

Question 1: Atmosphere (continued)

Study Maps Q1A and Q1B and Diagram Q1.

Marks

(b) **Describe** and **explain** the variation in rainfall within West Africa.

12

Map Q1B: West Africa

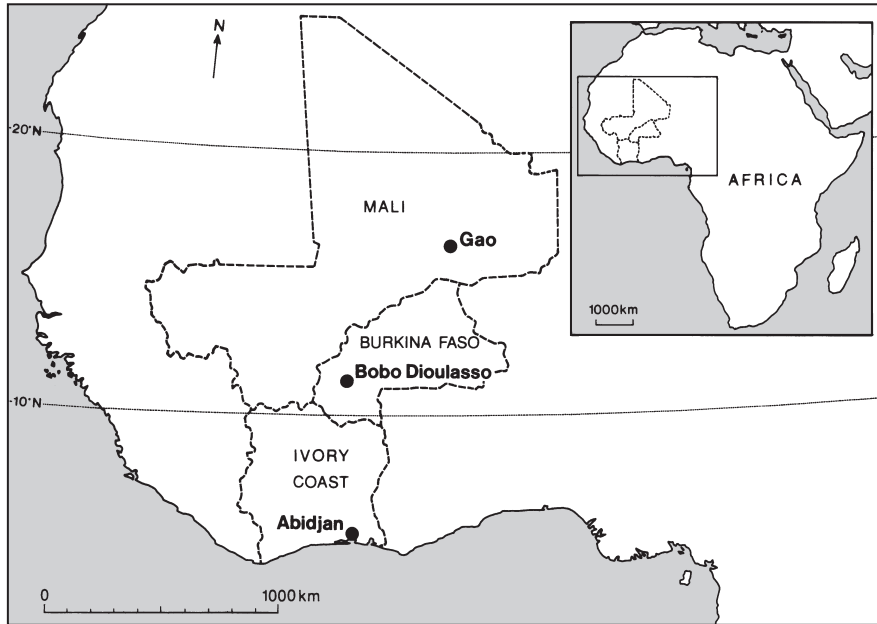
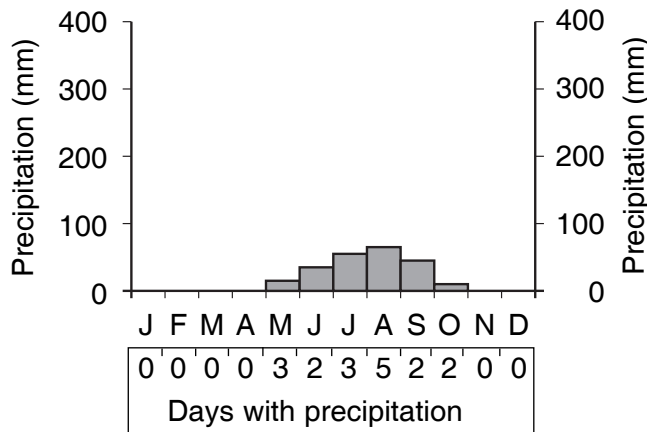
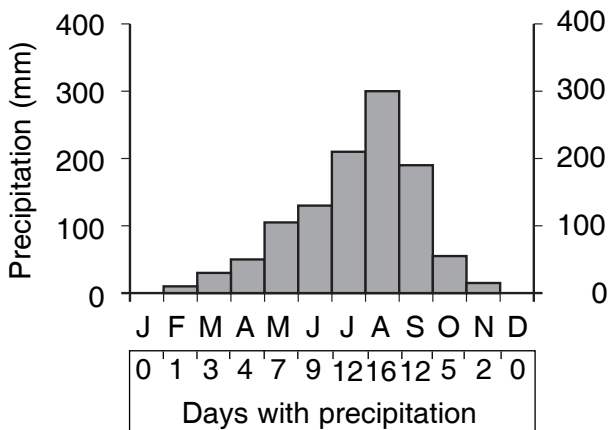


Diagram Q1: Average Monthly Rainfall/Days with Precipitation

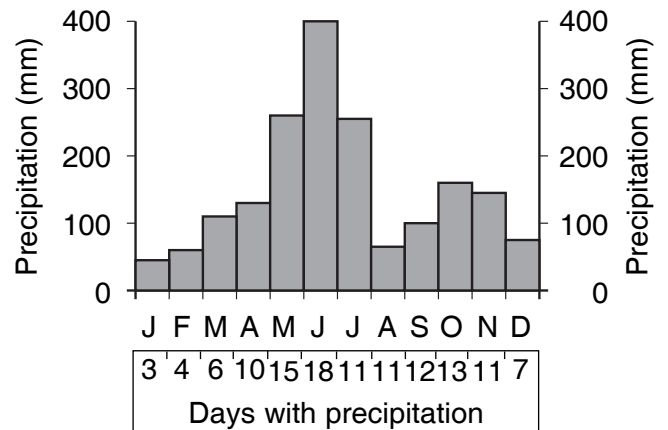
Gao: total precipitation—200 mm



Bobo-Dioulasso: total precipitation—1000 mm



Abidjan: total precipitation—1700 mm



Question 2: Biosphere

(a) **Explain** fully what is meant by the term climax vegetation.

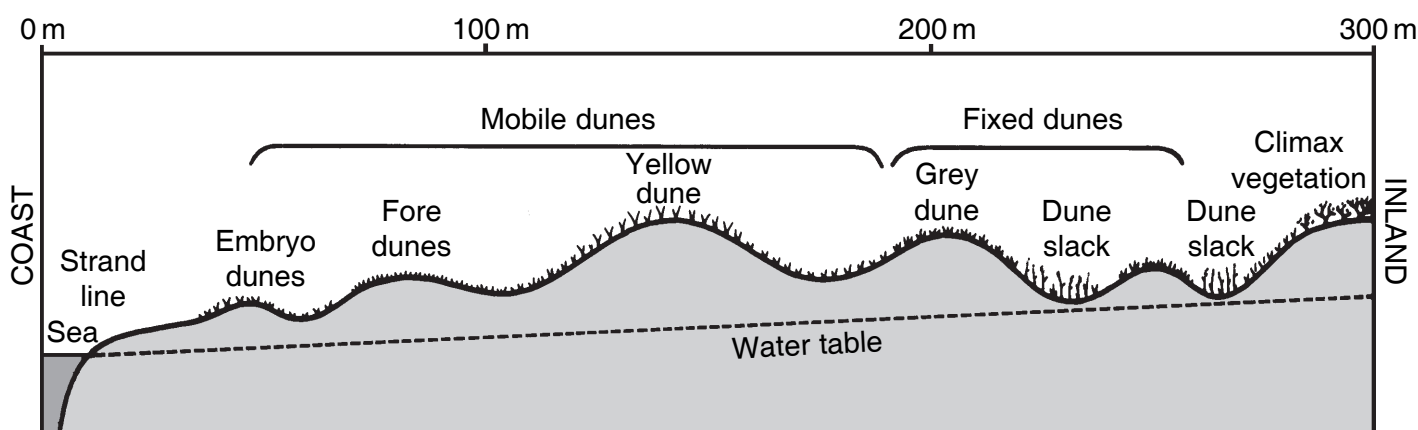
5

Study Diagram Q2.

(b) **Describe** and **give reasons** for the changes in plant types likely to be observed across the transect as you move inland from the coast. You should refer to named plant species in your answer.

13

Diagram Q2: Transect of Sand Dune System



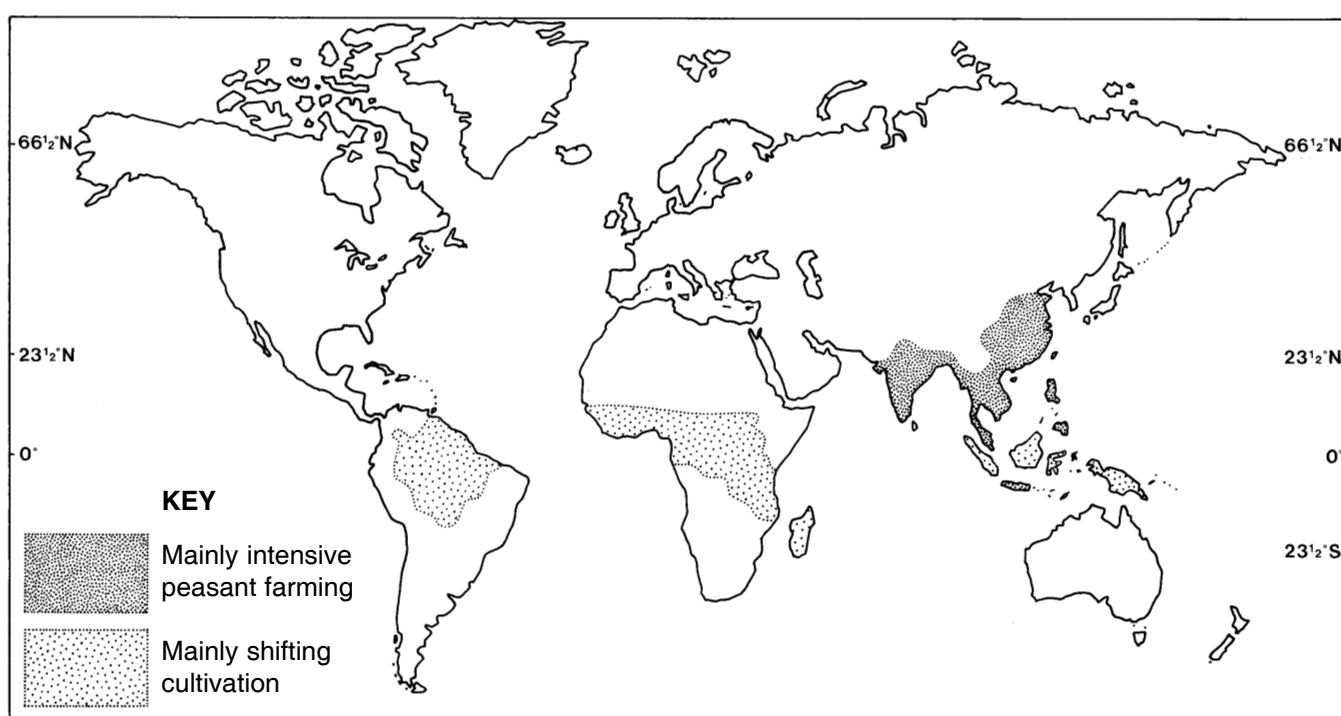
Question 3: Rural Geography

Study Map Q3.

Referring to a named area in **either** a shifting cultivation **or** an intensive peasant agricultural system:

- (i) **describe** and **explain** the main features of your chosen farming landscape; 8
- (ii) **describe** the recent changes that have taken place; **and**
discuss the impact of these changes on the people and their environment. 10

Map Q3: Generalised distribution of selected agricultural systems



[Turn over

Question 4: Industry

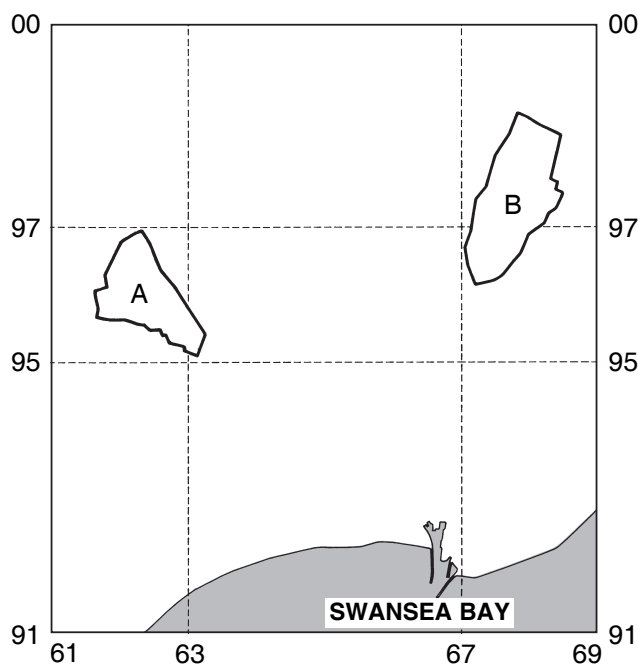
Study OS Map Extract number 1882/159: Swansea (*separate item*), and Maps Q4A and Q4B.

(a) Using map evidence, **describe** and **explain** the physical **and** human factors that have encouraged industry to locate in areas A and B. 10

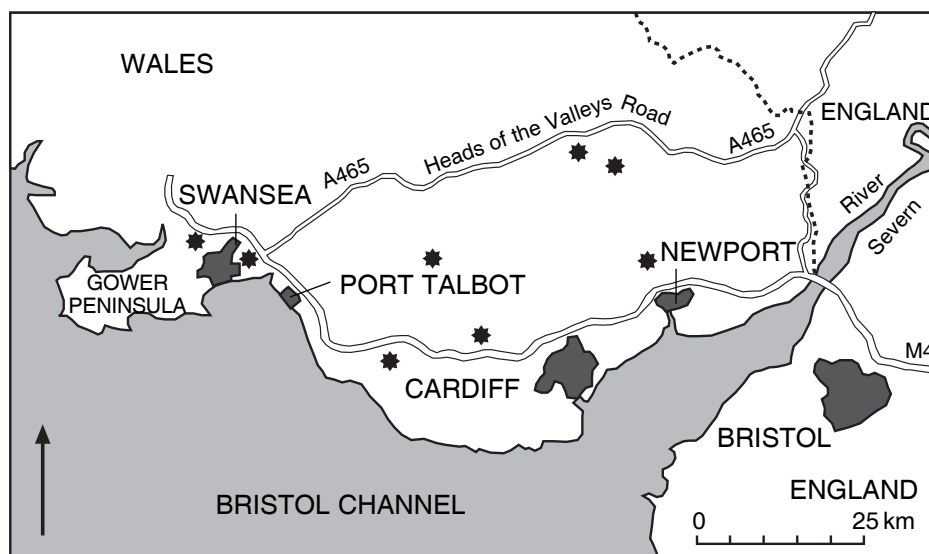
(b) Study Map Q4B.

Explain ways in which the European Union **and** national government can create industrial regeneration in South Wales, **or** any other named industrial concentration in the EU which you have studied. 8

Map Q4A: Location of industrial areas in Swansea



Map Q4B: South Wales—Location of new industrial developments



★ Location of industrial developments since 1950

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

Question 5: Lithosphere

Study OS Map Extract number 1882/159: Swansea (*separate item*).

(a) Using map evidence, **identify** the features of coastal erosion from GR 513851 (Oxwich Point) to GR 636871 (Mumbles Head).

6

(b) With the aid of annotated diagrams, **explain** the formation of **one** of the erosional features described in part (a).

8

[Turn over

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

Question 6: Hydrosphere

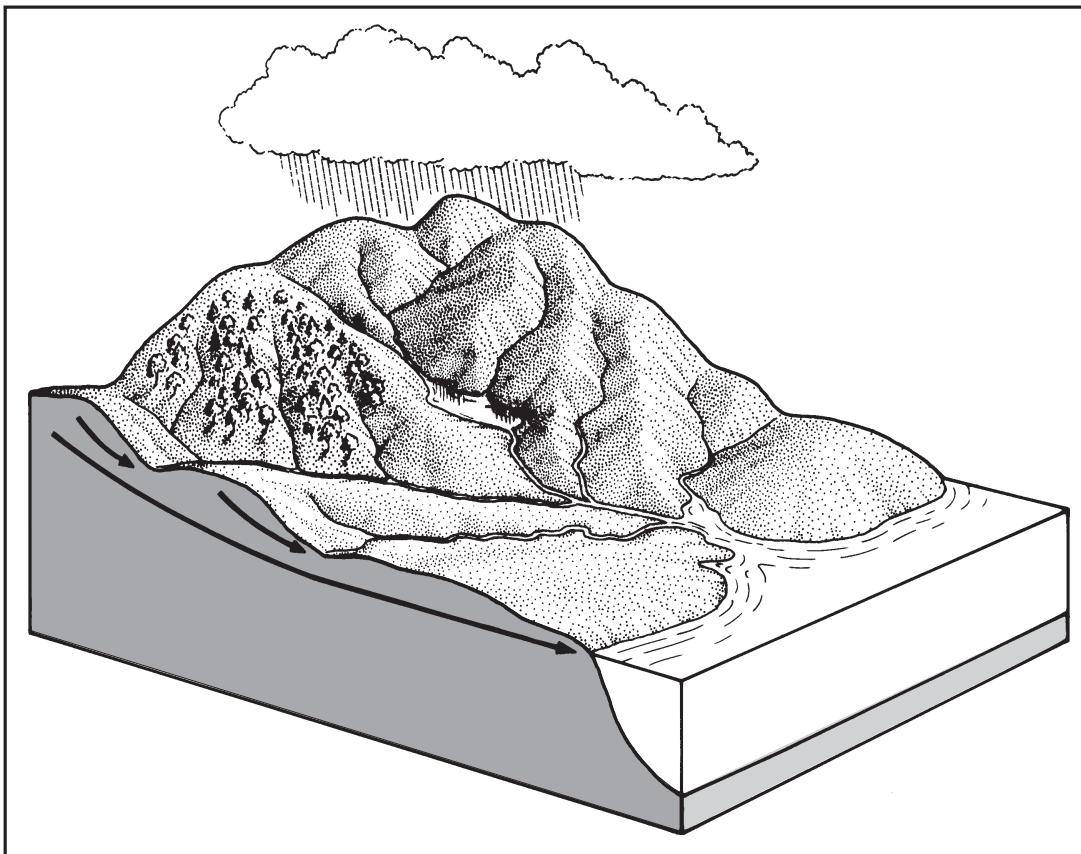
(a) Study Diagram Q6A.

*“A drainage basin is an open system with four elements—**inputs**, **storage**, **transfers** and **outputs**.”*

Describe the movement of water within a drainage basin with reference to the four elements above.

7

Diagram Q6A: A Drainage Basin

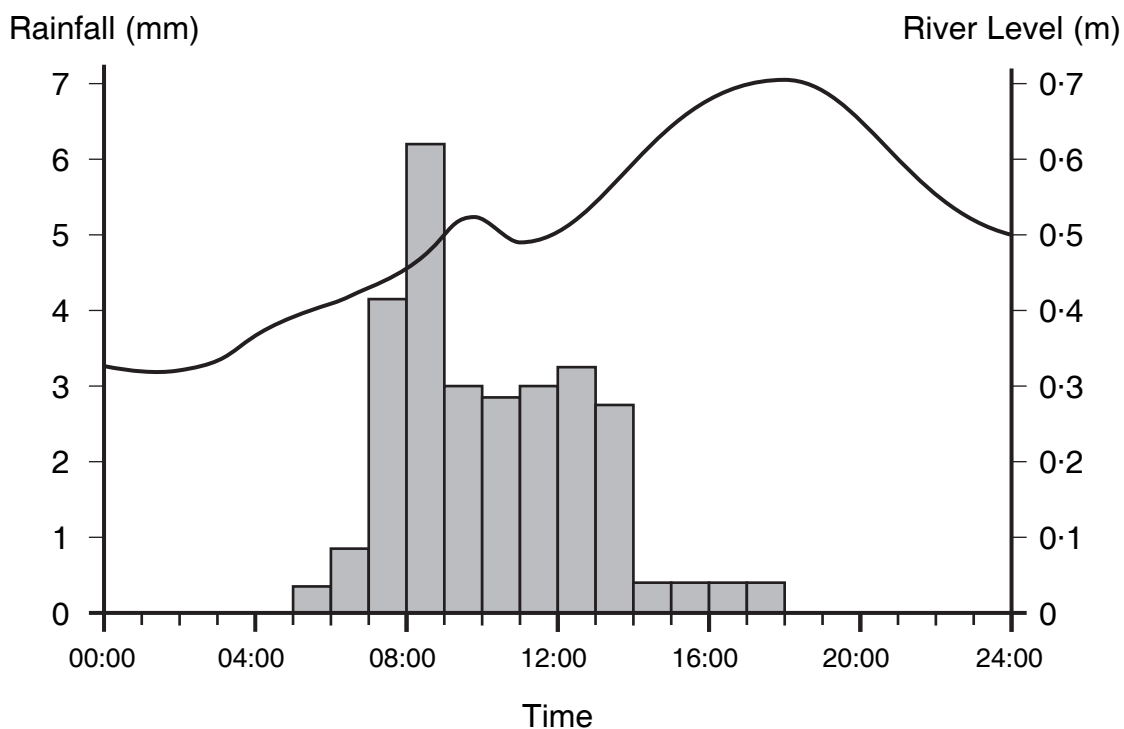


Question 6: Hydrosphere (continued)

(b) **Describe** and **explain** the changing river levels on the River Thaw at Cowbridge on 26 July 2007.

7

Diagram Q6B: Flood Hydrograph for the River Thaw at Cowbridge, 26 July 2007



Key
 — River level
 ■ Precipitation

[Turn over

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

Question 7: Urban Geography

- (a) For a named city which you have studied in the Developed World, **explain** the ways in which its site **and** situation contributed to its growth. **6**
- (b) With reference to any Developed World City you have studied, **describe** and **explain** the land use changes in recent years in **either** the Central Business District (CBD) **or** the inner city. **8**

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

Question 8: Population Geography

“Apart from 1941, during the Second World War, the UK has carried out a census every 10 years since 1801.”

- (a) **Describe** how the UK gathers population data **between** these censuses and **explain** why it is important for countries to obtain accurate population data. **5**
- (b) Giving named examples, **explain** why carrying out a census may be more difficult and the results less reliable in Developing Countries than in Developed Countries such as the UK. **9**

[END OF QUESTION PAPER]

[BLANK PAGE]

X208/303

NATIONAL
QUALIFICATIONS
2011

TUESDAY, 24 MAY
10.50 AM – 12.05 PM

GEOGRAPHY
HIGHER
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.

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.



Question 1 (Rural Land Resources)

(a) Study Map Q1A.

Describe and **explain**, with the aid of annotated diagrams, the formation of the main features of glacial erosion in the Lake District **or** any other glaciated upland area which you have studied.

18

(b) Study Diagram Q1.

With reference to the area around Coniston Valley, **or** any other upland area you have studied, **explain** the social and economic opportunities created by the landscape.

10

(c) Study Map Q1B.

The Lake District and Snowdonia are both areas of outstanding glaciated scenery. **Explain** why these two National Parks attract widely differing numbers of visitors.

6

(d) For the Lake District **or** any other upland **or** coastal area you have studied:

(i) **explain** the environmental conflicts that may occur due to an influx of visitors. (You should refer to specific named examples within your chosen area);

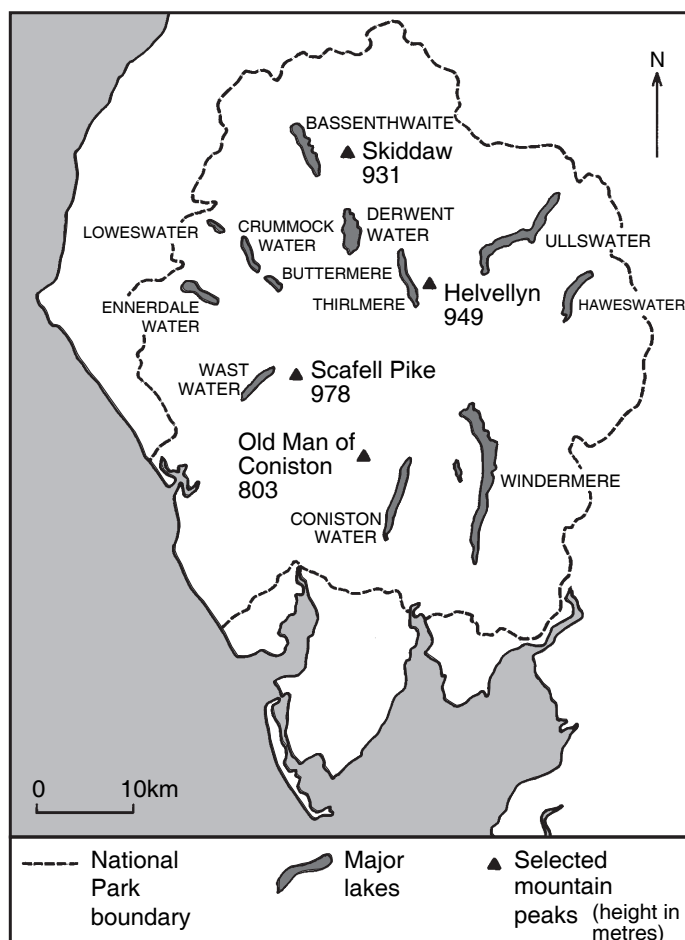
10

(ii) for **one** of the conflicts explained in part (i), **describe** the solutions to this conflict and comment on their effectiveness.

6

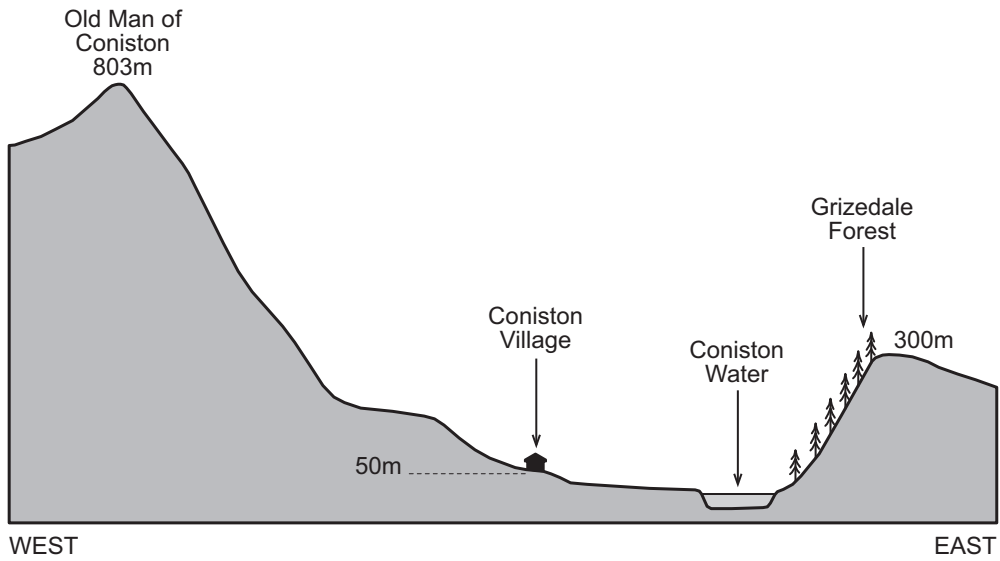
(50)

Map Q1A: The Lake District

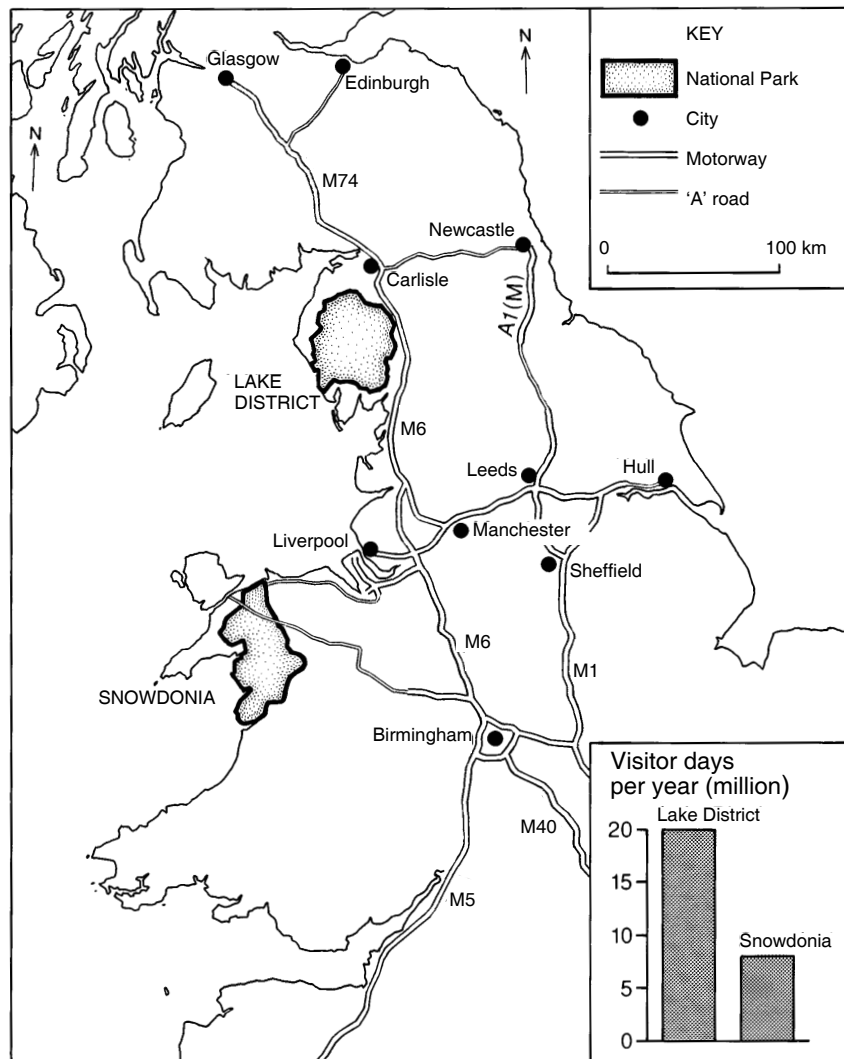


Question 1 – continued

Diagram Q1: Sketch Cross-section of the Coniston Valley in the Lake District



Map Q1B: Major Roads and Settlements around the Lake District and Snowdonia



Question 2 (Rural Land Degradation)

- (a) **Describe** the processes of water and wind erosion which lead to soil degradation. **12**
- (b) Study Map Q2 and Diagrams Q2A, Q2B and Q2C.
Describe and **explain** why the climate of Niger has led to severe land degradation. **8**
- (c) For **either** Africa north of the equator, **or** the Amazon Basin, **explain** how human activities including deforestation, overgrazing, overcultivation and any other inappropriate farming techniques have led to land degradation. **16**
- (d) For named areas of North America, **describe** and **explain** soil conservation strategies that have reduced land degradation. **14**
- (50)**

Question 2 – continued

Map Q2: Location of Niger

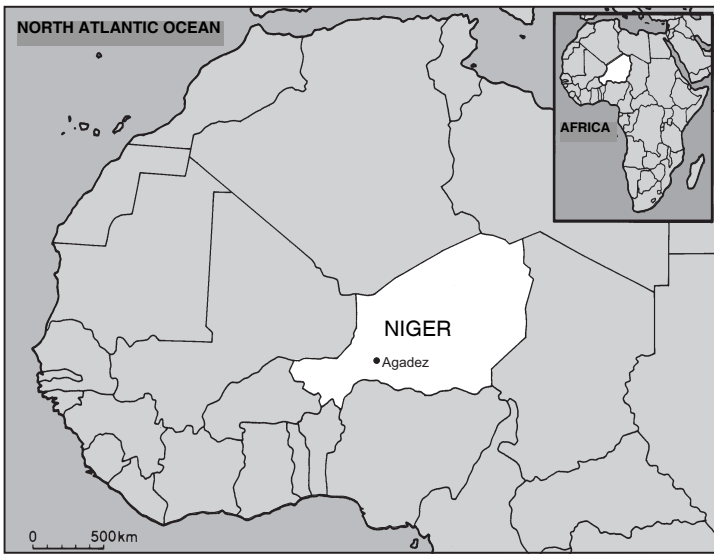


Diagram Q2A: Climate of Agadez, Niger

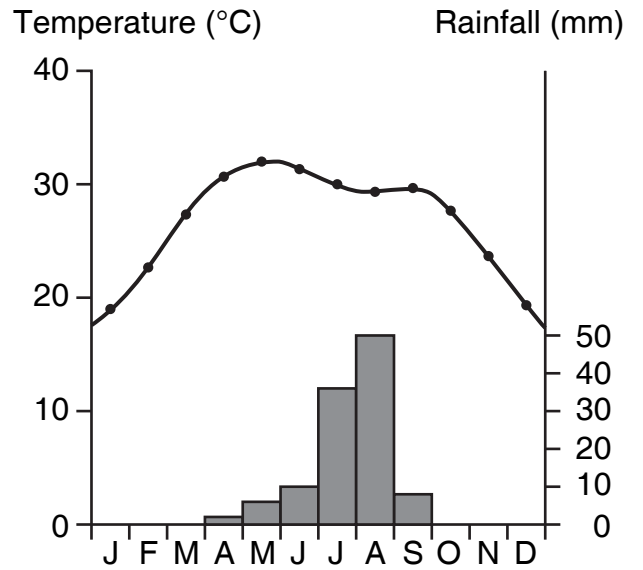


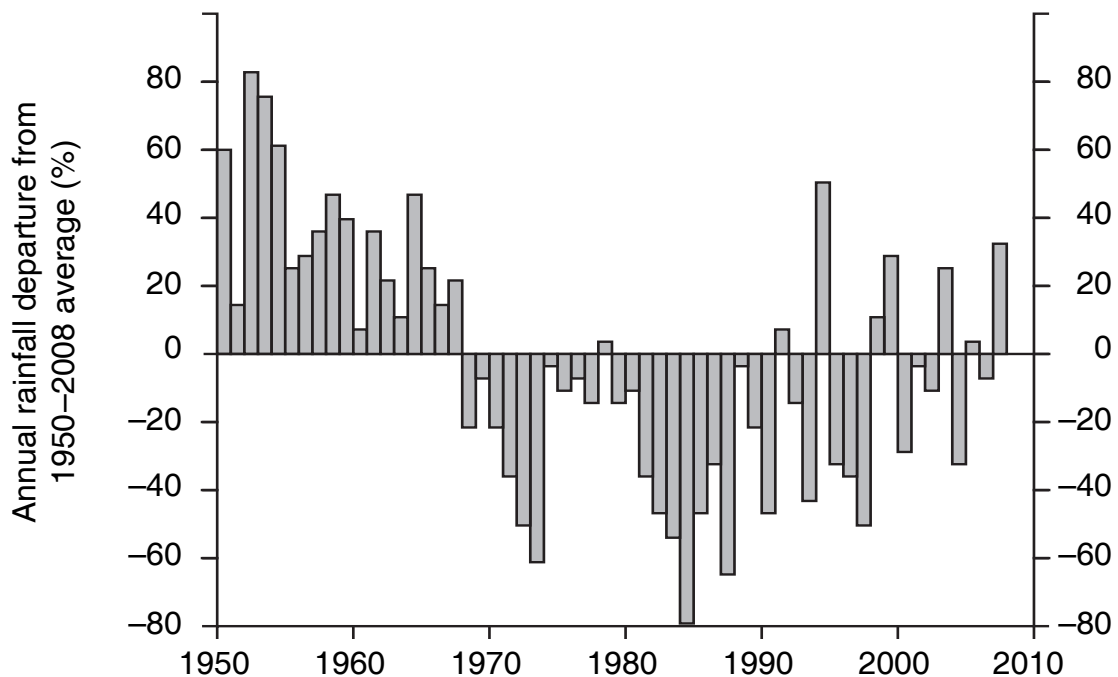
Diagram Q2B: Average daily sunshine hours, Niger



Key

- Temperature
- Precipitation

Diagram Q2C: Rainfall Variability in Niger



Question 3 (River Basin Management)

(a) Study Map Q3, Graphs Q3A and Q3B, and Table Q3.

Explain why there is a need for water management in the Malaysian owned area of the island of Borneo. 12

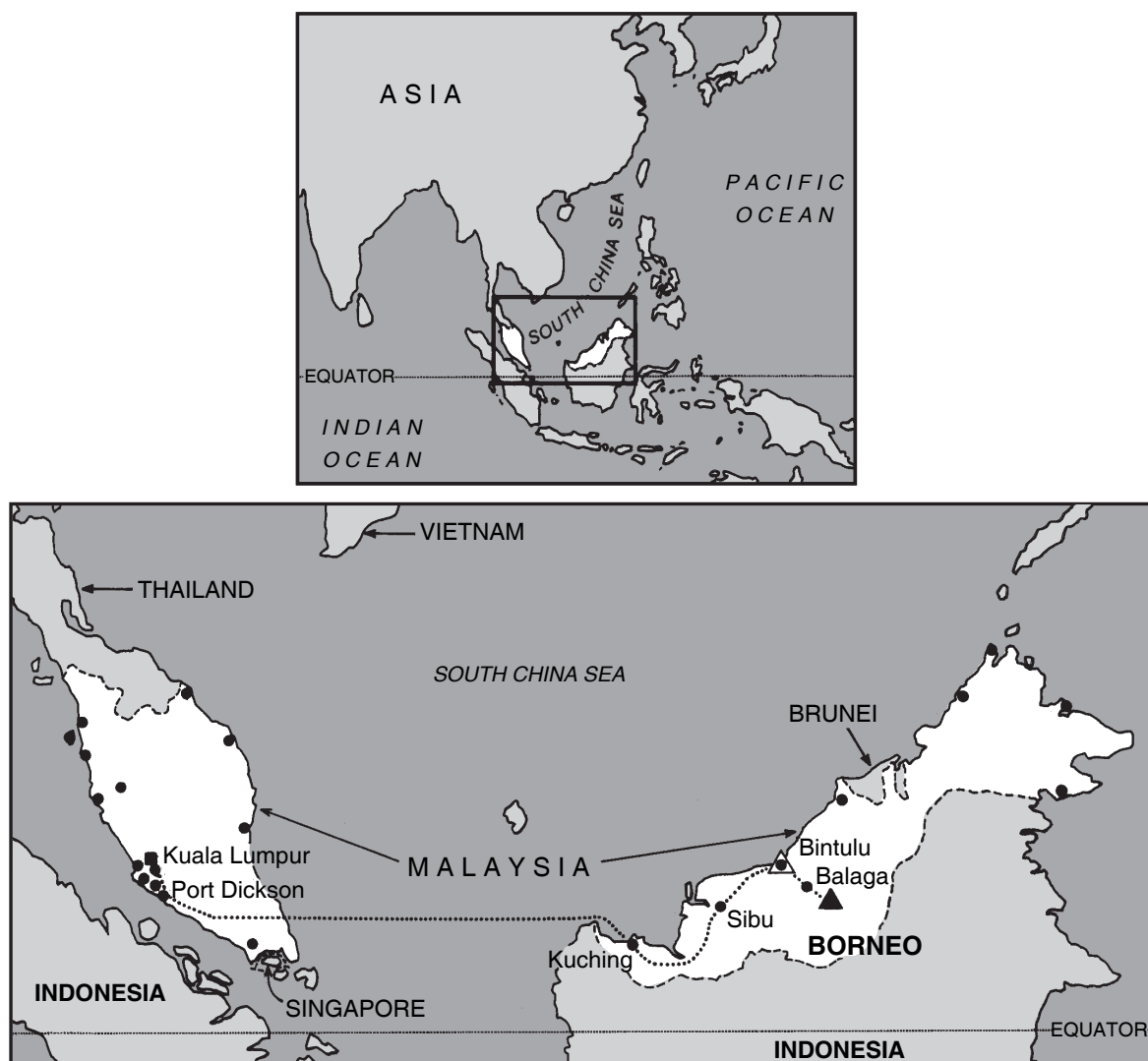
(b) For the Bakun Dam **or** any water control project you have studied in Africa **or** North America **or** Asia, **explain** the physical factors that should be considered when selecting sites for the dam(s) and associated reservoir(s). 10

(c) (i) **Describe** and **explain** the social, economic and environmental **benefits** of a named major water control project in Africa **or** North America **or** Asia. 16

(ii) Comment on any **problems** caused by your chosen water control project. 12

(50)

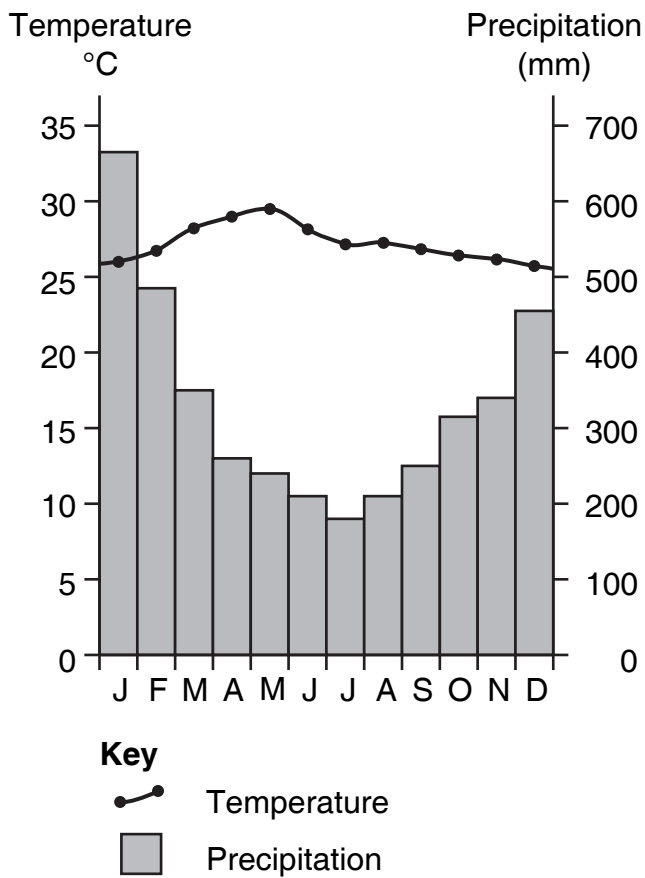
Map Q3: Proposed Bakun Dam, Malaysia



KEY	<ul style="list-style-type: none"> ▲ Bakun Dam Proposed electricity transmission cable • Selected cities over 200,000 inhabitants ■ Kuala Lumpur (capital city), over 1 million inhabitants ▲ Proposed aluminium smelter (Bintulu) 	<p>SCALE</p> <p>0 500 km</p>
------------	---	--

Question 3 – continued

Graph Q3A: Balaga Climate Graph



Graph Q3B: Population of Malaysia (millions)

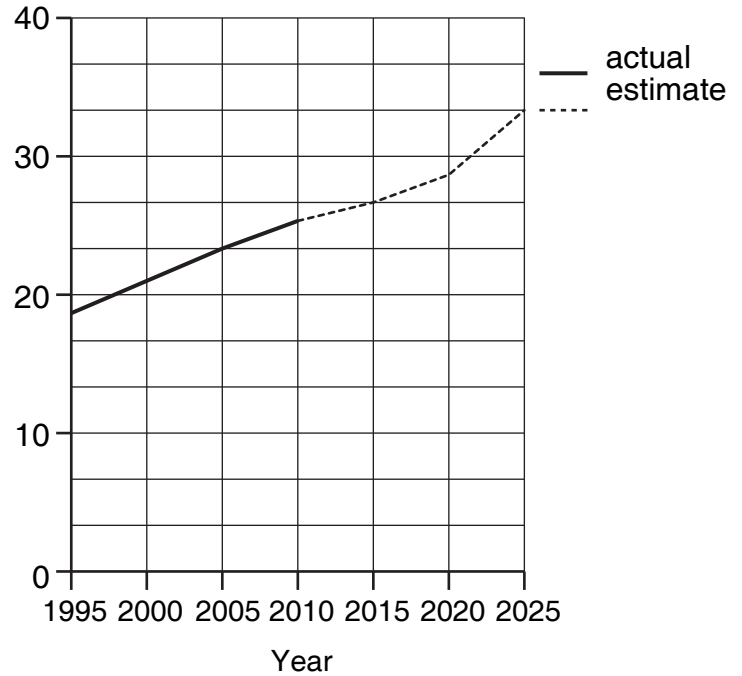


Table Q3: Indicators of Development—Malaysia

Urban population (2008)	70%
Rate of urbanisation (annual rate of change from 2005–10 estimate)	3%
Electricity production (2007)	102·9 billion kwh (kilowatt hours)
Electricity consumption (2010 estimate)	99·8 billion kwh
Electricity exports (2010 estimate)	2·3 billion kwh

[Turn over

Question 4 (Urban Change and its Management)

(a) Study Map Q4A (on *Page nine*).

Describe and **account for** the distribution of major cities in **either** the UK **or** any other **Developed World** country that you have studied.

10

(b) Study Map Q4B (on *Page ten*) and Table Q4 (on *Page eleven*).

“A Games Like No Other—Glasgow 2014 Commonwealth Games.

Glasgow will host the 20th Commonwealth Games where 71 countries will compete in 17 sports at various venues across the city. New facilities will involve massive investment and regeneration, particularly in the east end of the city.”

Discuss the advantages **and** disadvantages of this development for the residents of the East End of Glasgow.

10

(c) For Glasgow, **or** a named city you have studied in the **Developed World**, **describe** and **explain** why it suffers from traffic congestion.

10

(d) Many cities in the **Developing World** are experiencing rapid population growth. With reference to a named city that you have studied in the **Developing World**:

(i) **describe** and **explain** the problems caused by this rapid growth;

12

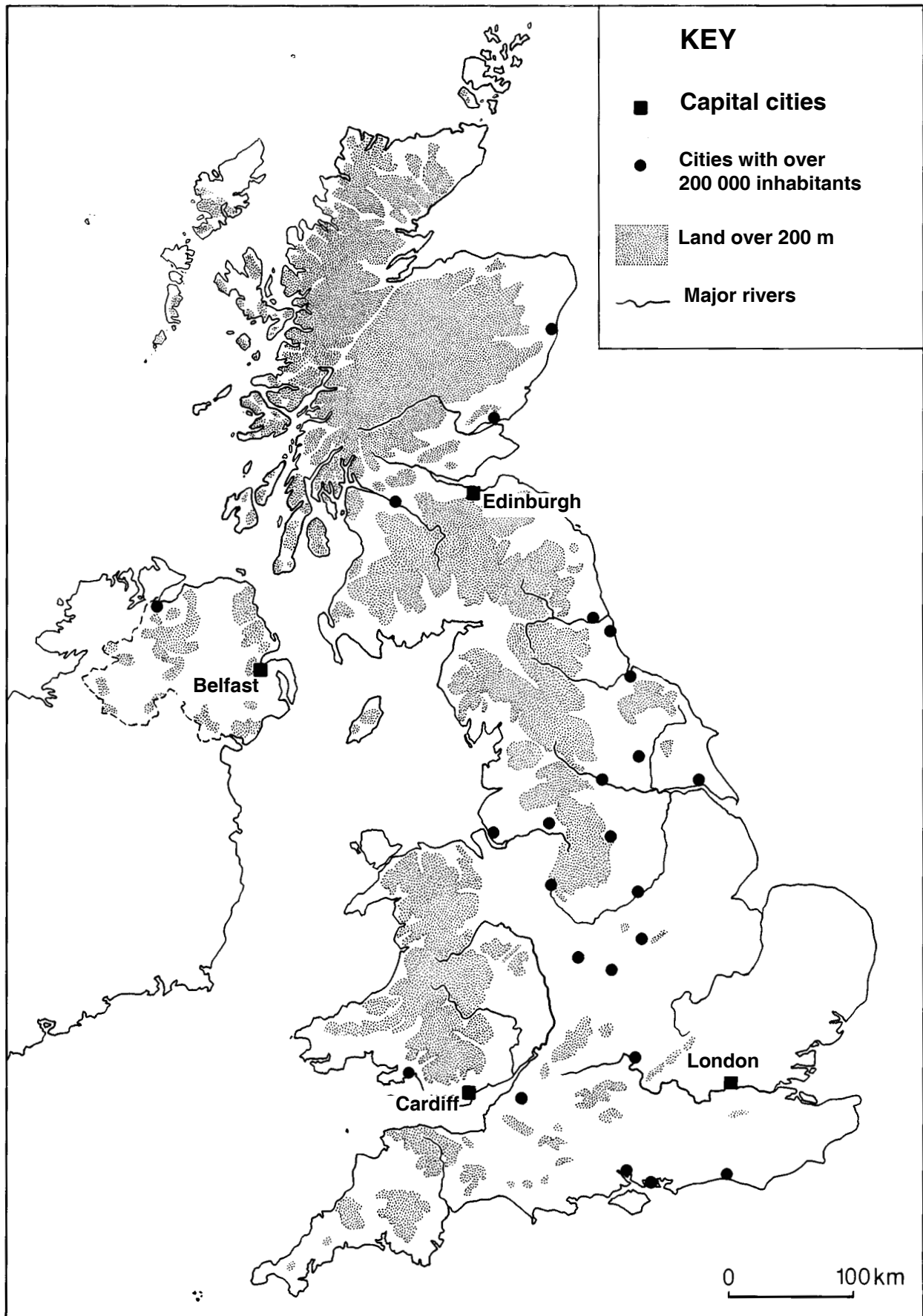
(ii) **describe** the methods the residents and local authorities might use to tackle these problems.

8

(50)

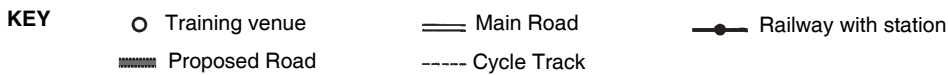
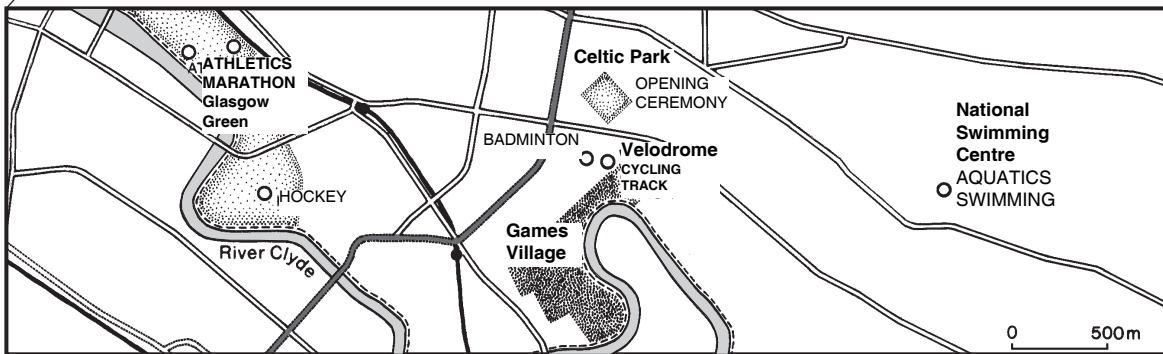
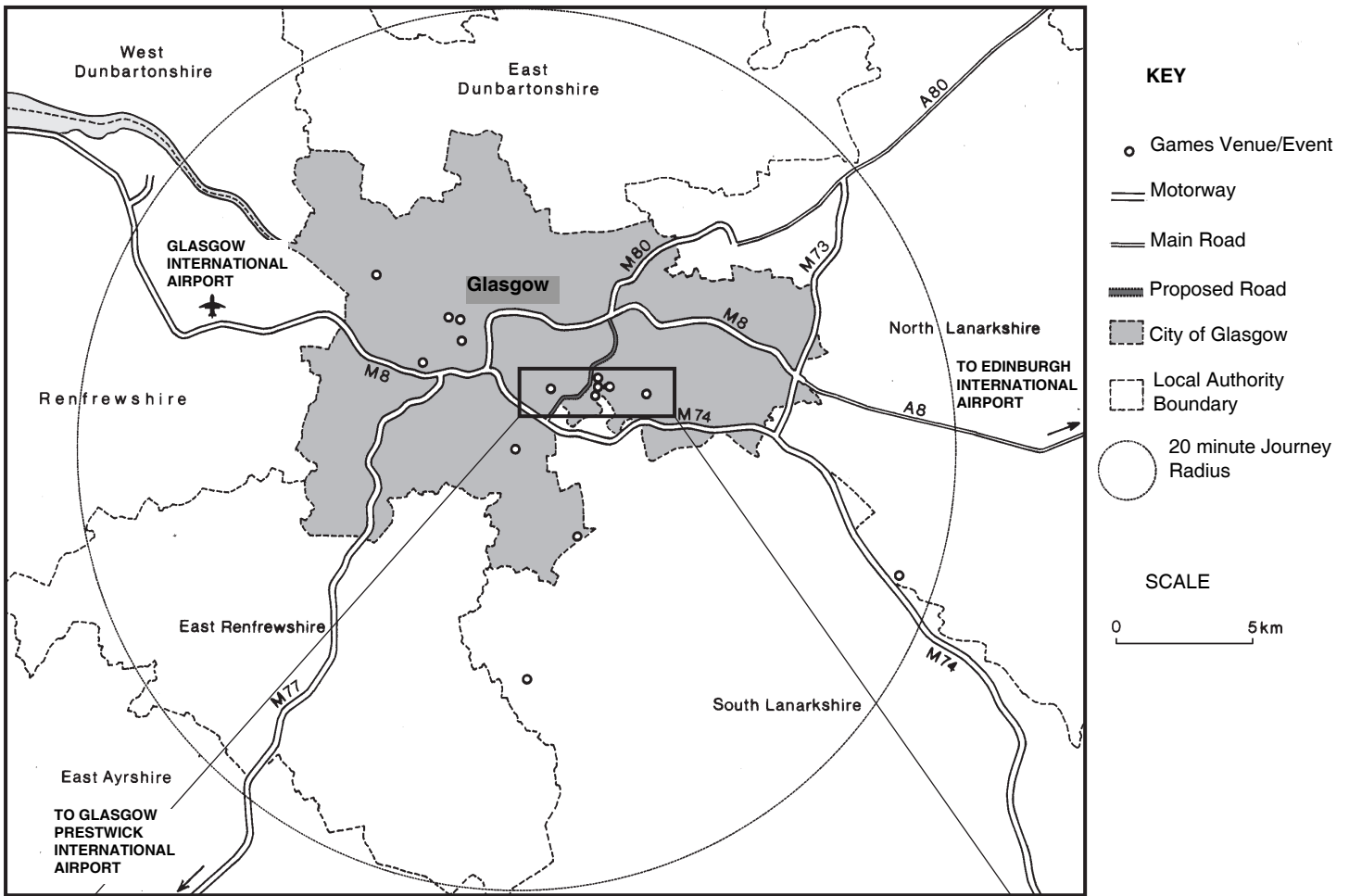
Question 4 – continued

Map Q4A: Largest Cities in the UK



Question 4 – continued

Map Q4B: Selected Commonwealth Games Venues and Events Maps



Question 4 – continued

Table Q4: Games Statistics

Public investment	£298 million (80% from the Scottish Government and 20% from Glasgow City Council)
Jobs	1000 for Glasgow, 1200 for Scotland
Net economic gain	£81 million
Volunteers	15,000 to be trained

[Turn over

Question 5 (European Regional Inequalities)

(a) Study Table Q5A.

“The European Union in 2009 had 27 member states and a waiting list of countries who had applied to join; including Turkey, Croatia, the Former Yugoslav Republic of Macedonia and Iceland.”

Suggest reasons why countries may wish to become members of the European Union.

10

(b) Study Map Q5 and Table Q5B.

Italy is often described as having a “North-South Divide”. With reference to specific provinces and data provided in the table, **comment** on the accuracy of this statement.

12

(c) For Italy **or** any other country of the European Union which has marked differences in economic development between regions, **describe** the physical **and** human factors that have contributed to such regional differences.

16

(d) For the country chosen in part (c):

(i) **discuss** ways in which less prosperous regions can receive help from their national government to overcome such problems; and

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

12

(50)

Table Q5A: GNP per Capita data for selected EU countries

EU Country	Year of joining	GNP per capita (PPP*) 2004	GNP per capita (PPP*) 2008	% Increase in GNP per capita (PPP*)
UK	1973	\$31,430	\$36,130	15
France	1957	\$29,460	\$34,400	17
Slovakia	2004	\$14,480	\$21,300	47
Poland	2004	\$12,730	\$17,310	36

PPP* = Purchasing Power Parity

Question 5 – continued

Map Q5: Italy—GNP Per Capita by Provinces

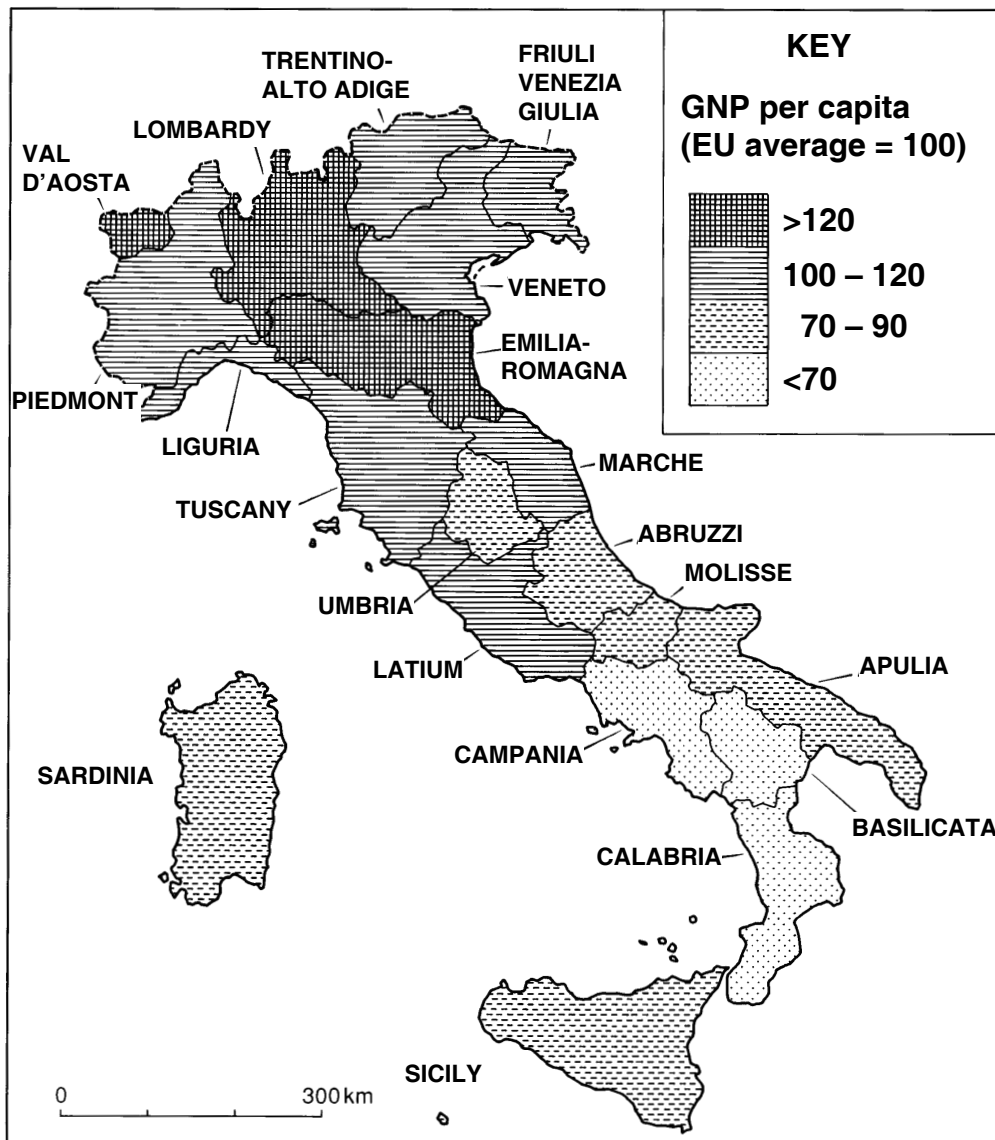


Table Q5B: Italy—Percentage of total employment in selected sectors in North and South

Employment Sector	Percentage in north	Percentage in south
Industry	78	22
Commerce	65	35
Services	59	41

[Turn over

Question 6 (Development and Health)

- (a) *“Levels of wealth, health and economic development are not evenly spread within individual countries.”*

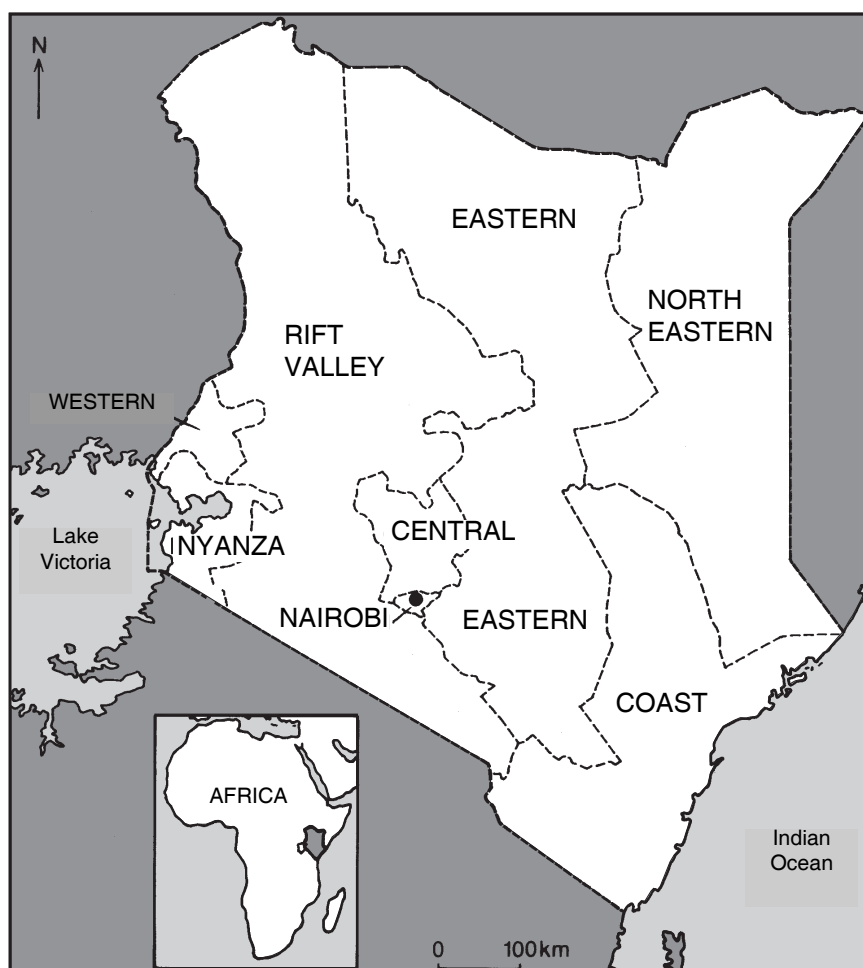
Study Map Q6 and Table Q6.

- (i) In what ways does the information given in the table suggest that the eight provinces of Kenya are at different levels of development? **10**
- (ii) For Kenya **or** any other Developing Country that you have studied, **suggest reasons** why such regional variations exist **within** a Developing Country. **10**
- (b) For malaria, **or** bilharzia, **or** cholera, **describe** the measures that can be taken to combat the disease and **explain** the varying effectiveness of these measures. **18**
- (c) *“The ultimate goal of Primary Health Care is better health for all.”*
(World Health Organisation)

Describe some specific Primary Health Care strategies that you have studied and **explain** why these strategies are suited to Developing Countries. **12**

(50)

Map Q6: Provinces of Kenya



Question 6 – continued

Table Q6: Selected socio-economic indicators of development for Kenya's provinces

Province of Kenya	% Females with no education	% Males with no education	% Population below the poverty line	% Children aged 12–23 months without all vaccinations
North Eastern	87	66	64	92
Coast	38	23	58	36
Eastern	20	14	58	37
Central	12	8	31	24
Nairobi	10	8	44	40
Rift Valley	28	22	48	46
Western	18	11	61	52
Nyanza	18	10	65	64

[END OF QUESTION PAPER]

[BLANK PAGE]