X208/12/01

GEOGRAPHY

HIGHER
Paper 1
Physical and
Human Environments

Six questions should be attempted, namely:

all four questions in **Section A** (Questions 1, 2, 3 and 4);

one question from **Section B** (Question 5 **or** Question 6);

one question from **Section C** (Question 7 **or** Question 8).

Write the numbers of the **six** questions you have attempted in the marks grid on the back cover of your answer booklet.

The value attached to each question is shown in the margin.

Credit will be given for appropriate maps and diagrams, and for reference to named examples.

Questions should be answered in sentences.

Note The reference maps and diagrams in this paper have been printed in black only: no other colours have been used.

SQA
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SECTION A: Answer ALL four questions from this section.

Question 1: Lithosphere

Study Diagram Q1 which shows a typical surface landscape and cave system in the Yorkshire Dales, an area with Carboniferous Limestone features.

(*a*) Select **one** surface and **one** underground feature from the lists below.

Describe and **explain** the formation of both features. You may use an annotated diagram or diagrams in your answer.
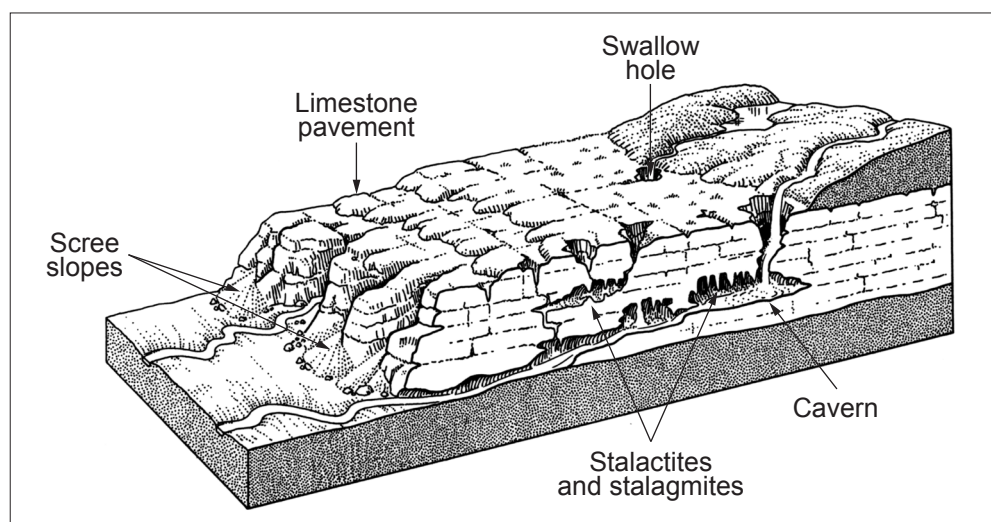
Surface Features	Underground Features
Limestone pavement	Stalactites and stalagmites
Swallow hole	Cave/Cavern

12

(*b*) Scree slopes are often found at the bottom of cliffs or scars typical of Carboniferous Limestone landscapes. **Explain** the processes involved in their formation.

6

Diagram Q1: A Typical Carboniferous Landscape

Question 2: Atmosphere

(*a*)   Study Diagram Q2A and Q2B.

Describe and **explain** why the Earth's surface absorbs only 50% of the solar energy received at the edge of the atmosphere. You should refer to both conditions in the Earth's atmosphere and at the Earth's surface.   **8**
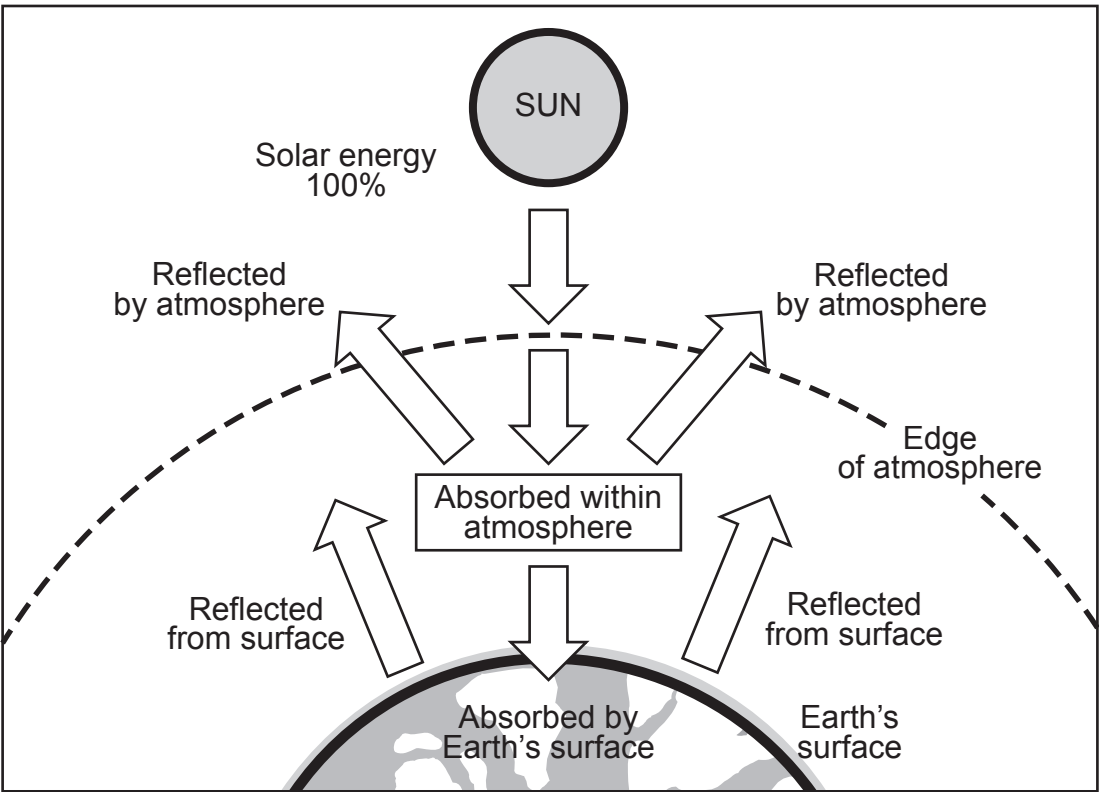
(*b*)   There has been an increase in the average global temperature in the last 150 years.
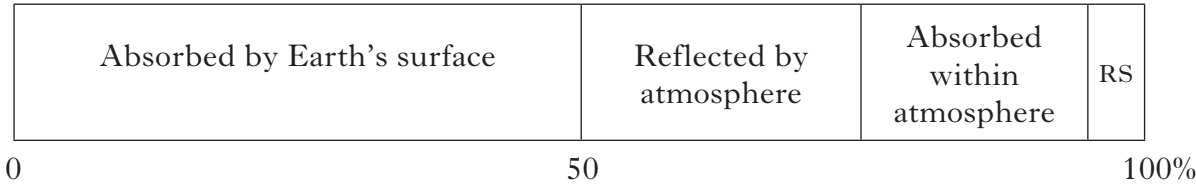
Describe and **explain** the **human** factors affecting global warming.   **10**

Diagram Q2A: Earth/Atmosphere Energy Exchange

Diagram Q2B: Proportion of solar energy absorbed/reflected

Absorbed by Earth's surface	Reflected by atmosphere	Absorbed within atmosphere	RS

0   50   100%

RS = Reflected from surface

[Turn over

Question 3: Urban

(*a*)   Study OS Map Extract number 2006/OL20: Plymouth (*separate item*), **and** Map Q3.

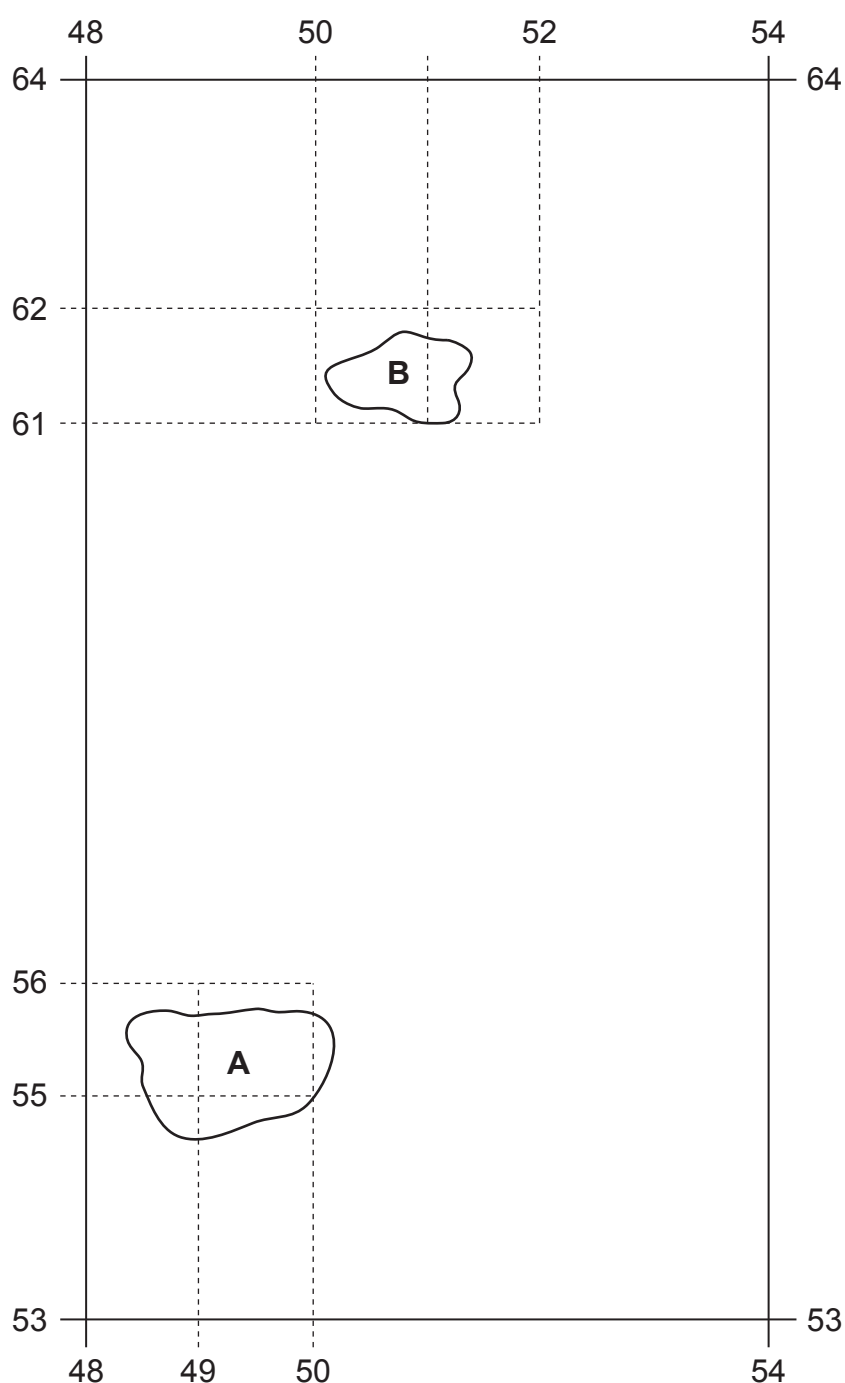Using map evidence, **describe** the residential environments of Area A and Area B.
Suggest reasons for the differences.   **12**

(*b*)   **Suggest** the **impact** that an out of town shopping centre may have had on the traditional Central Business District (CBD) of Plymouth or any other named city you have studied in a developed country.   **6**

Map Q3 : Location of residential areas in Plymouth
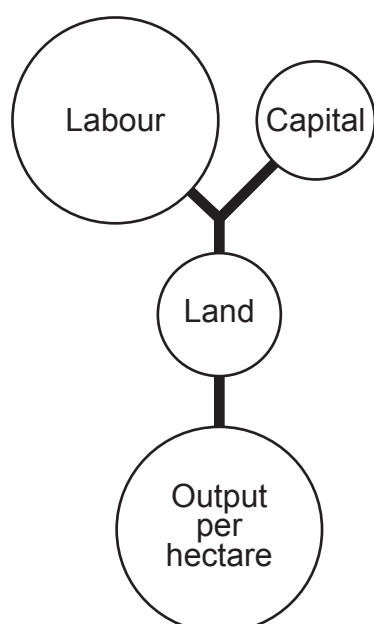
Question 4: Rural

Study Diagram Q4.

Choose **one** of these farming systems.

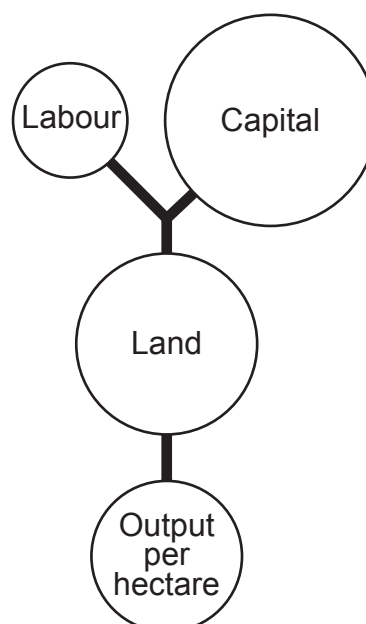Referring to a named area where your chosen system is carried out:

 (i) **explain** the ways in which the diagram reflects the main features of your chosen
      system;   **8**

(ii) **describe** the recent changes in farming practices that have taken place and
      discuss the impact of these changes on the people and their environment.   **10**

Diagram Q4: Farming systems

Intensive Peasant Farming   **Commercial Arable Farming**

[Turn over

SECTION B: Answer ONE question from this section, ie either Question 5 or Question 6.

Question 5: Hydrosphere

Study OS Map Extract number 2006/OL20: Plymouth (*separate item*).

(*a*)   Using appropriate grid references, **describe** the **physical** characteristics of the River Plym **and** its valley from Bickleigh Bridge (GR 527618) to Laira Bridge (GR 501542).   **8**

(*b*)   **Explain**, with the aid of an annotated diagram or diagrams, how a meander is formed.   **6**

**DO NOT ANSWER THIS QUESTION IF YOU HAVE
ALREADY ANSWERED QUESTION 5**

Question 6: Biosphere

(*a*)   Study Diagram Q6 which shows a coastal sand dune area.
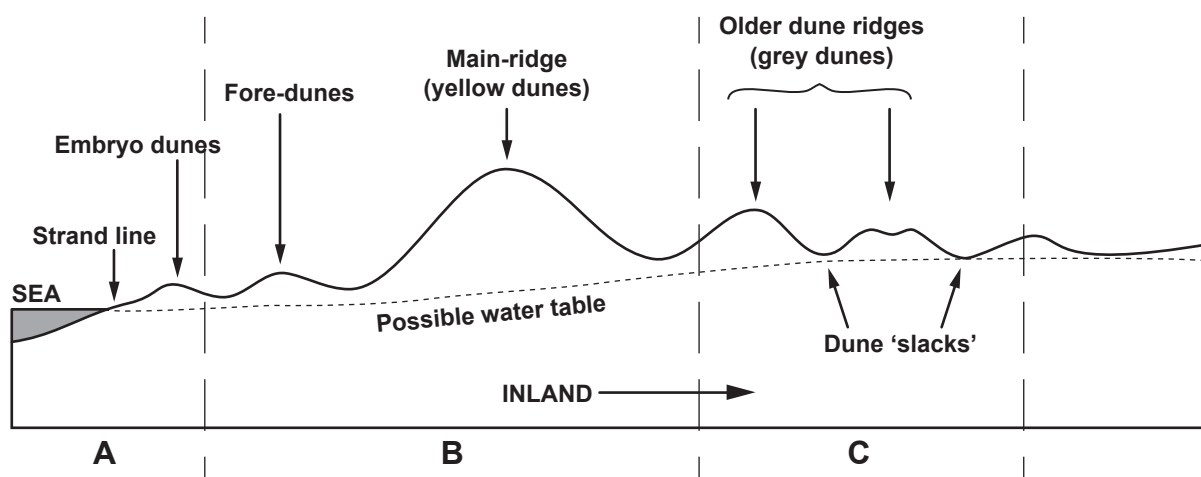
   Describe and **give reasons** for the plant types likely to be present at **one** of the
   locations A, B **or** C. Named plant species should be included.   **6**

(*b*)   **Draw** and **fully annotate** a soil profile of a **brown earth** soil to show its main
   characteristics (including horizons, colour, texture, soil biota and drainage) and
   associated vegetation.   **8**

Diagram Q6: Transect across sand dune coastline

[Turn over

**SECTION C: Answer ONE question from this section,
ie either Question 7 or Question 8.**

Question 7: Population

Study Diagram Q7A

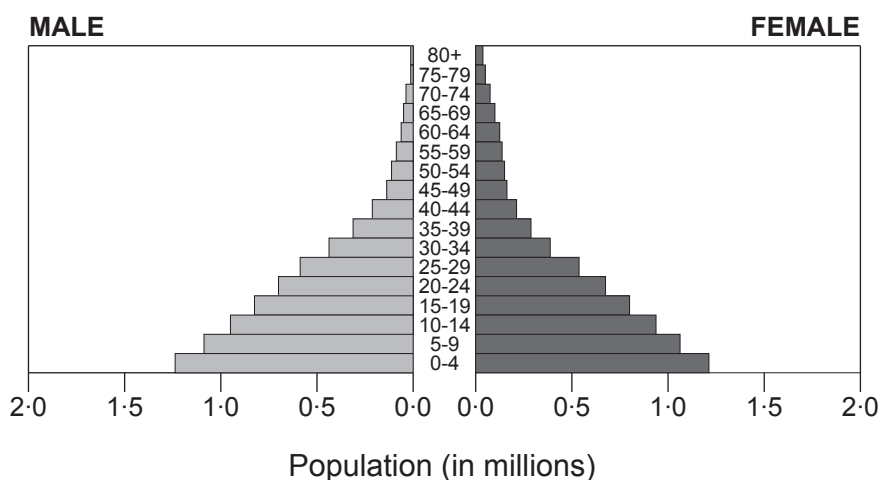(*a*) **Describe** and **explain** the population structure of Malawi in 2010.   **8**

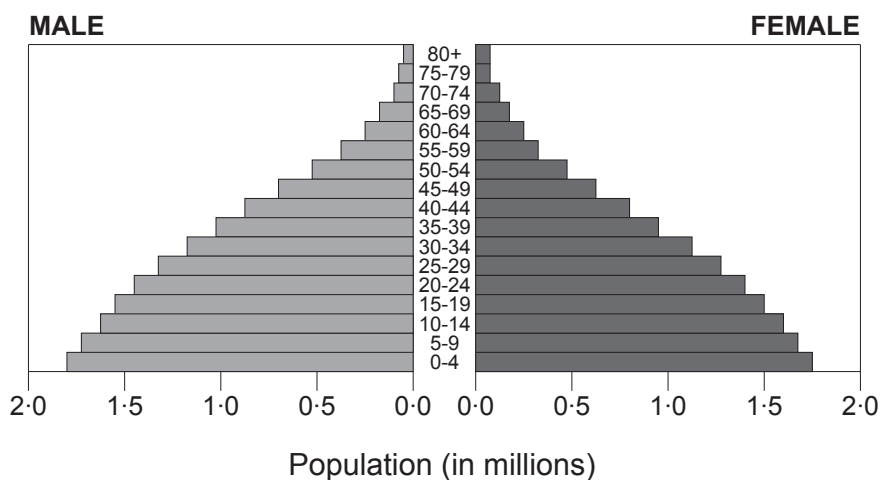Study Diagram Q7B.

(*b*) **Discuss** the possible consequences of the 2050 population structure for the future
economy of Malawi and the welfare of its citizens.   **6**

Diagram Q7A: Population Pyramid for Malawi, 2010

Diagram Q7B: Projected Population Pyramid for Malawi, 2050

**DO NOT ANSWER THIS QUESTION IF YOU HAVE
ALREADY ANSWERED QUESTION 7**

Question 8: Industrial Geography

Study photographs Q8A, Q8B and Q8C.

"New" industry is often located in industrial estates, business parks and science parks.

Referring to a **named** industrial concentration in the European Union that you have studied:

(i) **describe** and **explain** the main characteristics of a typical new industrial landscape; **7**

(ii) **describe** ways in which the European Union **and** national governments have helped to attract new industries to your chosen area. **7**

Photograph Q8A   **Photograph Q8B**

Photograph Q8C

[END OF QUESTION PAPER]

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X208/12/02

NATIONAL	THURSDAY, 30 MAY	GEOGRAPHY
QUALIFICATIONS	10.50 AM – 12.05 PM	HIGHER
2013		Paper 2
		Environmental
		Interactions

Answer any **two** questions.

Write the numbers of the **two** questions you have attempted in the marks grid on the back cover of your answer booklet.

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Questions should be answered in sentences.

Note   The reference maps and diagrams in this paper have been printed in black only: no other colours have been used.

Question 1: Rural Land Resources

(*a*) **Describe** and **explain**, with the aid of annotated diagrams, the formation of the main features of glaciation in the Cairngorms National Park or any other glaciated upland area you have studied. **20**

(*b*) Study Diagram Q1.

With reference to the Cairngorms National Park or any other upland area you have studied, explain the social **and** economic opportunities created by the landscape. **8**

(*c*) Referring to named examples within the Cairngorms or any other upland or coastal area you have studied:

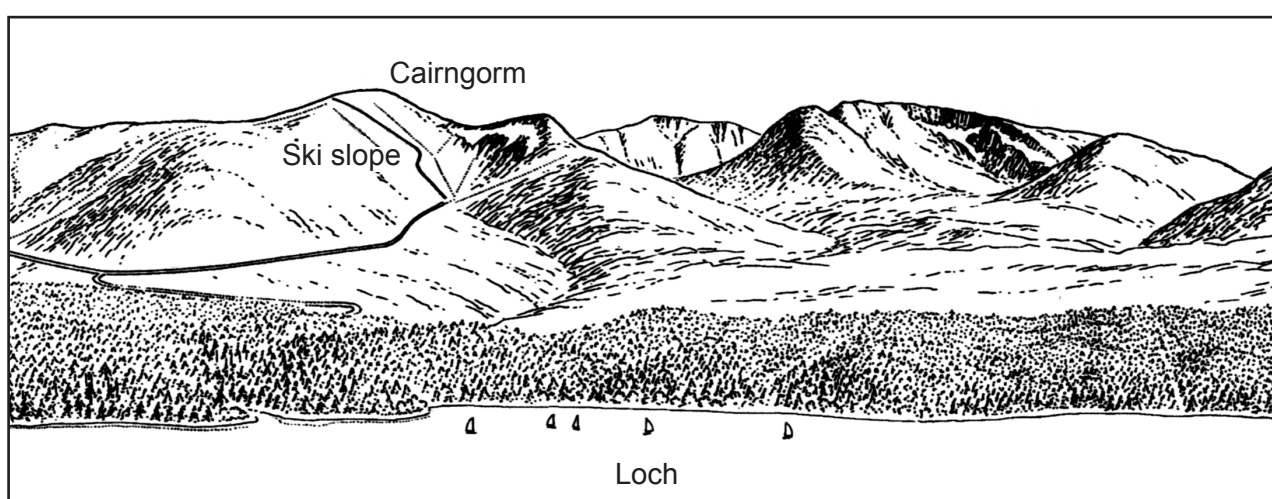 (i) **describe** and **explain** the environmental conflicts that have occurred; **11**

  (ii) **describe** the solutions to these environmental conflicts commenting on their effectiveness. **11**

  (50)

Diagram Q1: The Cairngorms Mountain Range
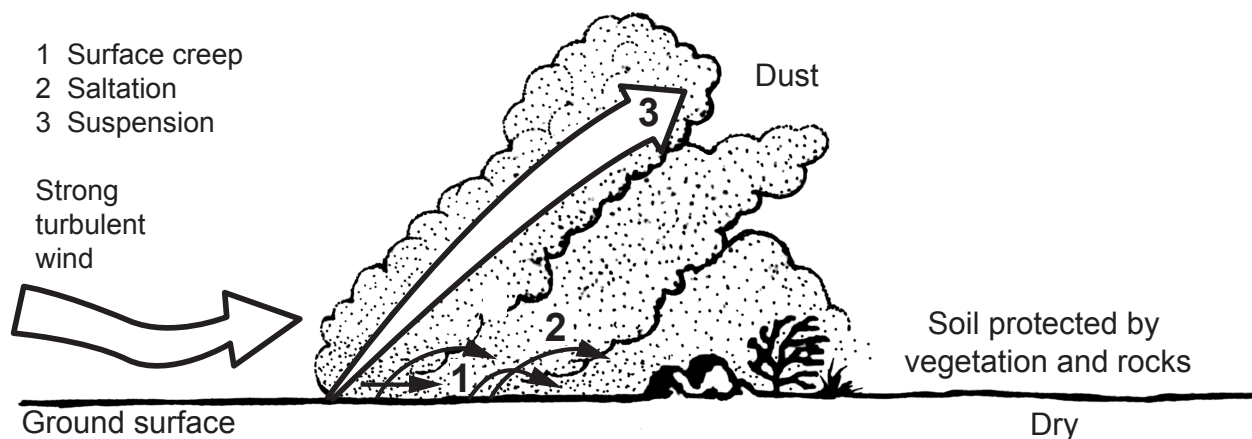
Question 2: Rural Land Degradation

(*a*)   Study Diagram Q2.

   Describe and **explain** the processes of soil erosion by wind.   **6**

Diagram Q2: Selected processes of wind erosion

(*b*)   **Describe** and **explain** how human activities, including inappropriate farming techniques, have caused land degradation in North America.   **14**

(*c*)   Referring to named locations in **either** Africa north of the Equator **or** the Amazon Basin, **describe** the impact of land degradation on the people, economy and the environment.   **10**

(*d*)   For named areas in North America **and** Africa north of the Equator **or** the Amazon Basin:

   (i) **describe** and **explain** soil conservation strategies that have reduced land degradation;

   (ii) **comment** on the effectiveness of these strategies.   **20**

                                                                                                (50)

                                                                                [Turn over

Question 3: River Basin Management

(*a*) Study Maps Q3A, Q3B and Q3C.

For North America, Africa or Asia, **describe** and **explain** the general distribution of river basins.   **9**

(*b*) "*The Mississippi river basin extends into 31 states of the USA as well as into southern Canada. It is the third largest river basin in the world*".

Study Maps Q3A, Q3D and Diagram Q3.

Describe and **explain** why there is a need for water management within the Mississippi River Basin.   **10**

(*c*) For the Mississippi River Basin or any other river basin management project in North America **or** Africa **or** Asia, **explain** the **political** problems that may have resulted from the project.   **7**

(*d*) **Describe** and **account for** the economic, environmental and social benefits **and** adverse consequences of a named water control project in Africa, Asia or North America.   **24**
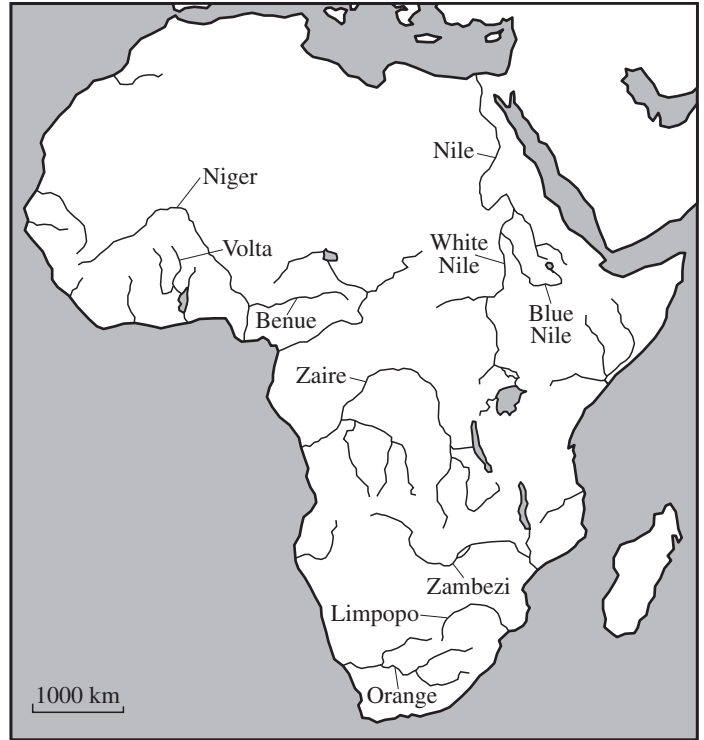
(50)

Map Q3A:
Major river basins of North America

Map Q3B:
Major river basins of Africa

Map Q3C: Major river basins of Asia
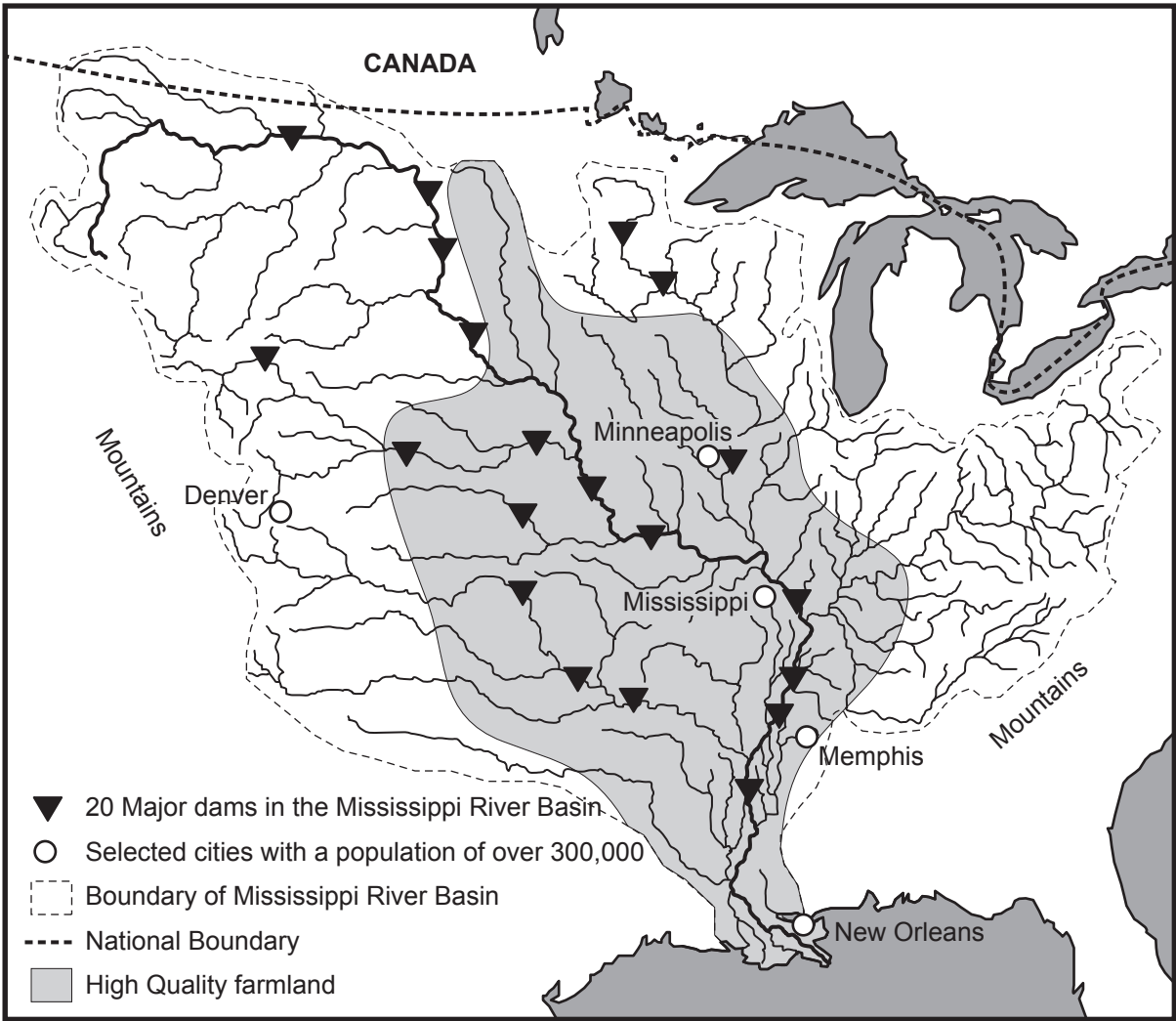
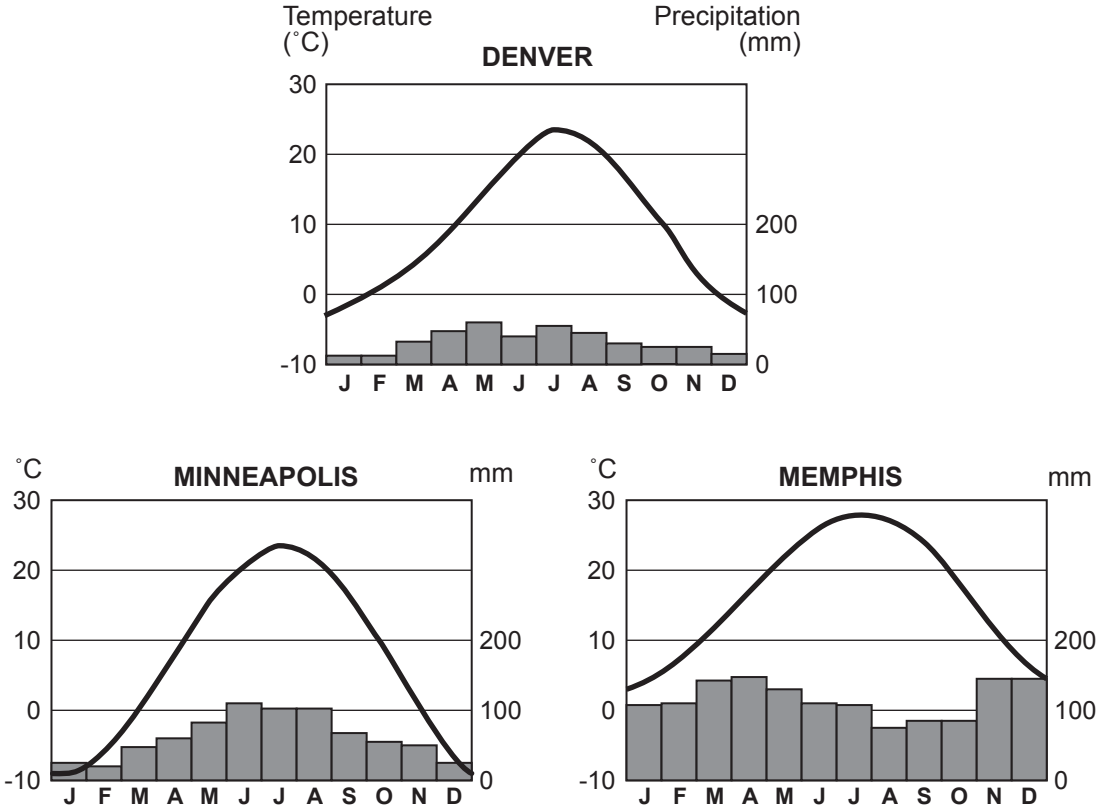**Map Q3D: Mississippi River Basin**

Diagram Q3: Climate Graphs

[Turn over for Question 4 on *Page eight*

Question 4: Urban Change and its Management

(*a*) Study Map Q4A.

Describe and **account** for the projected distribution of the world's largest urban areas. **14**

(*b*) Study Map Q4B.

Referring to Tokyo or any other named city that you have studied in the Developed World:

(i) **outline** the problems caused by urban sprawl.

(ii) **explain** the ways in which the city has tried to resolve this problem and **comment** on their effectiveness. **18**

(*c*) Study Diagram Q4.

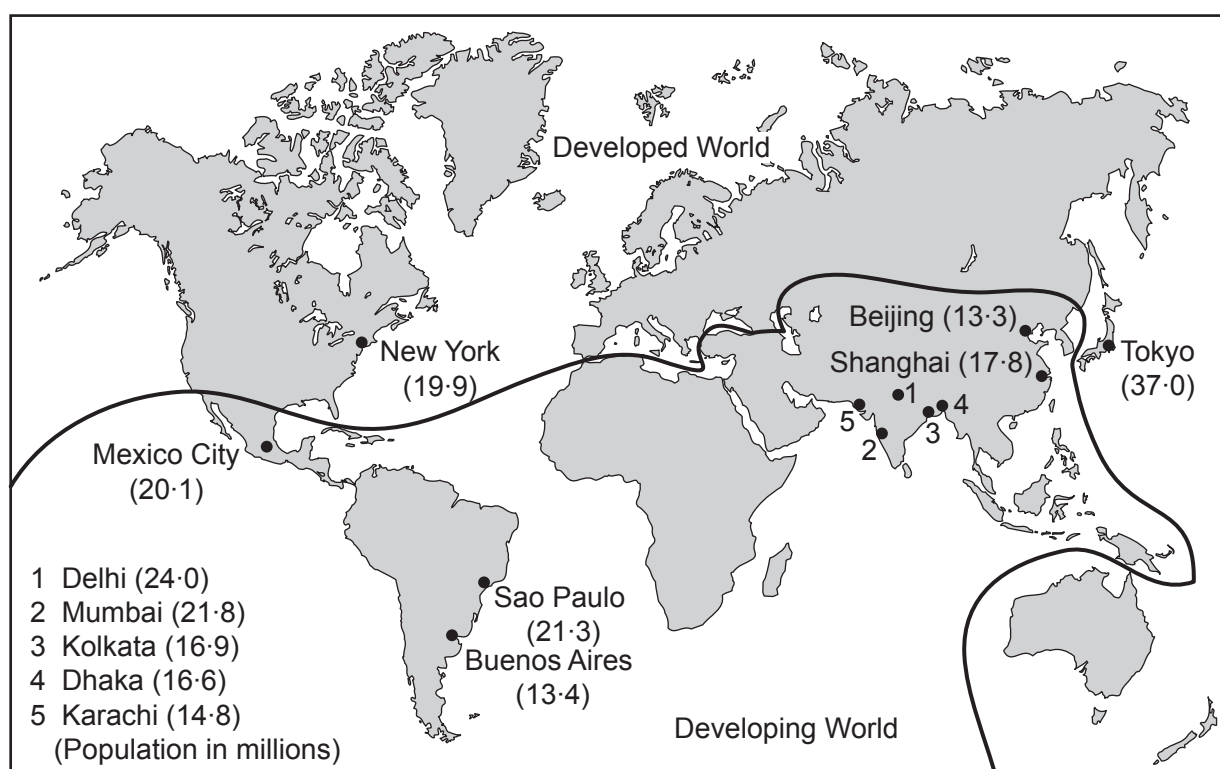With reference to a **named** city that you have studied in the Developing World:

(i) **describe** the social, economic and environmental problems found in shanty town areas; **12**

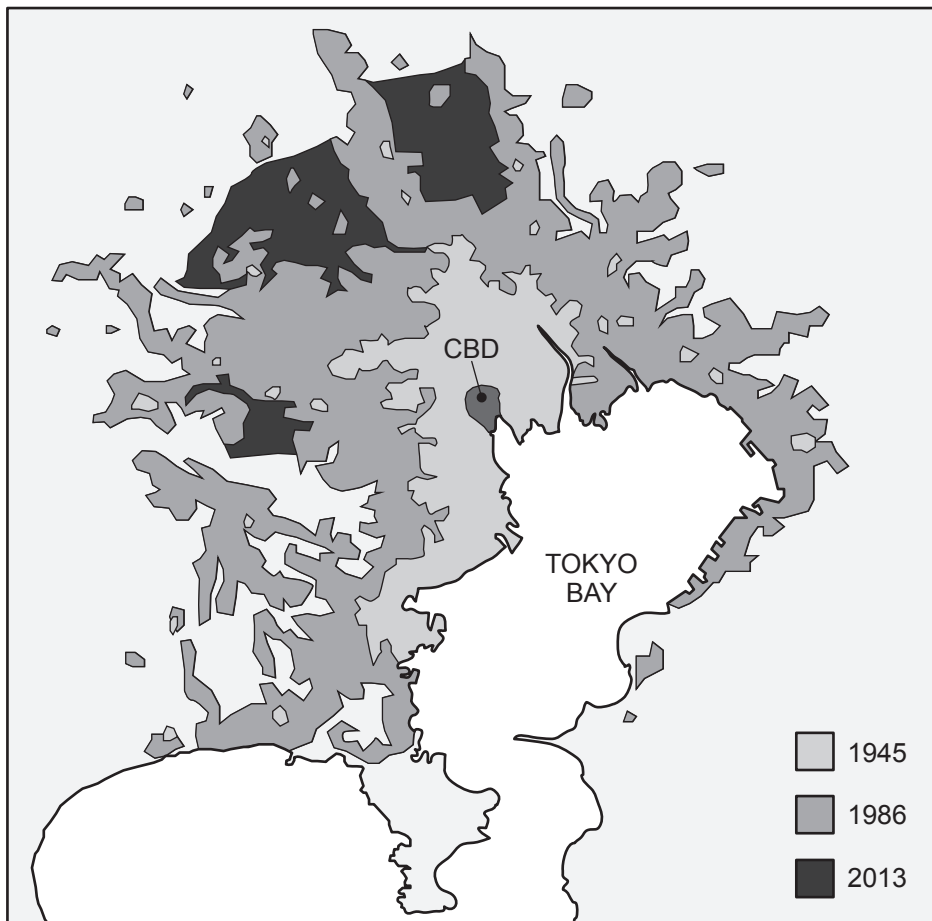(ii) **describe** the methods the residents and local authorities have used to tackle these problems. **6**

(50)

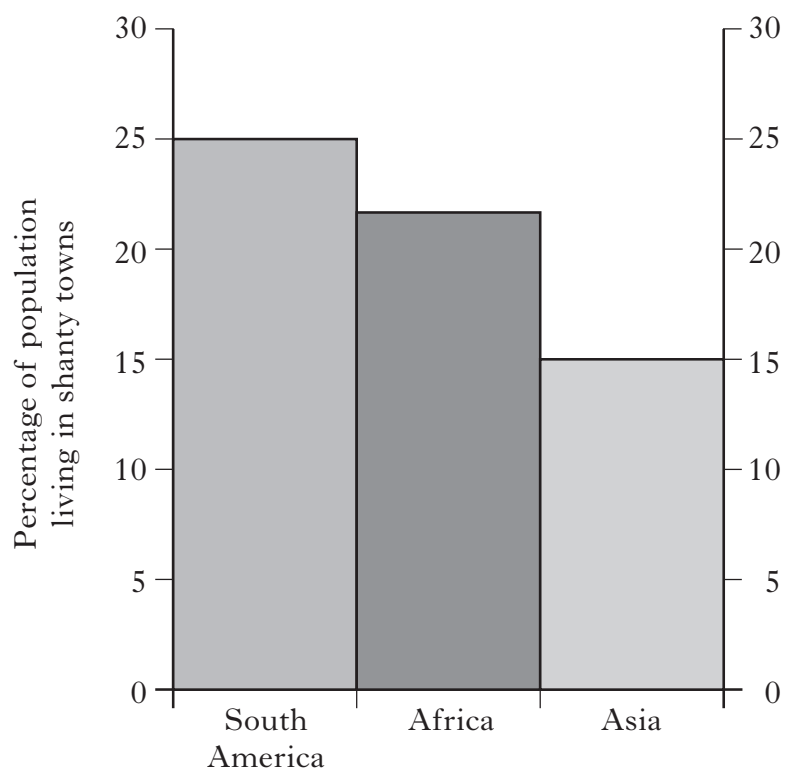**Map Q4A: Twelve largest urban areas in the world 2015 (projection)**

Map Q4B: Urban Growth of Tokyo 1945–2013

Diagram Q4: Shanty Town Population by Continent

Question 5: European Regional Inequalities

(*a*)   Study Table Q5A.

Turkey and FYR (Former Yugoslav Republic) Macedonia are among the countries which have applied to join the European Union. **Suggest reasons** why these countries may wish to become members of the European Union.   **12**

(*b*)   "*The North-South divide refers to the economic and cultural differences between southern England and the rest of the United Kingdom.*"

Study Map Q5 and Table Q5B.

To what extent does the data provide evidence of regional inequalities within the UK?   **12**

(*c*)   **Describe** and **explain** the physical and human factors that have led to regional inequalities within the UK or any other country of the European Union which has marked differences in economic development between regions.   **15**

(*d*)   For your chosen country in part (*c*), **discuss** the ways in which the National Government has tried to tackle problems in less prosperous regions and **comment** on the effectiveness of these strategies.   **11**

(50)

Table Q5A: Socio-economic indicators for selected current and prospective members of the European Union

Country	Year of joining EU	GDP per capita 2010 (PPP*)	Industrial Sector (%) 2010			Unemployment (%) 2010
			Primary	Secondary	Tertiary	
Belgium	1957	37,800	2	25	73	8·5
UK	1973	34,800	2	18	80	7·9
Portugal	1986	23,200	12	20	68	10·7
Bulgaria	2007	13,500	6	30	64	9·2
FYR Macedonia	–	9,700	20	22	58	31·7
Turkey	–	12,300	29	25	46	12·4

PPP* = Purchasing Power Parity

Map Q5: UK statistical regions

Table Q5B: Selected indicators of development for UK regions

	Gross disposable household income 2010 (UK average = 100)	Average house prices 2011 × £1,000	Projected population change (%)	
			2009–2014	2009–2019
Scotland	94	146	0·4	0·6
Northern Ireland	85	144	3·1	4·9
Wales	87	146	2·1	4·4
NW England	91	151	2·3	5·0
NE England	85	143	1·1	2·4
West Midlands	92	167	2·5	5·3
Yorks & Humber	91	150	4·5	8·9
East Midlands	94	156	4·8	9·2
East England	107	196	4·5	9·0
SE England	115	273	4·1	9·4
London	120	437	5·5	9·9
SW England	99	223	4·7	8·0
UK average	**100**	**233**	**3·6**	**7·0**

Question 6: Development and Health

(*a*)   "Number of people per doctor" is an example of a social indicator of development.

   Name fully **two** other social indicators and **two** economic indicators which might identify different levels of development.   **8**

(*b*)   Using named examples, **suggest reasons** for the wide variations in development which exist **between** Developing Countries.   **12**

(*c*)   Study Map Q6.

   Malaria, cholera and bilharzia/schistosomiasis are water related diseases which remain the biggest causes of death in Developing Countries.

   Select **one** of the diseases above.

   (i)   **Describe** the physical **and** human factors which put people at risk of contracting the disease.   **8**

   (ii)   **Describe** the measures that can be taken to combat the disease and **explain** the varying effectiveness of these measures.   **17**
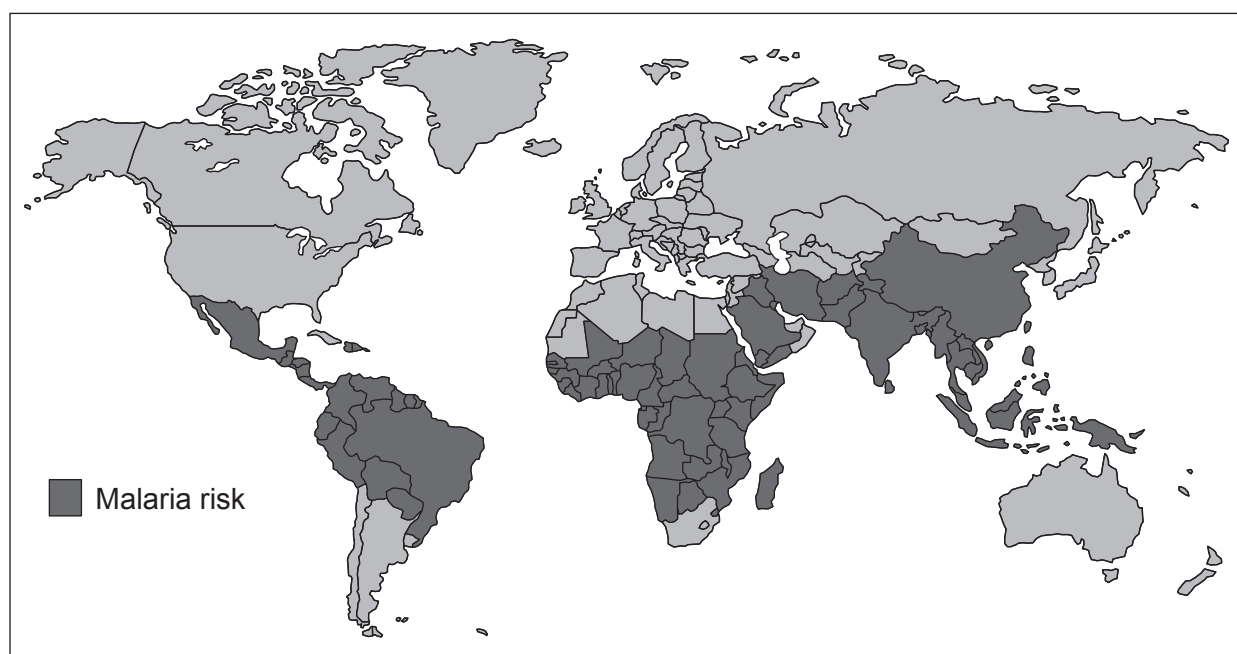
   (iii)   **Explain** the benefits to a Developing Country of controlling the disease.   **5**

   (50)

Map Q6: Countries affected by Malaria

[*END OF QUESTION PAPER*]