UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

GEOGRAPHY	**0460/12**
Paper 1	**May/June 2010**
	1 hour 45 minutes

Additional Materials: Answer Booklet/Paper
                          Ruler

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, B and C for Question 2 and Photograph D for Question 3.

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.

UNIVERSITY *of* **CAMBRIDGE**
International Examinations

[Turn over

1   **(a)**   Study Fig. 1, which shows information about the birth and death rates of Niger~~~~~~)
and Ireland (an MEDC).

Country	Birth Rate (per 1000 of population)	Death Rate (per 1000 of population)
Nigeria	37.2	16.9
Ireland	14.4	7.8

Fig. 1

  (i)   Ireland has a birth rate of 14.4. What is meant by this?   [1]

 (ii)   Calculate the natural population growth rate of Nigeria. You must show your calculations.
                                                                                                          [2]

(iii)   Explain why there are low death rates in MEDCs such as Ireland.   [3]

(iv)   Explain why there are high birth rates in LEDCs such as Nigeria.   [4]

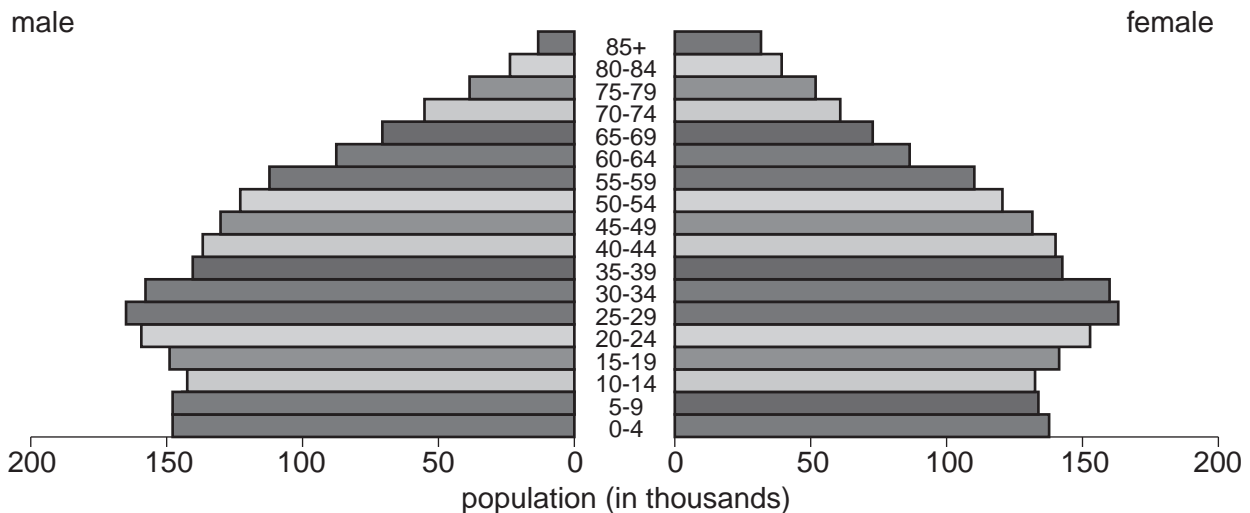 **(b)**   Study Fig. 2, which shows a population pyramid for Ireland (an MEDC).

male   female

Fig. 2

  (i)   Suggest **three** ways in which the population pyramid shown for Ireland in Fig. 2 is likely
to be different from a population pyramid for an LEDC.   [3]

 (ii)   Describe the likely problems for an MEDC, such as Ireland, of having so many old
dependents.   [5]

  (c)   The size and structure of the population in a country may change as a result of government
policies.

For a named country which you have studied, describe the policies which have been used by
the government to influence rates of natural population growth.   [7]

[Total: 25 marks]

2 (a) Study Fig. 3, a map which shows the location of one shopping area in an [...] a possible site for another.
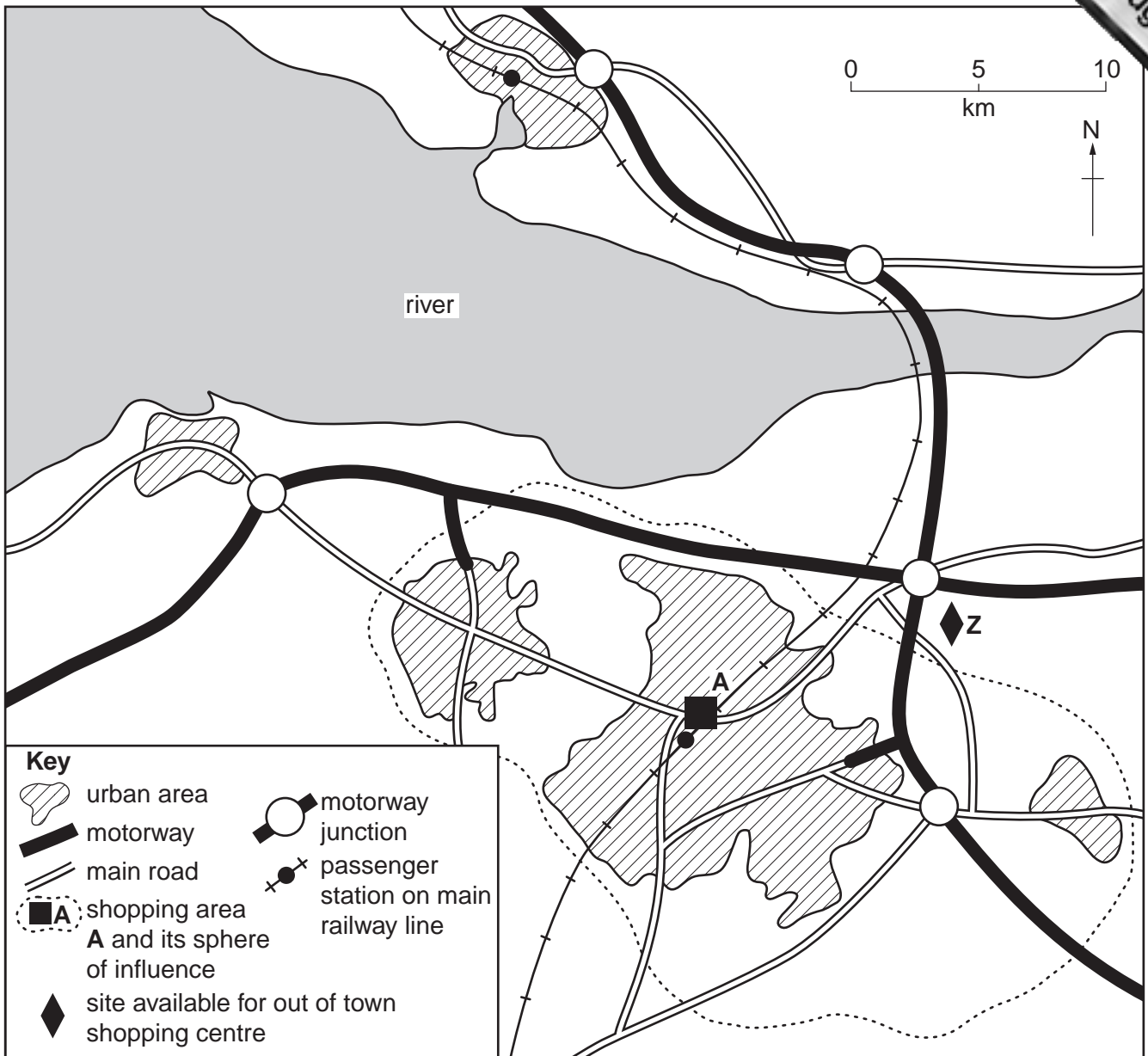

Fig. 3

(i) What type of shopping area is labelled **A** on Fig. 3?
You should choose from:
Central Business District (CBD),
district centre,
neighbourhood (local) centre. [1]

(ii) Describe the sphere of influence of shopping centre **A**. [2]

(iii) Give **three** reasons why site **Z** would be suitable for building an out of town shopping centre. [3]

(iv) Explain how the opening of a shopping centre at **Z** may affect shops and shoppers in the urban areas shown on Fig. 3. [4]

(b) Study Photographs A, B and C (Insert) which show different types of shopping c

    (i) For each photograph state whether it shows a Central Business District, a neighbo
(local) centre or an out of town shopping centre.

    (ii) Explain why many people only travel short distances to use the shops and services in a
neighbourhood (local) shopping centre. [5]

(c) For a named urban area which you have studied, describe the main features of its Central
Business District (CBD). [7]

[Total: 25 marks]

3 (a) Study Fig. 4, which shows a cross section of a river meander.
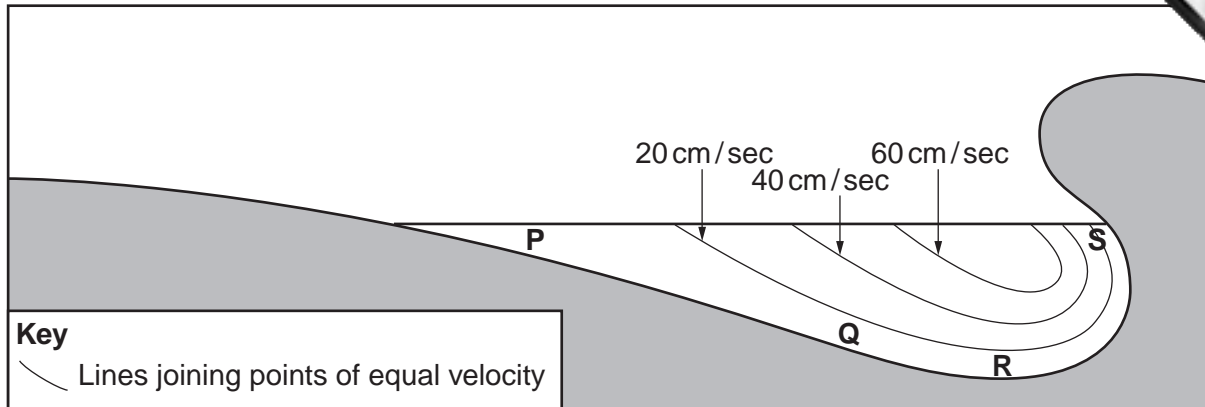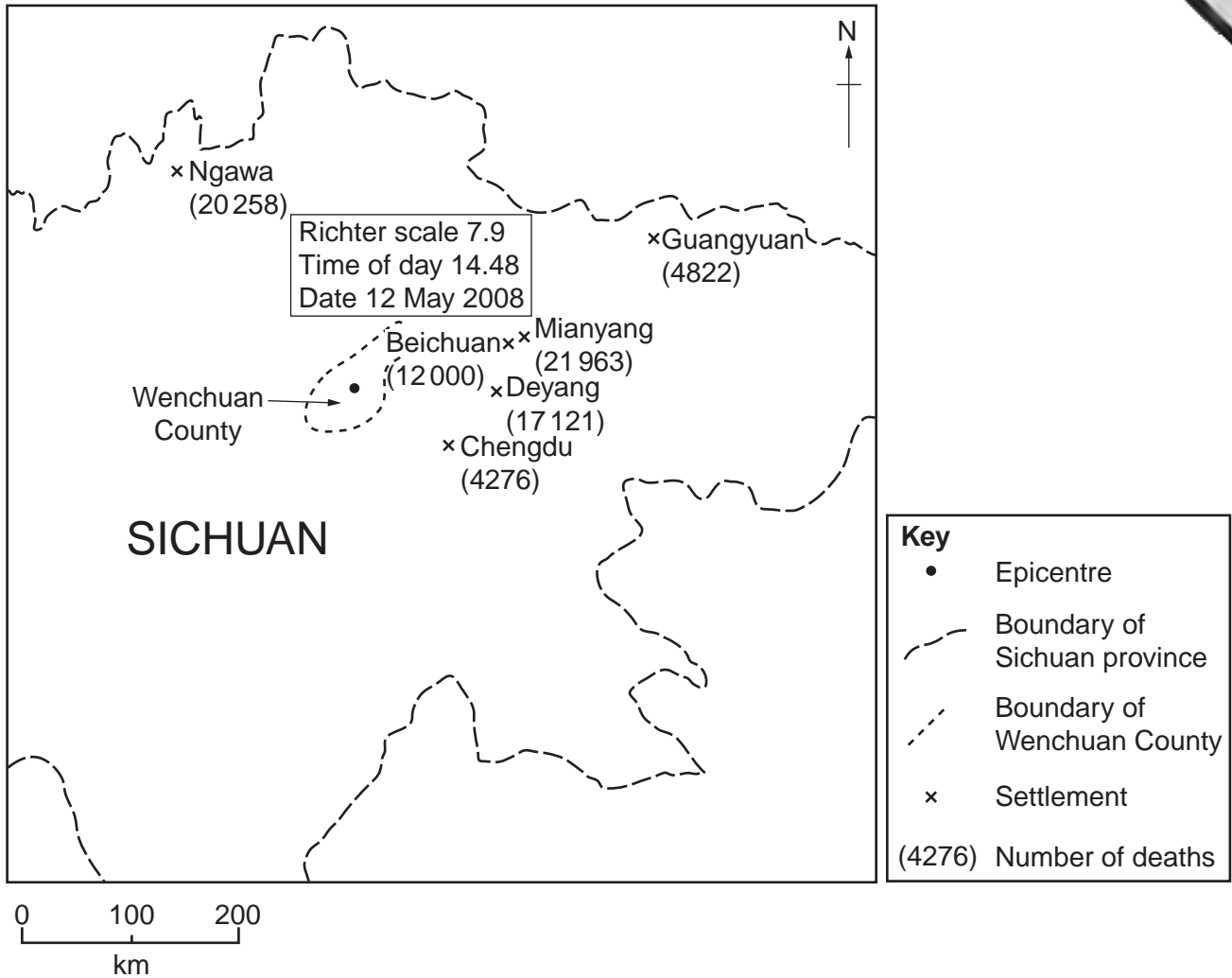

Fig. 4

    (i) At which point is deposition most likely **P**, **Q**, **R** or **S**? [1]

    (ii) Why is erosion more likely at point **S** than point **P**? [2]

    (iii) Explain how the process of hydraulic action may erode the bed and banks of a river. [3]

    (iv) Name and explain **two** processes by which a river transports its load. [4]

(b) Study Photograph D (Insert) which shows part of a river and its flood plain.

    (i) Describe **three** likely impacts of flooding in the area shown in the photograph. [3]

    (ii) What methods can be used to reduce flooding? [5]

(c) Describe the advantages and difficulties for people of living on a river delta. You should refer to a delta which you have studied. [7]

[Total: 25 marks]

4   (a)   Study Fig. 5, which shows information about an earthquake in Sichuan province, ~~which~~ occurred in May 2008.

× Ngawa
(20 258)

Richter scale 7.9
Time of day 14.48
Date 12 May 2008

×Guangyuan
(4822)

Beichuan×× Mianyang
(12 000)   (21 963)

Wenchuan
County   × Deyang
(17 121)
× Chengdu
(4276)

SICHUAN

N

Key

• Epicentre

Boundary of
Sichuan province

Boundary of
Wenchuan County

× Settlement

(4276) Number of deaths

0   100   200

km

Population	Damage	Economy
… **Total**	… **Buildings**	**US$86,000,000,000**
46,200,000 affected	**21,000,000** buildings damaged	economic loss (est.)
15,000,000 evacuated	**5,000,000** buildings collapsed	… **Funding (US$)** ....
5,000,000 homeless	**8,426** water treatment plants damaged	**3,370,000,000** China's Disaster Relief Fund
374,159 injured	**7,000** schools destroyed	… **Reconstruction (US$)** ......
80,440 dead	… **Roads**	8 years to rebuild
… **Children**	**53,294** km of roads destroyed	**29,000,000,000** to
9,000 dead in collapsed schools		**43,000,000,000** needed for the local economy to recover
2,000 orphans		

Fig. 5

(i) Where was the epicentre of the Sichuan earthquake? [1]

(ii) Name **two** settlements where over 20 000 people were killed by the Sichuan earthquake.

(iii) Suggest **three** reasons why many thousands of people were killed by this earthquake.
[3]

(iv) Explain the long-term effects which are likely to result from this earthquake. [4]

(b) Study Fig. 6, an article from a website about the Sichuan earthquake.

Who is to blame for collapsed schools?

Thousands of schoolchildren were among the 80 000 people killed or missing after the massive 12 May Sichuan earthquake.
Parents who lost their children want to know why so many schools collapsed – something many blame on poor construction, linked to local corruption.
In Beichuan, where about 1300 children were killed, Mu Qibing, whose 17-year-old son was killed, told Reuters: "They said this building was strong and earthquake-proof, but when we saw it, the concrete was like talcum powder and the steel was as thin as noodles."
Beichuan suffered such severe damage that the whole town will be rebuilt in a new location.

Fig. 6

(i) Suggest **three** different ways to protect people in Sichuan province from future earthquakes. [3]

(ii) Explain why many people live in areas such as Sichuan, even though they are at risk from earthquakes. [5]

(c) Explain the causes of an earthquake which occurred in a named area which you have studied.
[7]

[Total: 25 marks]

5 **(a)** Study Fig. 7, which shows the percentage of the world's high technology exports in selected countries.

Fig. 7

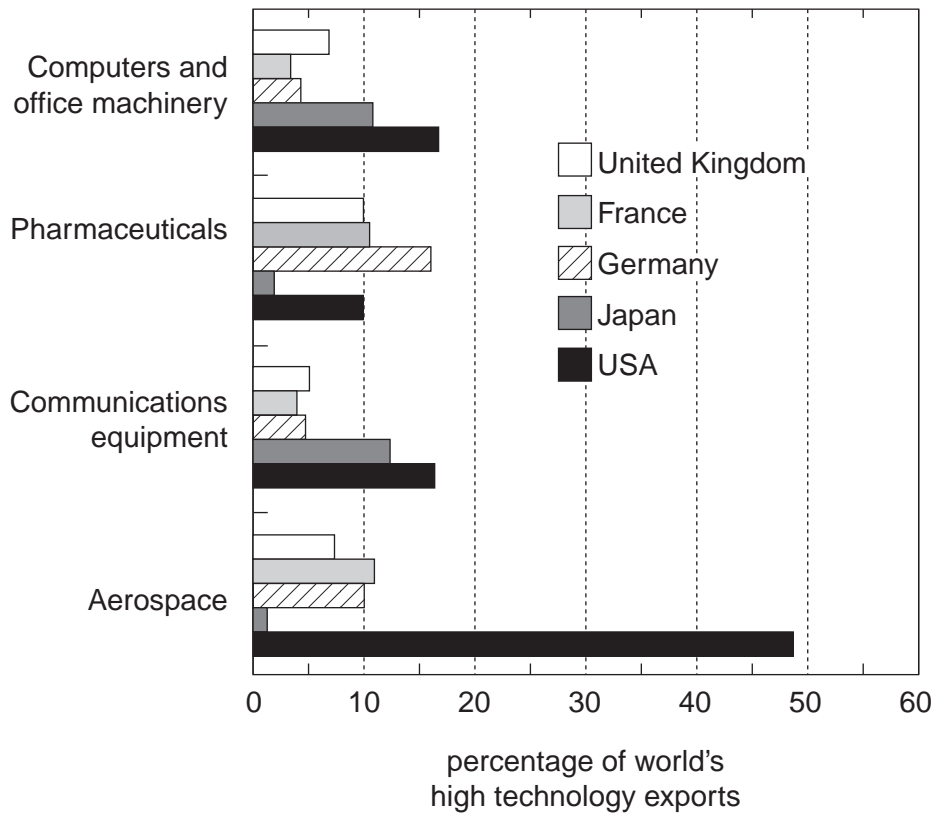**(i)** What is meant by high technology industry? [1]

(ii) Identify the country which exports:

A. 11% of the world's pharmaceuticals,
B. 7% of the world's computers and office machinery. [2]

(iii) Compare the share of high technology industry exports from Germany with the share from the USA. You should use figures in your answer. [3]

(iv) What factors attract high technology industries to an area? [4]

(b) Study Fig. 8, which shows the employment structure of Malaysia in 1980 and 2008. Malaysia is a newly industrialising country (NIC) in South East Asia.

1980   2008

Key

| primary |
| secondary |
| tertiary |
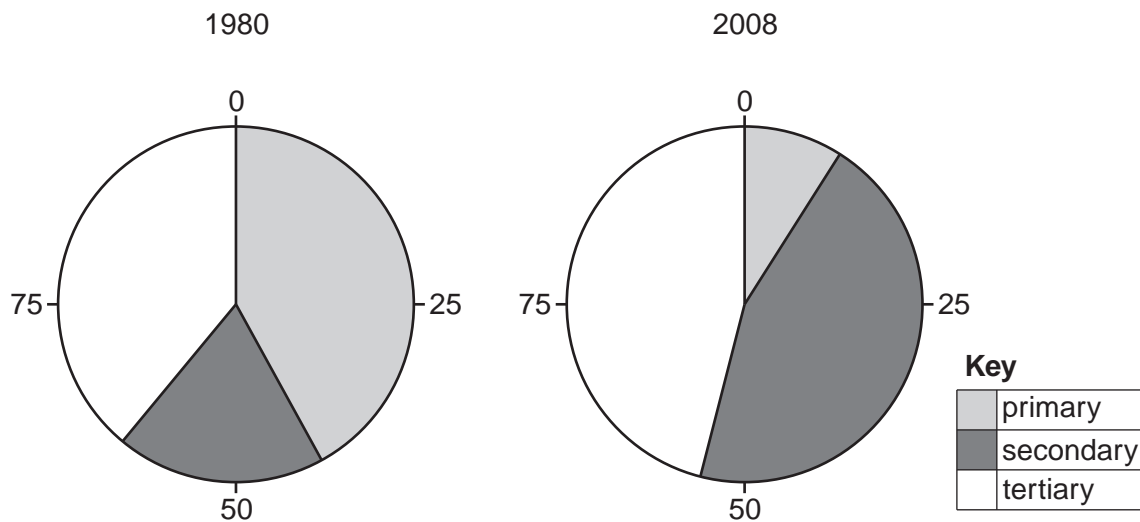
Fig. 8

(i) Describe how the employment structure of Malaysia changed between 1980 and 2008. Support your answer with figures.   [3]

(ii) Suggest how the growth of high technology industries in NICs, such as Malaysia, benefits the people and the economy.   [5]

(c) Name an area where either manufacturing or processing industry is important and give an example of a type of industry (or factory) which you have studied in that area. Explain the reasons for its growth at that location.   [7]

[Total: 25 marks]

6 (a) Study Fig. 9, which shows the percentage use of water in selected world regions.
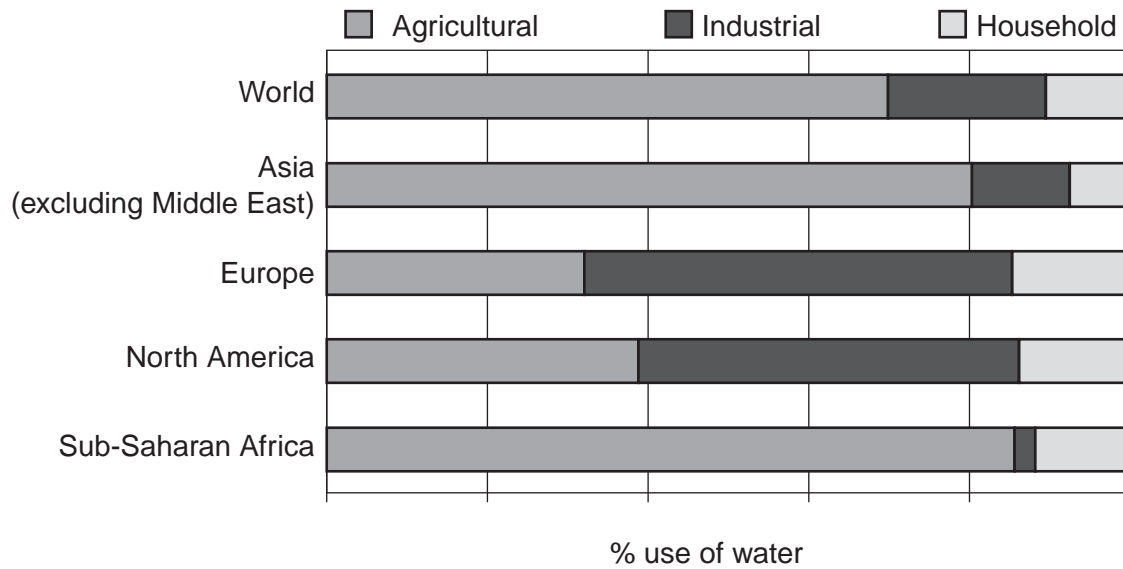
Fig. 9

(i) What is meant by *industrial* use of water? [1]

(ii) State **two** differences between the percentage use of water in Europe and Asia. [2]

(iii) Suggest reasons for the variation in the percentage use of water in Europe and Asia. [3]

(iv) The total amount of water used for household purposes in the world is increasing. Suggest reasons for this. [4]

(b) Study Fig. 10, which shows information about access to clean drinking water.
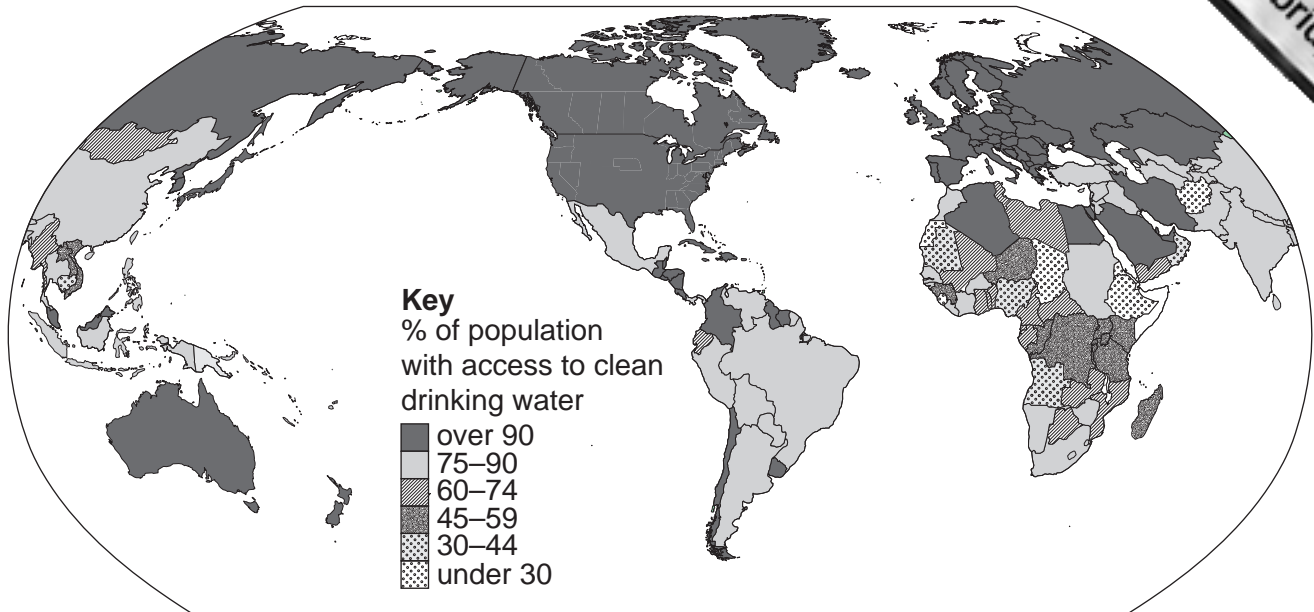
Fig. 10

(i) Describe the distribution of areas where more than 90% of the population has access to clean drinking water. [3]

(ii) Describe how the population of a country can be provided with a reliable supply of clean drinking water. [5]

(c) Many areas have a shortage of water supplies. Describe the likely impacts of a water shortage on the people and development of a named area which you have studied. [7]

[Total: 25 marks]

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