GradeMax

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER | | | | | |

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0932340029

GEOGRAPHY **0460/12**

Paper 1 **May/June 2017**

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 an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Write your answer to each question in the space provided.
If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.

Answer **three** questions, **one** from each section.

The Insert contains Fig. 3 and Photographs A, B and C for Question 2, and Photograph D 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.

Definitions
MEDCs – More Economically Developed Countries
LEDCs – Less Economically Developed Countries

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **27** printed pages, **1** blank page and **1** Insert.

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Section A

Answer **one** question from this section.

QUESTION 1

1 (a) Study Fig. 1, which shows information about the population of Mexico (an LEDC) in 2000 and 2025 (estimated).

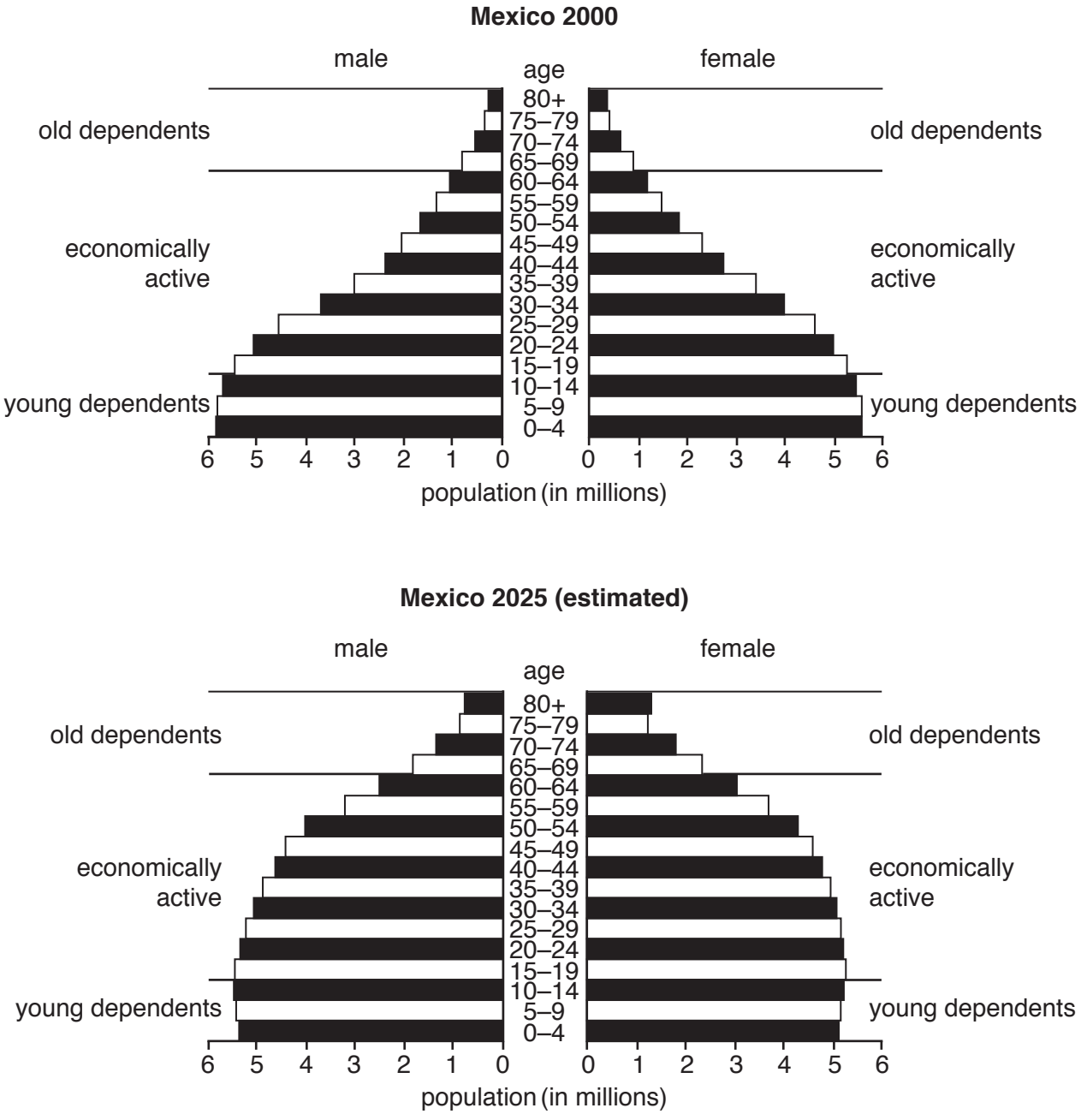

Fig. 1

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(i) Estimate the number of young dependents in Mexico in 2000.

Choose from the list below and circle your answer.

6 million 17 million 32 million 60 million [1]

(ii) Using Fig. 1, describe how the numbers of young and old dependents in Mexico are likely to change between 2000 and 2025.

Young dependents .....

.....

Old dependents .....

.....[2]

(iii) Give **three** reasons why the number of young dependents in LEDCs, such as Mexico, is high.

1 .....

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2 .....

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3 .....

.....[3]

(iv) Describe how the population structure of an MEDC is likely to be different from the population structure of LEDCs such as Mexico.

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(b) Study Fig. 2, which shows information about the increase in the percentage of the world population aged 65 and over between 2000 and 2048 (estimated).

World population aged 65 and over

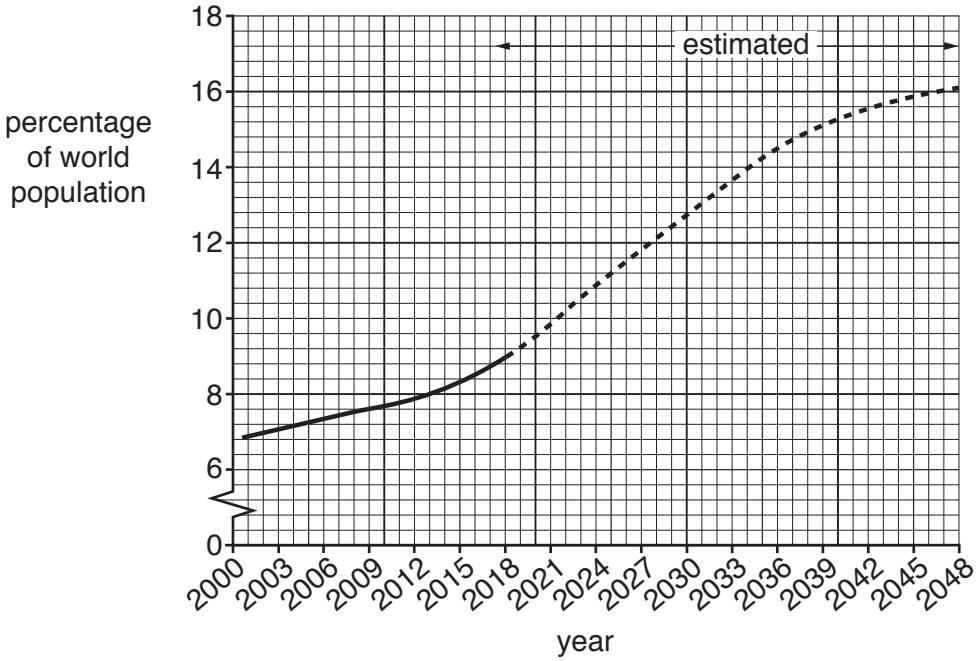

Fig. 2

(i) Using Fig. 2 **only**, describe the changes in the rate of increase in the percentage of the world population aged 65 and over

from 2000 to 2012 .....

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from 2012 to 2039 .....

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from 2039 to 2048. .....

.....[3]

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(ii) Explain why the percentage of old dependents in the world is increasing.

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(c) For a named country you have studied, describe the problems caused by an increasing percentage of young or old dependents.

Name of country .....

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[Total: 25 marks]

END OF QUESTION 1

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QUESTION 2

2 (a) Study Fig. 3 (Insert), a map showing selected land uses in Ipswich, an urban area in the UK (MEDC).

(i) Identify the main land use in Ipswich.

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.....[1]

(ii) Suggest why area **X** is likely to have a higher building density than area **Y**.

.....

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.....[2]

(iii) Using Fig. 3 **only**, describe the distribution of industry in Ipswich.

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.....[3]

(iv) Suggest reasons for the location of the industry labelled **Z**.

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(b) Study Photographs A, B and C (Insert), which show three different types of land use in the rural-urban fringe of cities.

(i) Identify the main land use in each of Photographs A, B and C.

Photograph A .....

Photograph B .....

Photograph C .....[3]

(ii) Explain why land uses such as those shown in Photographs A, B and C are located in the rural-urban fringe.

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(c) For a named urban area you have studied, describe the problems which are caused by urban sprawl.

Name of urban area .....

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[Total: 25 marks]

END OF QUESTION 2

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Section B

Answer **one** question from this section.

QUESTION 3

3 **(a)** Study Fig. 4, which shows a diagram of a volcano.

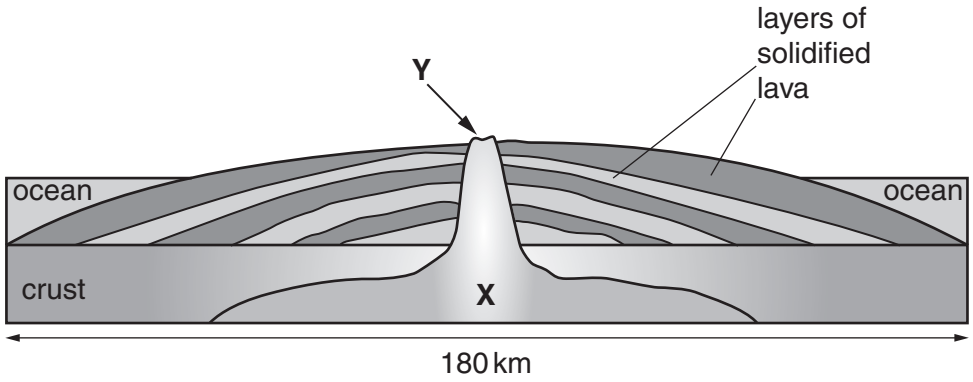

Fig. 4

(i) What type of volcano is shown in Fig. 4?

.....[1]

(ii) Identify the features labelled **X** and **Y** on Fig. 4.

X .....

Y ..... [2]

(iii) Describe **three** ways in which a strato-volcano (composite cone) would differ from the volcano shown in Fig. 4.

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2 .....

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3 .....

.....[3]

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(iv) Describe the distribution of volcanoes in the world.

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(b) Study Fig. 5, which shows information about the impacts of an earthquake that occurred in Nepal (an LEDC) on 25th April 2015.

The earthquake in Nepal, one of Asia's poorest countries, killed more than 9000 people and injured more than 23000.

The earthquake triggered an avalanche on Mount Everest, killing at least 19 people. Another huge avalanche occurred in the Langtang valley, where 250 people were reported missing.

Hundreds of thousands of people were made homeless with entire villages flattened, across many districts of the country. Centuries-old buildings were destroyed at tourist sites in the Kathmandu Valley, including temples, pagodas and historic towers. Workplaces were destroyed and many workers were not able to go to work, either because they were earthquake casualties or because they were dealing with its after effects. Many farmers affected by the earthquake were not able to plant their crops before the start of the rainy season.

Soldiers from the Nepalese Army were sent to the areas with the worst damage immediately after the earthquake. Heavy rainfall and landslides made rescue difficult and impassable roads, damaged communications and power networks also made it difficult to reach isolated areas. The Tribhuvan International Airport, serving Kathmandu, was closed immediately to commercial flights after the earthquake.

Fig. 5

(i) Identify **one** impact of the earthquake in Nepal on each of the following:

the natural environment; .....

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the infrastructure; .....

.....

the economy. .....

.....[3]

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(ii) Explain what can be done to reduce the impacts of earthquakes on local people.

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

Name of area .....

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[Total: 25 marks]

END OF QUESTION 3

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QUESTION 4

4 **(a)** Study Fig. 6, which shows a storm hydrograph.

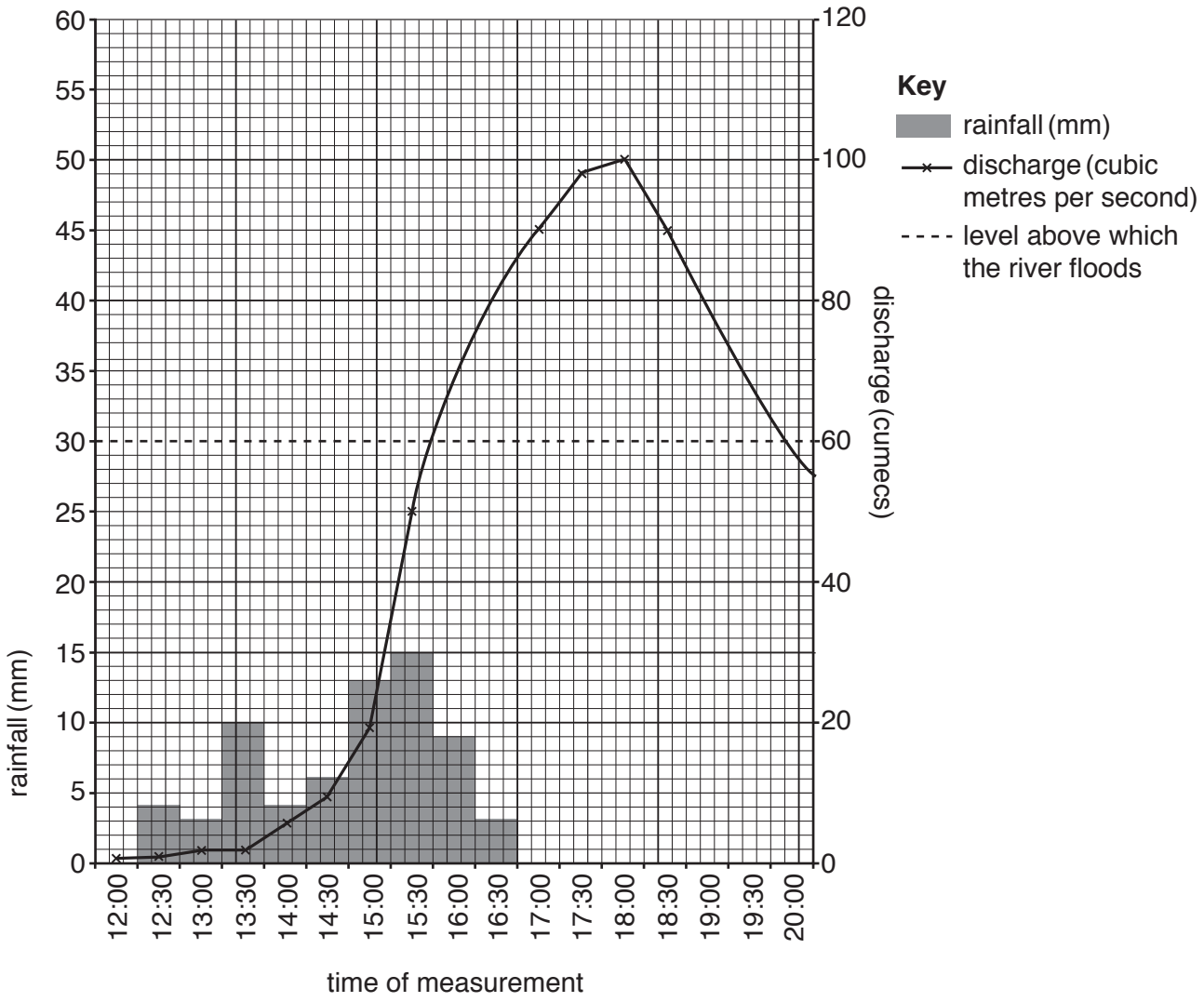

Fig. 6

(i) River discharge is the amount of water flowing in a river.

Tick the **one** formula in the table below which shows how river discharge is calculated.

width × depth × speed of flow	
precipitation × volume of river	
speed of flow × amount of erosion	
groundwater flow × overland flow	

[1]

(ii) Identify from Fig. 6:

- the maximum rainfall during 30 minutes; ..... mm
- the time when the river was most likely to start flooding. ..... [2]

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(iii) Explain why rivers sometimes continue to flood for many hours after the end of a period of heavy rain.

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.....[3]

(iv) Explain why an increase in discharge of a river will influence the amount of erosion and transportation taking place.

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.....[4]

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(b) Study Fig. 7, which shows information about drainage basins in Oregon, USA (an MEDC).

Drainage Basin Protection Sought

Water agencies in Washington and Clackamas counties say they want more protection for their drainage basins from deforestation, especially the areas alongside rivers and close to watersheds.
The Bull Run drainage basin is completely protected from deforestation, but in other areas west of the Cascade Mountains, especially around the Clackamas river and its tributaries, many areas of forest have been cleared. This has devastated the natural environment and even residents of distant urban areas further downstream are facing increased problems as a result of deforestation.

Fig. 7

(i) What is meant by the following terms:

drainage basin; .....

.....

watershed; .....

.....

tributary? .....

.....[3]

(ii) Describe the problems for people and the natural environment in Oregon which may be caused by increased deforestation.

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(c) Describe the opportunities of living near a named river you have studied.

Name of river .....

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[Total: 25 marks]

END OF QUESTION 4

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Section C

Answer **one** question from this section.

QUESTION 5

5 (a) Study Fig. 8, which shows information about the GNP per person and percentage of GNP from commercial farming in a number of countries.

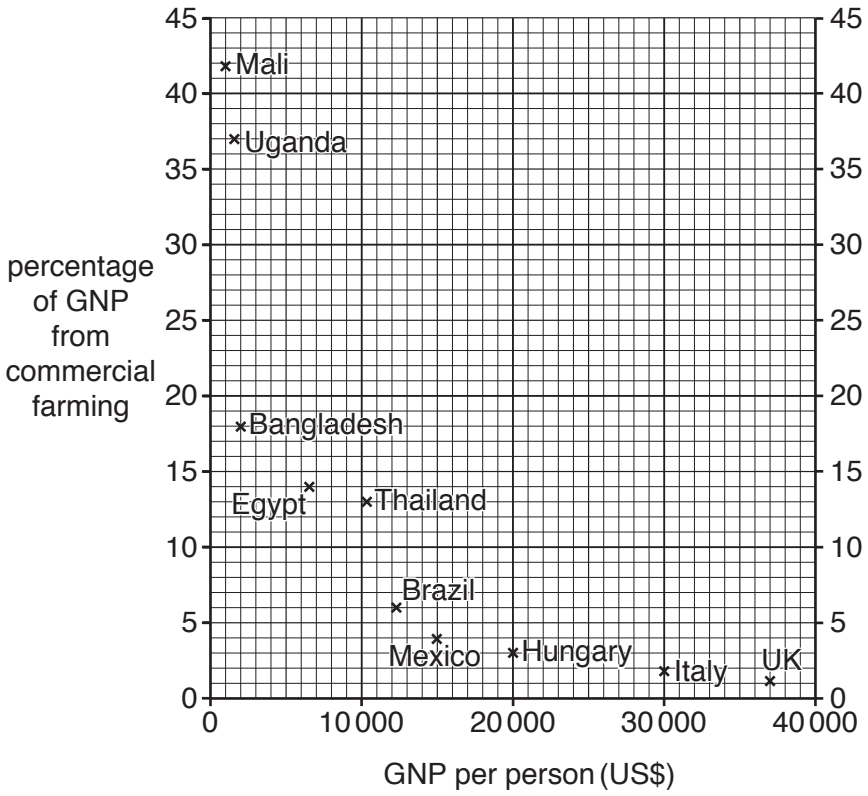

Fig. 8

(i) Name a type of commercial farming.

.....[1]

(ii) Using Fig. 8 **only**, describe the relationship between GNP per person and the percentage of GNP from commercial farming.

You should include data from Fig. 8 in your answer.

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.....[2]

(iii) Explain how the natural environment (climate, relief and soil) influences agricultural land use.

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.....[3]

(iv) Explain how farming can cause soil erosion.

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(b) Study Fig. 9, which shows information about an impact of food shortages in two regions over four time periods.

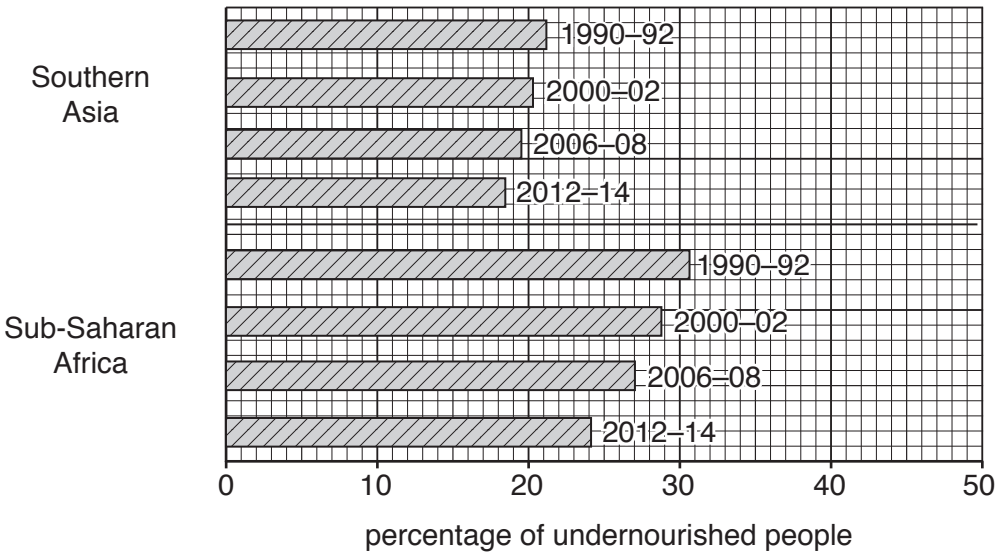

Fig. 9

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(i) Use information from Fig. 9 **only** to compare the percentage of undernourished people in Southern Asia with the percentage in Sub-Saharan Africa.

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.....[3]

(ii) Explain how different strategies can be used in the short-term **and** long-term to provide solutions to the problem of food shortages in LEDCs.

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(c) For a named farm or agricultural area you have studied, describe the farming system.

Name of farm or agricultural area .....

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[Total: 25 marks]

END OF QUESTION 5

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QUESTION 6

6 (a) Study Photograph D (Insert), which shows an industry.

(i) In which sector of industry are the buildings shown in Photograph D?

Choose from the words below and circle your answer.

Primary Secondary Tertiary Quaternary [1]

(ii) Describe **two** characteristics of the industrial buildings labelled **X** in Photograph D.

1 .....

2 .....[2]

(iii) Explain how political factors influence the location of industry.

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.....[3]

(iv) State and explain **two** other factors which are likely to influence the location of industry.

1 .....

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2 .....

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[4]

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(b) Study Fig. 10, which is information about copper mining and smelting (processing) in Zambia.

Glencore, a transnational company which employs 50 000 people in 30 countries, including Zambia, controls most of the world copper production.

In the small mining town of Mufulira in Zambia people still struggle to live on a few dollars a day. This is not enough to feed their families and they cannot afford to buy medicines to treat those suffering from the effects of air and water pollution from the copper mines and smelters which give off sulfur dioxide. Acid used in the smelting process has contaminated drinking water supplies, clouds of sulfur make it difficult to breathe and acid rain kills crops and damages buildings.

Fig. 10

(i) Identify **three** problems which copper smelting causes for the people who live in Mufulira.

1 .....

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2 .....

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3 .....

.....[3]

(ii) Suggest reasons why some governments may not want to solve the problems caused by the smelting of copper and other metals.

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.....[5]

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(c) Another economic activity is tourism.
For a named example of an area you have studied, explain why the physical and human landscapes attract tourists.

Name of area .....

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Additional Pages

If you use the following lined pages to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

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