UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

GEOGRAPHY **0460/13**

Paper 1 **May/June 2013**

1 hour 45 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Calculator

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 Photograph A for Question 1, Photograph B for Question 5 and Photograph C for Question 6.
The Insert is **not** required by the Examiner.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

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.

For Examiner's Use	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	
Total	

This document consists of **26** printed pages, **2** blank pages and **1** Insert.

UNIVERSITY *of* CAMBRIDGE
International Examinations

[Turn over

PA CAMBRIDGE

QUESTION 1

1 **(a)** Study Fig. 1, which shows the population density of areas around the world.

Key ▓ high density ░ medium density ☐ low density
(10–50 people per km^2)
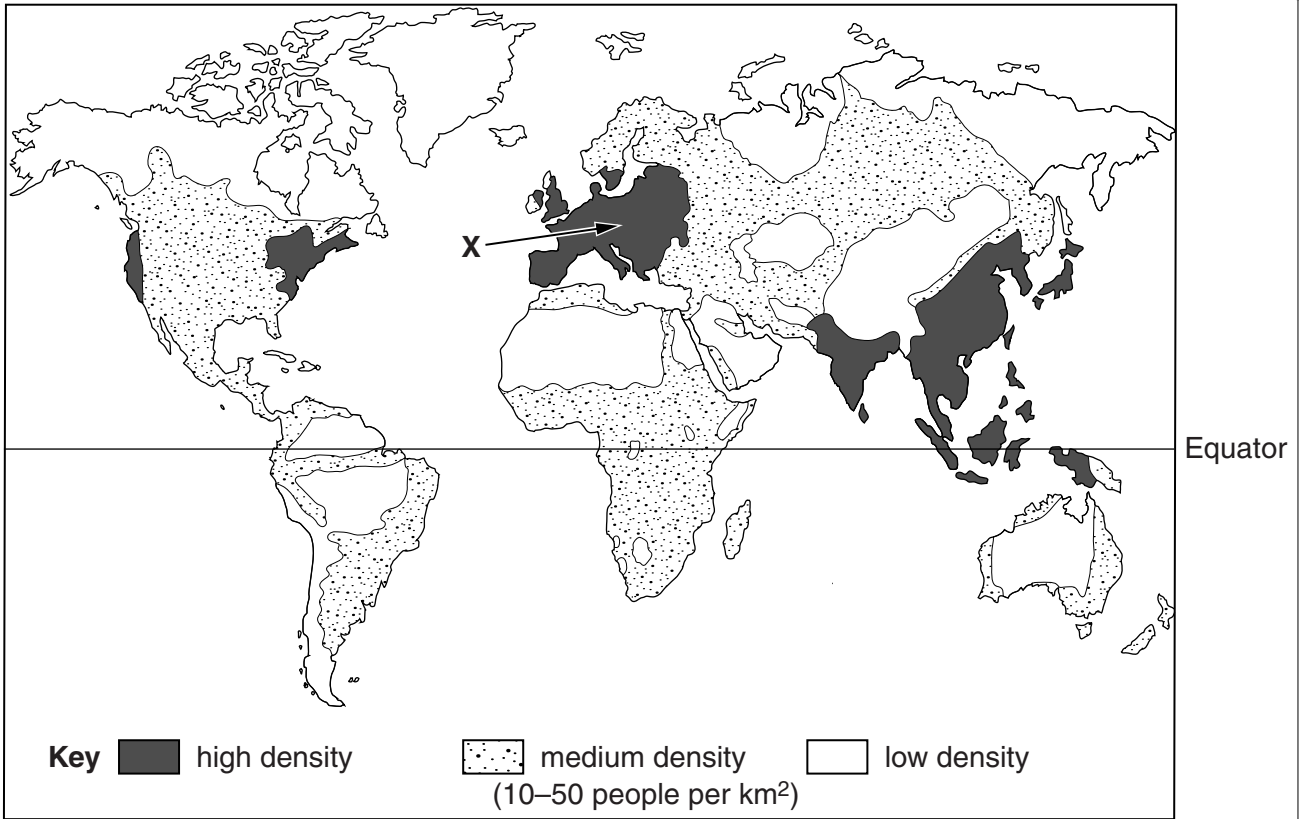
Fig. 1

(i) What is meant by a *low population density*?

....

....[1]

(ii) Name an area shown on Fig. 1 with a low population density;

A that also has an arid (very dry) climate,

....

B that is also in the Southern Hemisphere.

....[2]

(iii) Suggest **three** reasons why the area marked **X** on Fig. 1 has a high pop............. density.

1 ....

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2 ....

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3 ....

....[3]

(iv) Overpopulation occurs when there are too many people for the available resources.

Describe **four** different problems which overpopulation may cause in a country.

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4 ....

....[4]

[Turn over

PA CAMBRIDGE
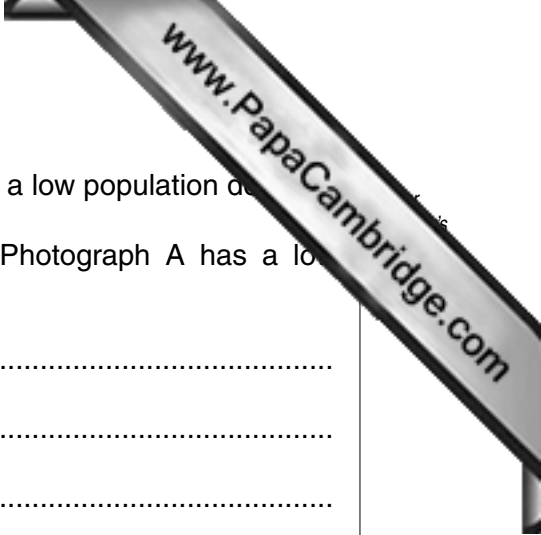
(b) Study Photograph A (Insert), which shows an area which has a low population d...

    (i) Give **three** different reasons why the area shown in Photograph A has a lo... population density.

       1 ....

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       2 ....

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       3 ....

         ....[3]

    (ii) Suggest why some people live in areas of low population density, such as the one shown in Photograph A.

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         ....[5]

PA CAMBRIDGE

(c) For a named country which you have studied, describe the distribution of its pop
and draw a labelled sketch map to show this distribution.

Name of country ....

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[7]

[Total: 25 marks]

END OF QUESTION 1

[Turn over

QUESTION 2

2 (a) Study Fig. 2, which shows information about households in five boroughs of New York, a city in the USA (MEDC).

	Bronx	Brooklyn	Manhattan	Queens	Staten Island
Average (mean) annual income per household (US$)	46 000	60 000	121 000	67 000	81 000
Percentage of households which are very poor	27	22	17	12	10
Percentage of households with residents not born in the USA	29	38	30	49	21

Fig. 2

(i) Complete Fig. 3 below, which shows the percentage of households which a[...]
poor, by shading Manhattan.
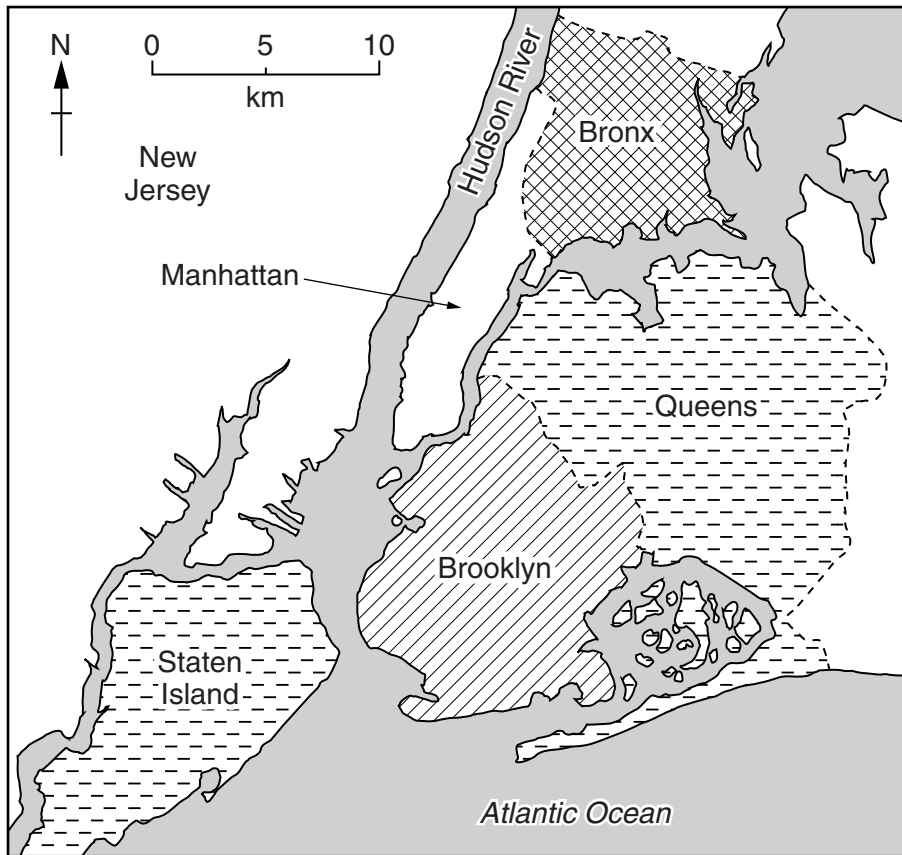
Key
percentage of households which are very poor

⊠⊠⊠	over 25
⟋⟋⟋	20 to 25
⟍⟍⟍	15 to 19.9
– – –	less than 15

Fig. 3

(ii) Name:

A The borough with the highest average (mean) annual income per household;

....

B The borough with the highest percentage of households with residents not born in the USA.

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[2]

[Turn over
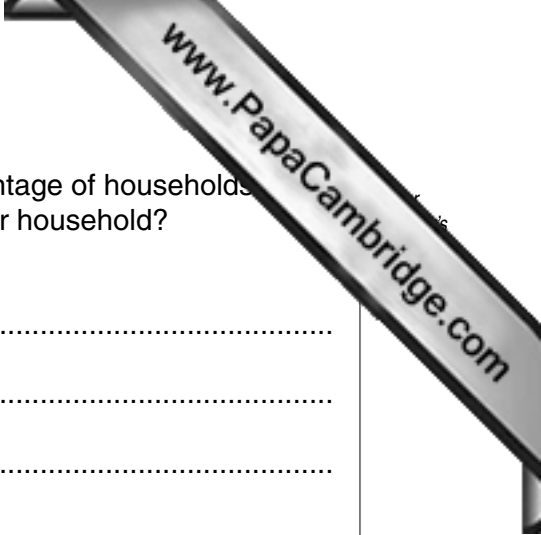
(iii) To what extent is there a relationship between the percentage of households .... are very poor and the average (mean) annual income per household?
Use data from Fig. 2 to support your answer.

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....[3]

(iv) Suggest what problems are faced by people not born in the USA living in large urban areas like New York.

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....[4]

(b) Study Fig. 4, a headline from a newspaper.

> # Air pollution in New York reaching crisis levels

Fig. 4

(i) Describe **three** different problems caused by air pollution in cities in MEDCs such as New York.

1 ....

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2 ....

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3 ....

.... [3]

(ii) Explain why there are high levels of air pollution in many cities.

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.... [5]

(c) For a named urban area which you have studied describe the main features of the following land use zones:

Inner city   Outer suburbs   Rural-urban fringe

Name of urban area ....

Chosen land use zone ....

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....**[7]**

[Total: 25 marks]

END OF QUESTION 2

PA CAMBRIDGE

QUESTION 3

3 (a) Study Fig. 5, which shows data about the weather recorded on one day at meteorological station.

Air Pressure (mb)	Maximum temperature (°C)	Minimum temperature (°C)	Wet bulb temperature (°C)	Dry bulb temperature (°C)	Relative Humidity (%)
1002	16	7	6	8	75

Wind direction	Cloud type	Cloud amount (oktas)	Precipitation (mm)
SW	Alto stratus	2	1

Fig. 5

(i) Calculate the daily range of temperature at the meteorological station.

.... °C   [1]

(ii) Give an example of a weather recording which was:

A measured by an instrument;

....

B obtained by observation.

....   [2]

(iii) Explain how the relative humidity value of 75% would have been obtained.

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....[3]

(iv) The thermometers used at the meteorological station are kept in a Ste........ Screen. Explain how this ensures that reliable readings are obtained.

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....[4]

(b) Study Fig. 6, which shows the climate of Kisangani, Democratic Republic of Co_____ area of tropical rainforest.
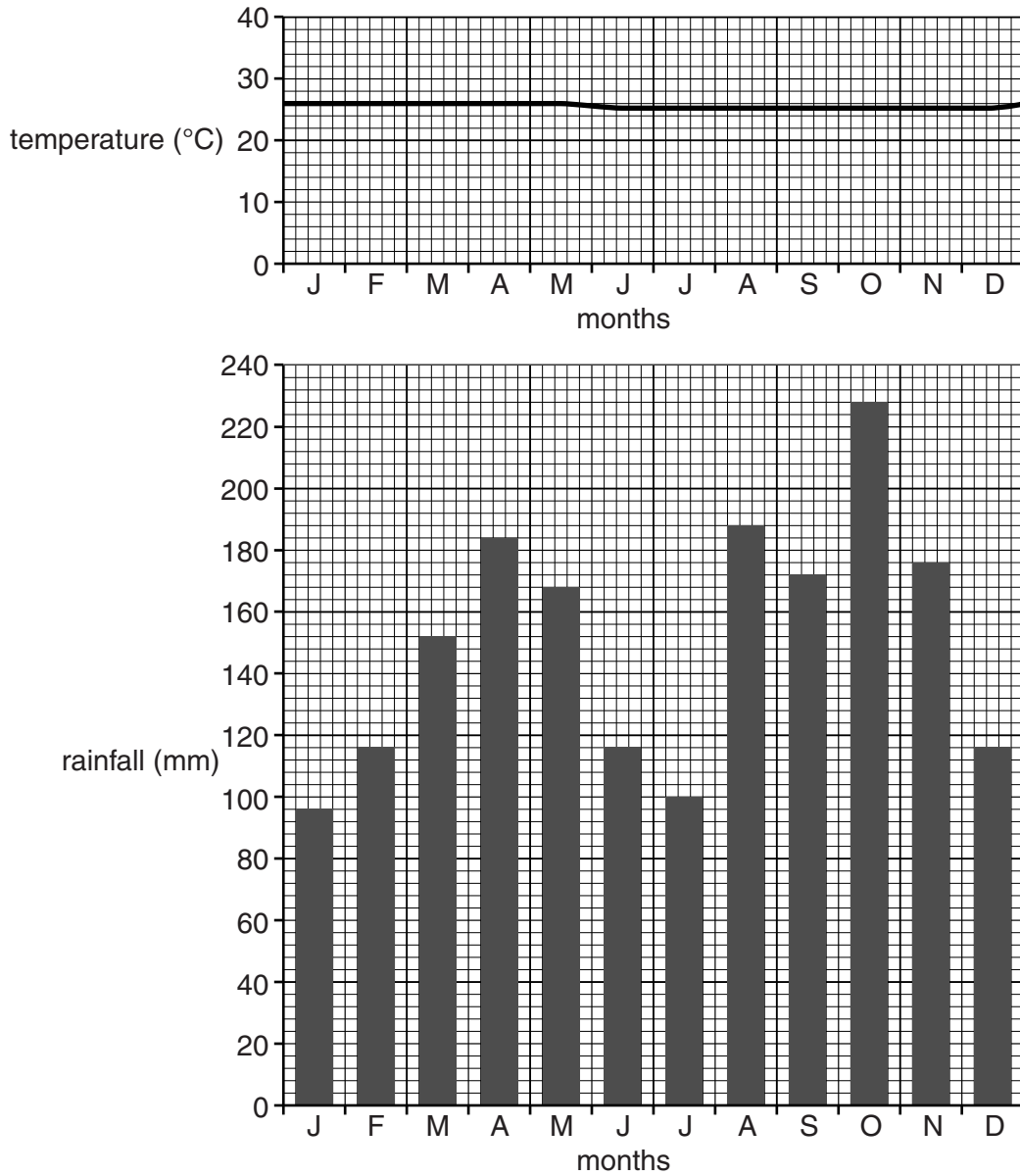
Fig. 6

(i) Using Fig. 6 **only**, describe the main features of the climate of Kisangani.

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....[3]

[Turn over

(ii) Give reasons for the climate of an area of tropical rainforest such as Kisang

....

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....[5]

(c) Name an area of tropical rainforest which you have studied and explain why defore[...] is taking place there.

Name of area ....

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[Total: 25 marks]

END OF QUESTION 3

[Turn over

QUESTION 4

4 (a) Study Fig. 7, which shows major plates and zones of tectonic activity.
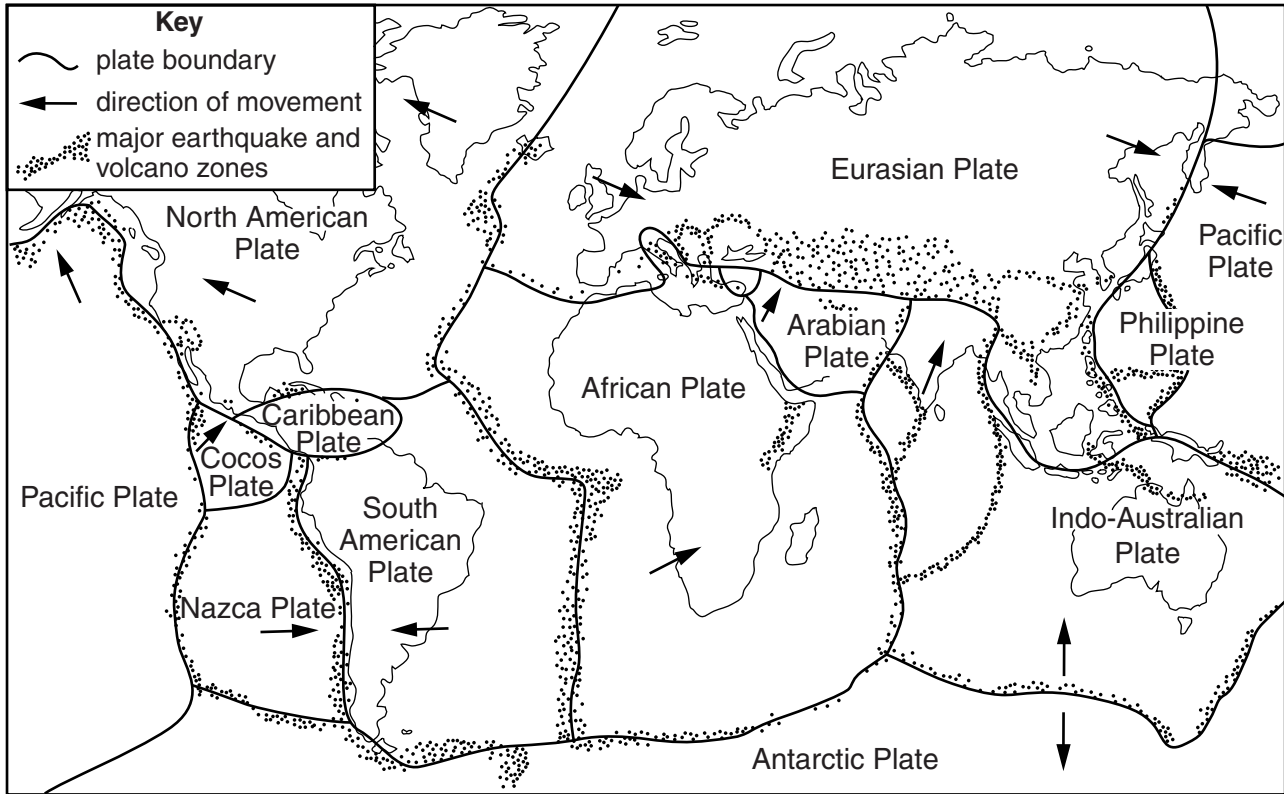
Fig. 7

(i) What is meant by *tectonic activity*?

....

....[1]

(ii) The following processes take place at different plate boundaries shown on Fig. 7. For each process name two plates on a boundary where the process is occurring.

A subduction

....

B plates moving apart.

....[2]

(iii) Describe the global distribution of major earthquake and volcano zones sh............
Fig. 7.

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....[3]

(iv) Explain why the risk of volcanic eruptions is high in some parts of the world.

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....[4]

[Turn over

(b) Study Fig. 8, which shows information about an earthquake in Los Angeles (MEDC).

Golden State Highway blocked by collapse

SAN GABRIEL MOUNTAINS

0   20
km

Sylmar: whole streets on fire

San Fernando

SANTA SUSANA MOUNTAINS

Northridge

San Fernando Valley

Simi Valley

SIMI HILLS

San Fernando Valley

Sherman Oaks Pasadena

Santa Monica Bridge collapses on USA's busiest highway

EPICENTRE: NORTHRIDGE

Wood-frame apartment block, housing mainly students, collapses killing 14. Buildings in shopping centre collapse

Hollywood

SANTA MONICA MOUNTAINS

Santa Monica

LOS ANGELES

Fig. 8

(i) Identify **three** different types of impact of the earthquake shown on Fig. 8.

1 ....

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2 ....

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3 ....

....[3]

(ii) Explain why the impacts of earthquakes of similar intensity are likely to be MEDCs such as the USA than in LEDCs.

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....[5]

(c) Explain the causes of an earthquake which occurred in a named area which you have studied.

Name of area...

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....[7]

[Total: 25 marks]

END OF QUESTION 4

[Turn over

QUESTION 5

5 **(a)** Study Fig. 9, which shows information about a sugar refinery in Europe.

dried pulp for
cattle fodder 33 tonnes

farms

sugar beet
4064 tonnes

sugar
beet
refinery

lime

coke/coal 268 tonnes

sugar 538 tonnes

molasses 51 tonnes

limestone (for purification) 173 tonnes

to the market

for yeast and
alcohol

The figures refer to the inputs and
outputs for one day's production.
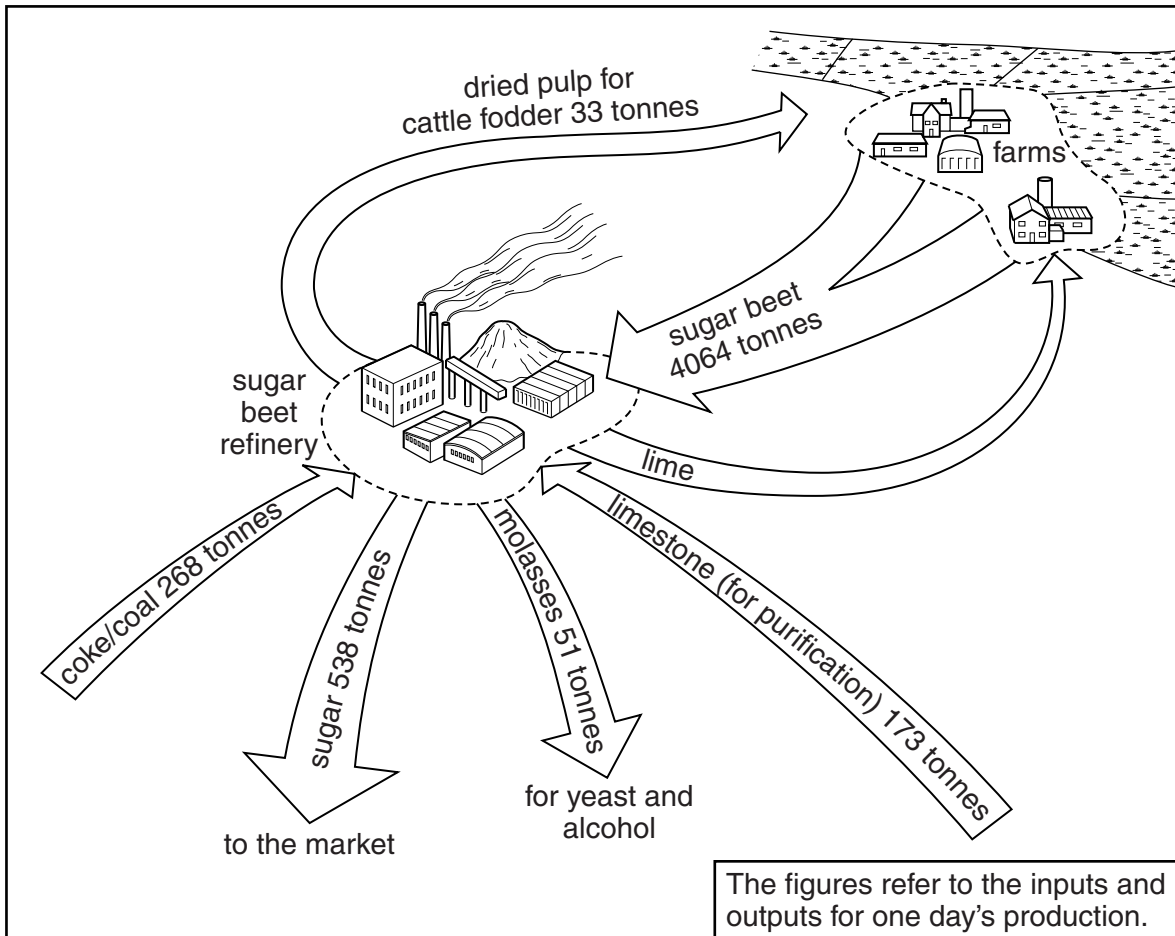
Fig. 9

   (i) Identify the main raw material which is used in the sugar refinery.

   ....[1]

   (ii) Identify **two** outputs from the refinery, other than sugar.

   1 ....

   2 ....   [2]

(iii) Three jobs are listed in the table below. Complete the table by writing the following words in the correct spaces to classify the types of employment.

Primary   Secondary   Tertiary

Job	Type of employment
Packaging sugar in the refinery	
Growing sugar beet	
Driving lorries delivering sugar	

[3]

(iv) Suggest why the refinery is located close to its main raw material rather than the market for the sugar.

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....[4]

(b) Study Photograph B (Insert), which shows a sugar refinery.

(i) Describe **three** features of the sugar refinery buildings shown in Photograph B.

1 ....

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....[3]

[Turn over

(ii) Describe the problems which manufacturing industries, such as the sugar r........
might cause for the local natural environment.

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....[5]

(c) For a named example of an area where high technology industry has been located, explain what has attracted this type of industry to the area.

Name of area ....

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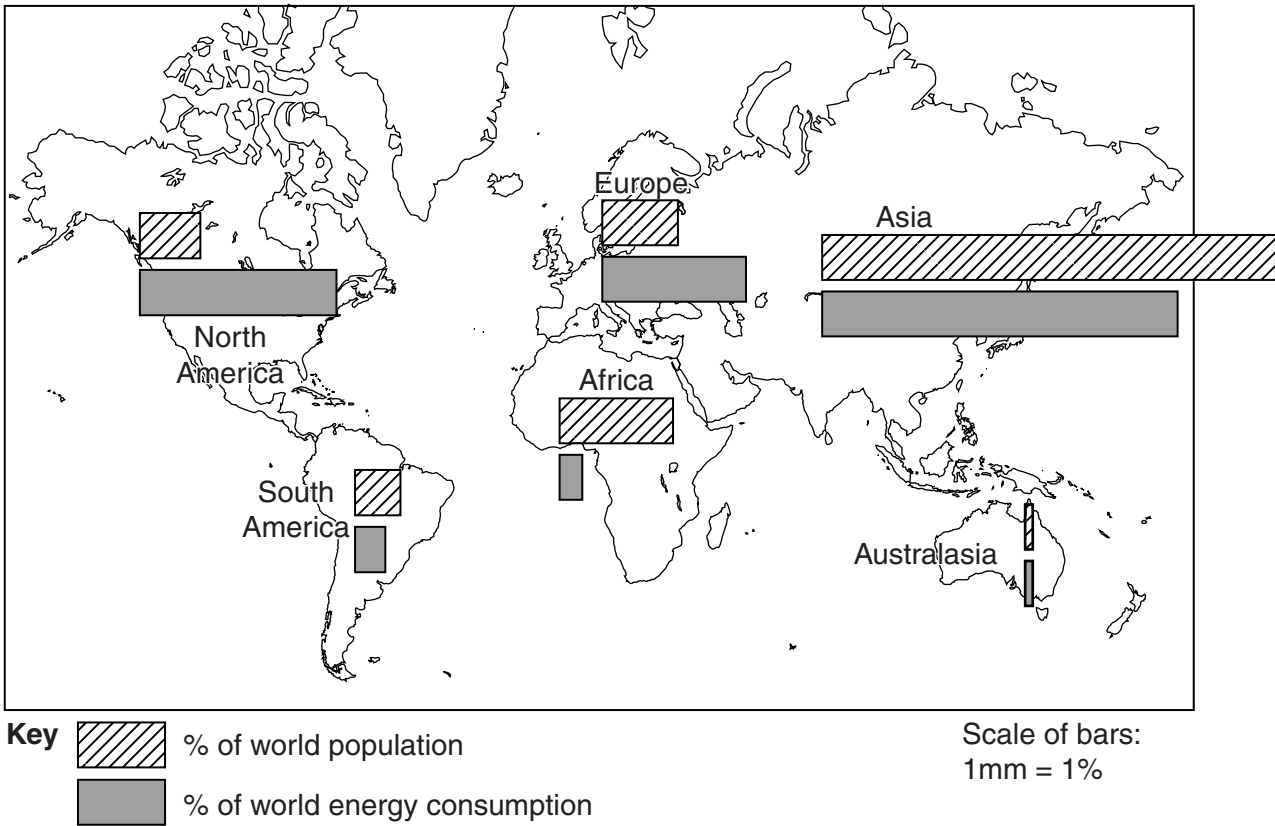
[Total: 25 marks]

END OF QUESTION 5

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QUESTION 6

6 **(a)** Study Fig. 10, which shows information about the population and the consumption of energy in the different continents.


Fig. 10

(i) Name one continent which has a smaller percentage of the world's population than of its energy consumption.

.... [1]

(ii) Complete the table below by inserting the names of the three missing continents. The continents should be arranged in rank order of their energy consumption.

Highest percentage of world energy consumption
Asia
Europe
Australasia
Lowest percentage of world energy consumption

[2]

[Turn over]
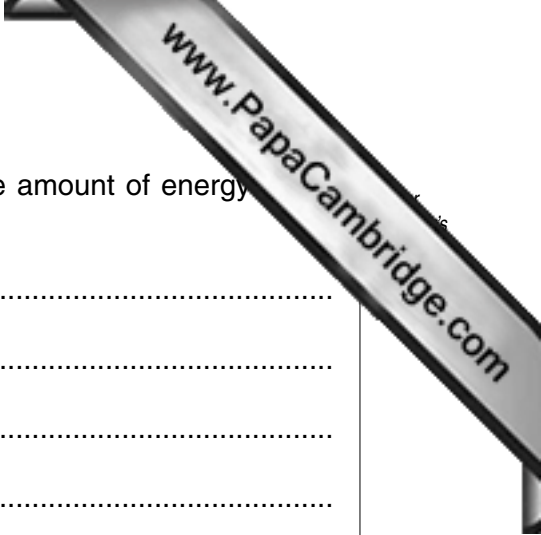
(iii) Suggest reasons why many MEDCs want to reduce the amount of energy they import.

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.... [3]

(iv) Some areas are facing a shortage of non-renewable energy. Describe how renewable energy could be generated in such areas.

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.... [4]

(b) Study Photograph C (Insert), which shows a coal-fired power station.

(i) Explain why there is concern about the global environmental impacts of coal-fired power stations, such as the one shown in Photograph C.

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.... [3]

(ii) Explain the factors which influence the location of coal-fired power stations such as the one shown in Photograph C.

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....[5]

(c) Name an area or a country which you have studied where large amounts of fuelwood are used for energy. Describe the problems this causes for local people and the natural environment.

Name of area or country...

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....[7]

[Total: 25 marks]

END OF QUESTION 6
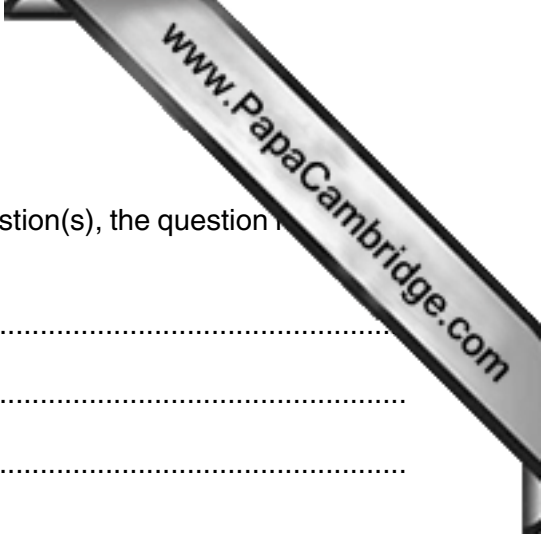
Additional Page
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