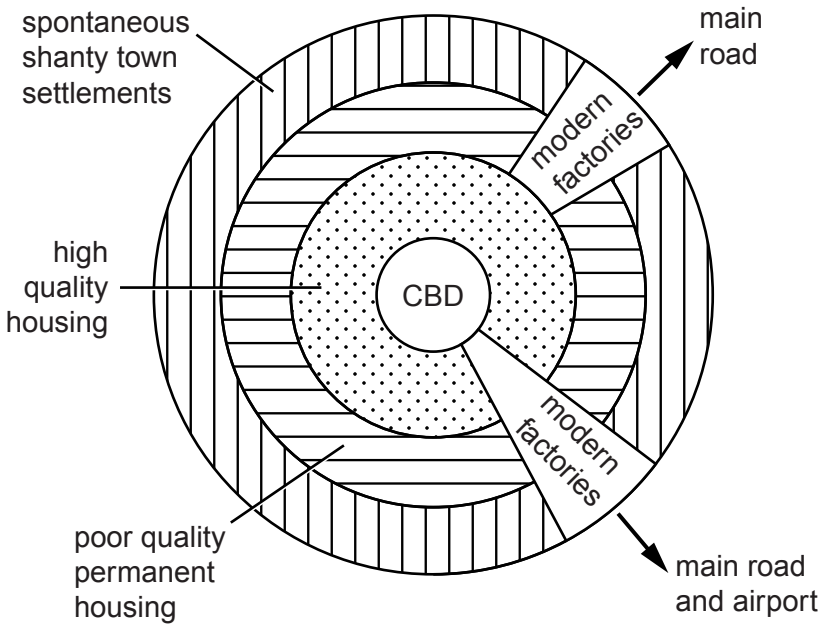

Fig. 2.1

(i) Briefly describe and give **one** reason for the location of the poorer quality housing shown in Fig. 2.1.

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.....[3]

(ii) Explain how the development of non-residential land would place pressure on land beyond the city boundary.

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.....[3]

(c) Look at the photograph for Question 2(c) on the insert. Describe the environmental issues that are associated with the development of the shanty town (favella) shown in the photograph.

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.....[4]

[Total: 20]

Section B

Answer **one** question from this section.

3 **(a)** Briefly describe how the factors contained in Fig. 3.1 work together to produce a mature soil. [10]

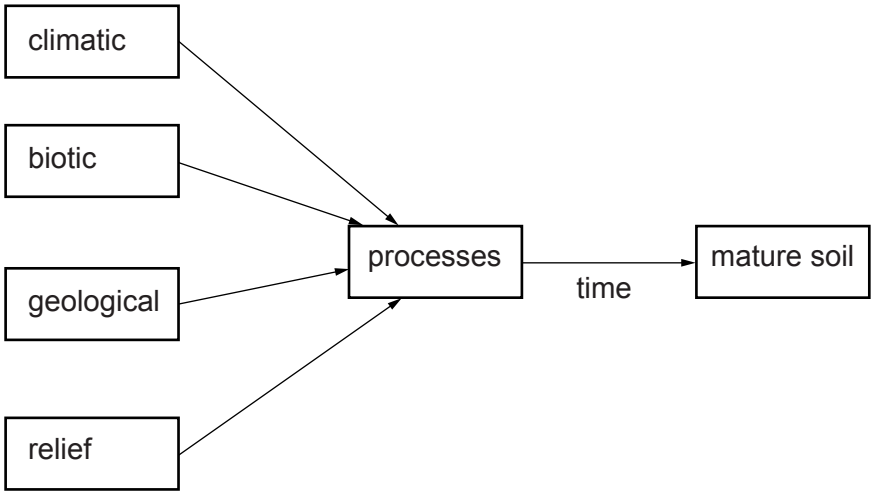
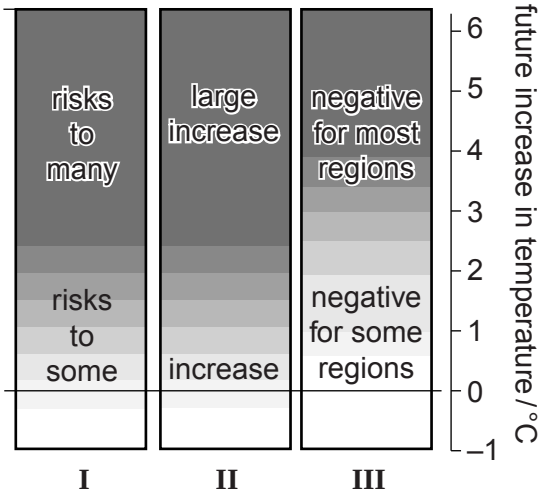


Fig. 3.1

(b) Describe **three** ways in which agricultural activity can cause the deterioration of a soil. With reference to examples you have studied, assess the ways in which the fertility of a soil can be sustained. [30]

[Total: 40]

4 **(a)** Describe and suggest reasons for the increases in risks and impacts of global wa… in Fig. 4.1.



I risks to unique and threatened ecosystems
II risks from frequency and severity of extreme climatic events
III the balance of impacts and global distribution

Fig. 4.1

(b) With reference to examples you have studied, assess how effectively the issue of global warming and climatic change is being addressed on both a national and international scale. [30]

[Total: 40]

5 **(a)** Look at the photog raphs for Question 5(a) on the inser t. They show two ef l rain. Briefly describe the processes that contr ibuted to these tw o aspects of en vi damage.

(b) With reference to urban areas with which y ou are familiar, describe the main contr ibutors t chemical pollution of the atmosphere. Assess some of the measures that are being adopted to reduce this pollution. [30]

[Total: 40]

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