

SECTION A

ANSWER ALL QUESTIONS IN THIS SECTION

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blank*

A 1. (a) Study Figure 1 in the Resource Book, which shows world population growth since 1750 and its projected growth to 2100.

(i) What was the total world population in 1800 and in 2000?

1800.....

2000.....

(1)

(ii) Describe how world population is expected to increase between 1750 and 2100.

.....

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(2)

(iii) Suggest two reasons why the total world population grew slowly before 1900.

1.....

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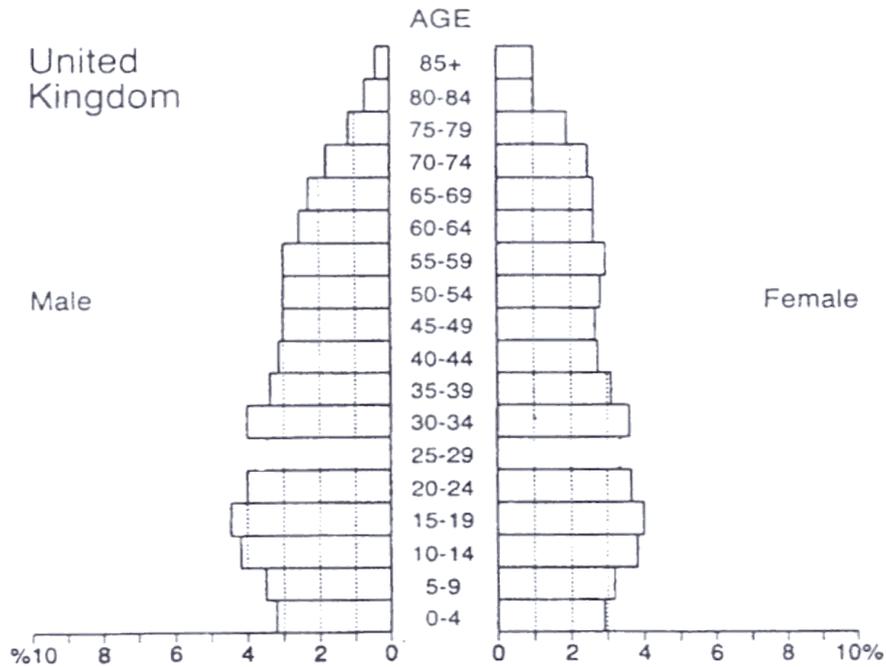
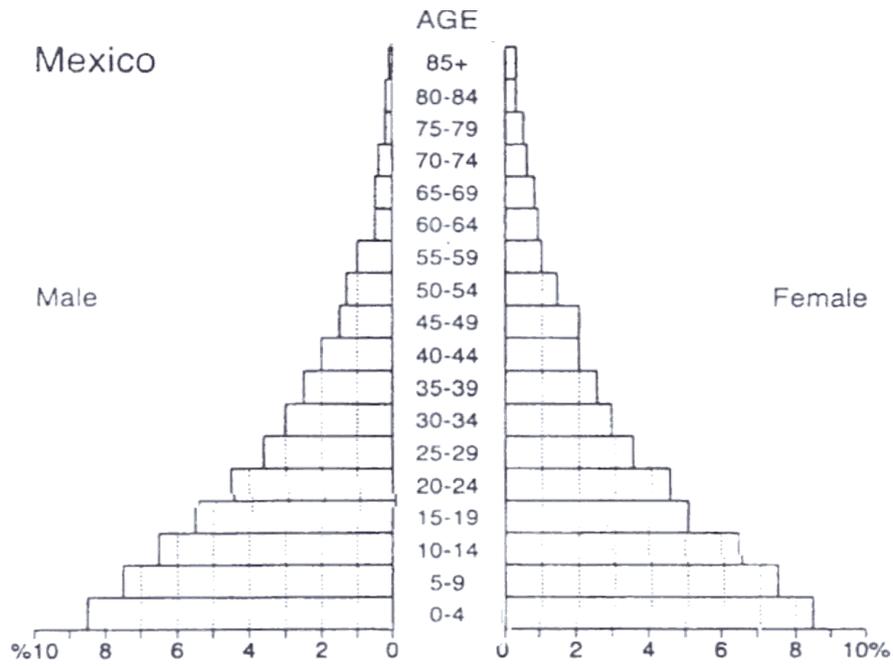
2.....

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(2)

(b) Study Figure 2 below which shows the population structure of Mexico and the UK.

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Each full square represents 1% of the total population

Figure 2

(i) Complete the table below.

Age Grouping	UK %	Mexico %
0 – 4	6.2	

(1)

(ii) Complete the pyramid for the United Kingdom. Use the data below.

Age Grouping	Male	Female
25 – 29	3.5	3.3

(2)

(iii) What do the two pyramids suggest about the birth rate of each country?

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(2)

(iv) The UK pyramid suggests an ageing population.
Why could this be a disadvantage?

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(4)

(v) Suggest one advantage of an ageing population.

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(1)

(c) Look at Figure 3 below, which shows the factors contributing to population change.

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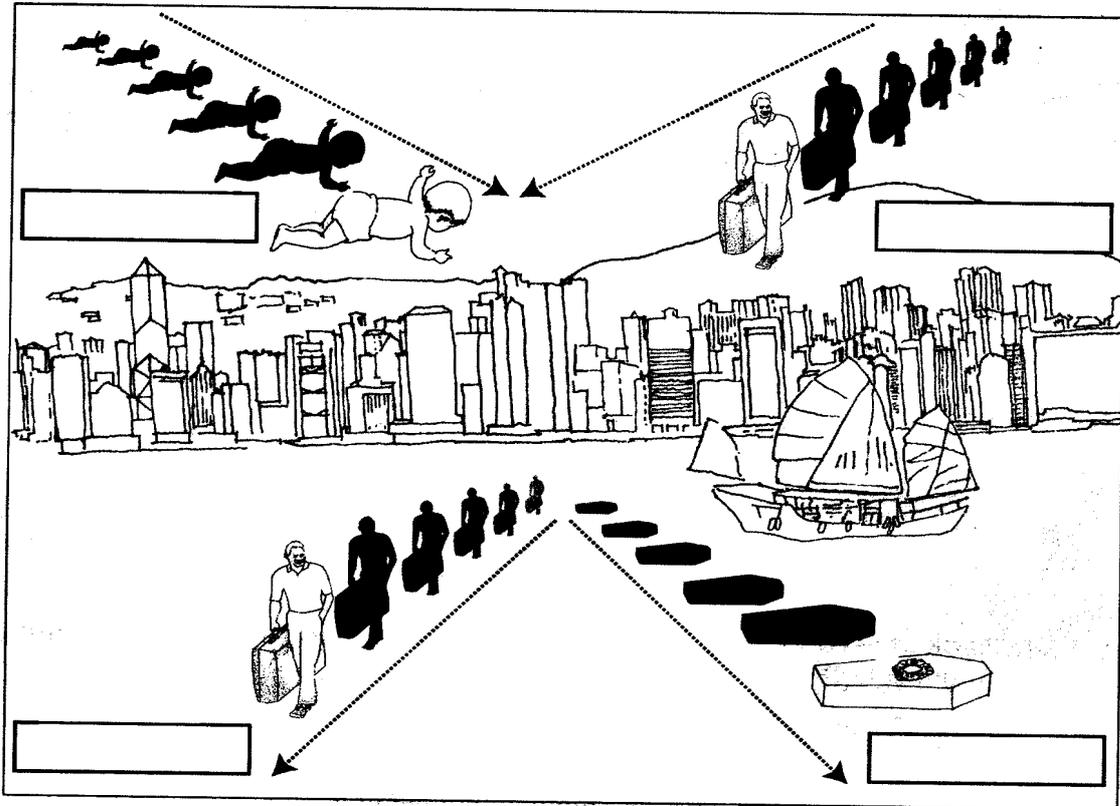


Figure 3

(i) Identify these factors. Write them in the correct spaces in the diagram. (2)

(ii) An MEDC in Europe is receiving a large number of migrant workers. A government minister is in favour of this. Suggest why.

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 (3)

(iii) Some people in the same MEDC disagree with the government minister. Suggest why.

.....

 (2)

A2 Study the 1:50,000 Ordnance Survey (OS) map of the area around Shoreham-by-Sea in Sussex.

(a) Find the town of Steyning (centred in grid square 1711).

(i) Give one piece of evidence that suggests Steyning attracts many tourists.

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.....

(1)

(ii) Give one reason why it would be difficult to build new housing to the south-west of the town.

.....
.....

(1)

(b) There is a plan for a large new housing development in grid square 1812.

(i) Suggest two **advantages** and two **disadvantages** of the site. Use map evidence.

Advantages

1.....
2.....

Disadvantages

1.....
2.....

(4)

Part (ii) begins on the next page

(ii) Small towns like Henfield (Grid Square 2116) or Steyning (Grid Square 1711) are becoming more popular places to live in than larger urban areas.

Suggest why.

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(3)

(iii) Many people already living in Henfield are against further expansion.

Suggest why.

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(3)

(iv) ‘Brownfield sites’ are often suggested as ideal alternative places for new housing.

Suggest why developers are **not** always keen to develop such sites.

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(3)

(c) A developer is keen to obtain planning permission for an out-of-town shopping centre in grid square 1905.

Leave blank

(i) State one **economic** advantage of the site for the developer.

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(1)

(ii) Suggest why some people are in favour of the shopping centre and some people are against.

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(5)

Part (d) begins on the next page

SECTION B

ANSWER EITHER QUESTION B3 OR QUESTION B4

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B3: WATER

(a) Study Figure 4 in the Resource Book, three maps which provide information about the Narmada River Project, a water management scheme in India.

(i) From map 4B, name **two** Indian states affected by the Sardar Sarovar Scheme.

1.....

2.....

(1)

(ii) From map 4C, state **two** ways that water reaches the irrigated areas.

1.....

2.....

(2)

(b) Study Figure 5, which provides more information about the Narmada River Project.

(i) State **two** kinds of land which will be flooded.

1.....

2.....

(1)

(ii) How may this project bring advantages to those living in this part of India?

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(4)

- (c) (i) Two possible physical effects of the dam downstream are increased erosion by the river and salinisation of the soil (build up of salts)

Choose one of these effects and explain how and why it may occur.

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(3)

- (ii) Study Figure 4, map C again.

Describe and explain two other problems that could develop for people living in the area shown on the map.

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(3)

Part (d) begins on the next page

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ANSWER EITHER THIS QUESTION OR QUESTION B3

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B4: WEATHER & CLIMATE

(a) Study Figure 6 in the Resource Booklet, a map showing the world distribution of acid rain.

(i) Name the **three** areas where acid rain of pH 4.5 (or less) has been recorded.

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.....

(3)

(ii) Explain **why** some areas have highly acidic rain.

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(3)

Part (b) begins on the next page

(b) Study Figure 7 in the Resource Booklet, which shows the temperatures recorded in a British city on 21 January in the evening.

(i) Describe the variations in temperature across the city.

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(4)

(ii) Suggest reasons for those variations, using evidence from Figure 7.

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(4)

SECTION C

CHOOSE EITHER QUESTION C5 OR QUESTION C6

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C5: FARMING

(a) Study Figure 8 in the Resource Booklet, which shows changes on a farm in Denmark between 1950 and 1995.

(i) What change has taken place to the size of the fields since 1950?:

.....
.....

(1)

(ii) State three other changes which took place on the farm.

1.....
2.....
3.....

(2)

(iii) Choose one change.
Suggest why the farmer made this change.

Chosen change.....

Reasons

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.....
.....

(2)

(iv) Explain fully why local conservationists were against some of the changes shown in Figure 8.

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(4)

(b) (i) The farmer now uses large amounts of chemical fertilisers for growing crops. How may this harm the environment?

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(2)

(ii) The farmer does not want to change to organic farming. Suggest two reasons that the farmer might give to explain this opinion.

1.....
2.....

(2)

ANSWER EITHER THIS QUESTION OR QUESTION C5

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blank

C6: RECREATION AND TOURISM

(a) Study Figure 9 in the Resource Booklet, a graph showing the number of visits to a National Park.

(i) Briefly describe the change in the number of visits shown on the graph.

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.....
(1)

(ii) Suggest **three** reasons to explain this change.

1.....
.....
2.....
.....
3.....
.....
(3)

(b) Study Figure 10 in the Resource Booklet, a map showing a National Park on the Dutch coast.

(i) List **four** facilities that have been provided for visitors to the National Park.

1.....
2.....
3.....
4.....
(2)

(ii) Estimate the area of the park.

.....sq km
(1)

- (iii) The National Park is an area of sand dunes.
Explain how the environment could be damaged if too many visitors use it.

*Leave
blank*

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(3)

- (iv) Suggest how the transport and access arrangements shown in Figure 10 are designed to reduce visitor pressure.

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(4)

Part (c) begins on the next page

Paper
Reference
1313/4H

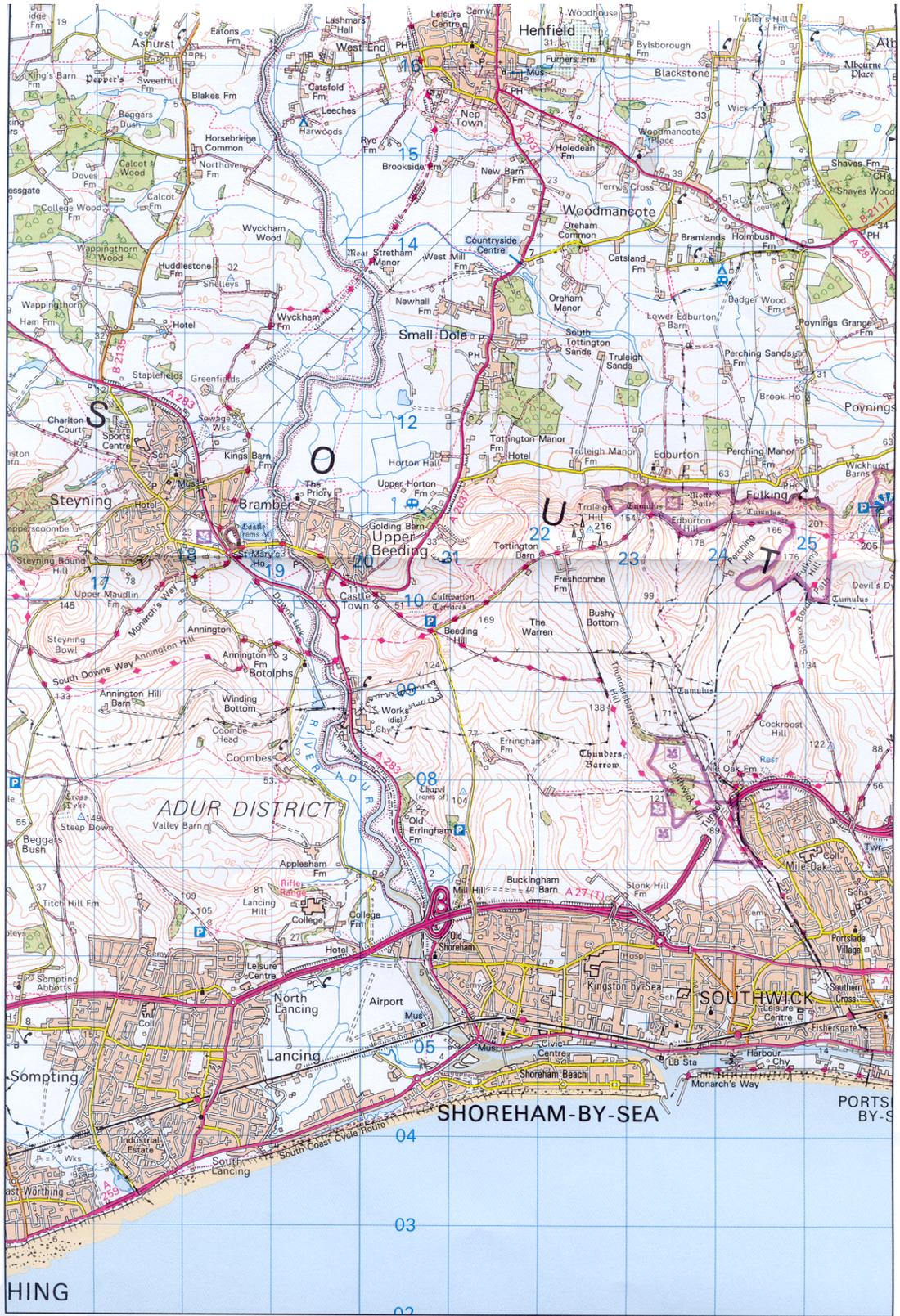
**Ordnance Survey
Map Extract**

Edexcel GCSE

2001

Geography B

Paper 4H



100m

HING

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Paper
Reference
1313/4H

Resource Booklet

Edexcel GCSE

2001

Geography B

Paper 4H

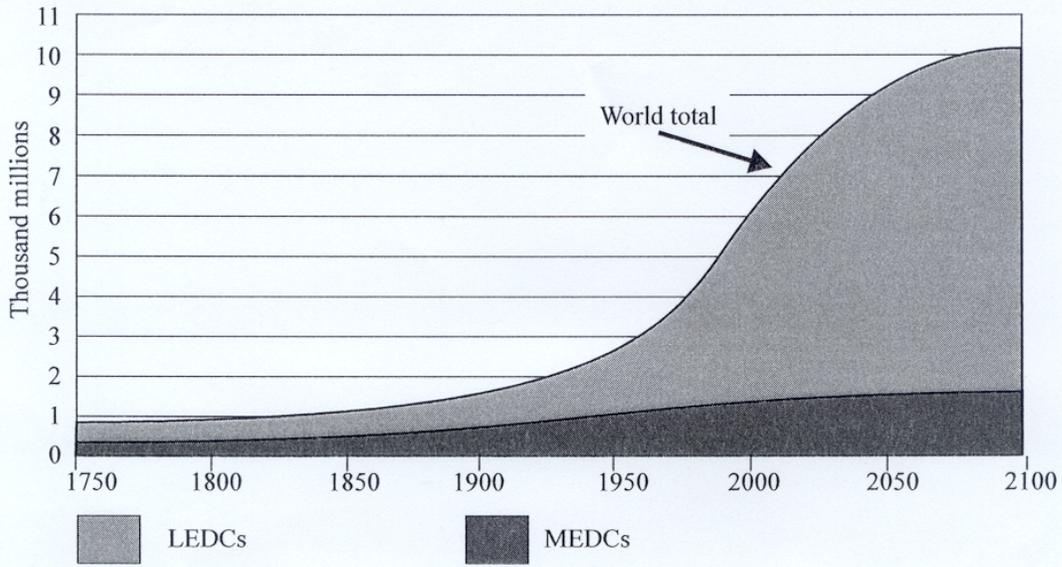


Figure 1

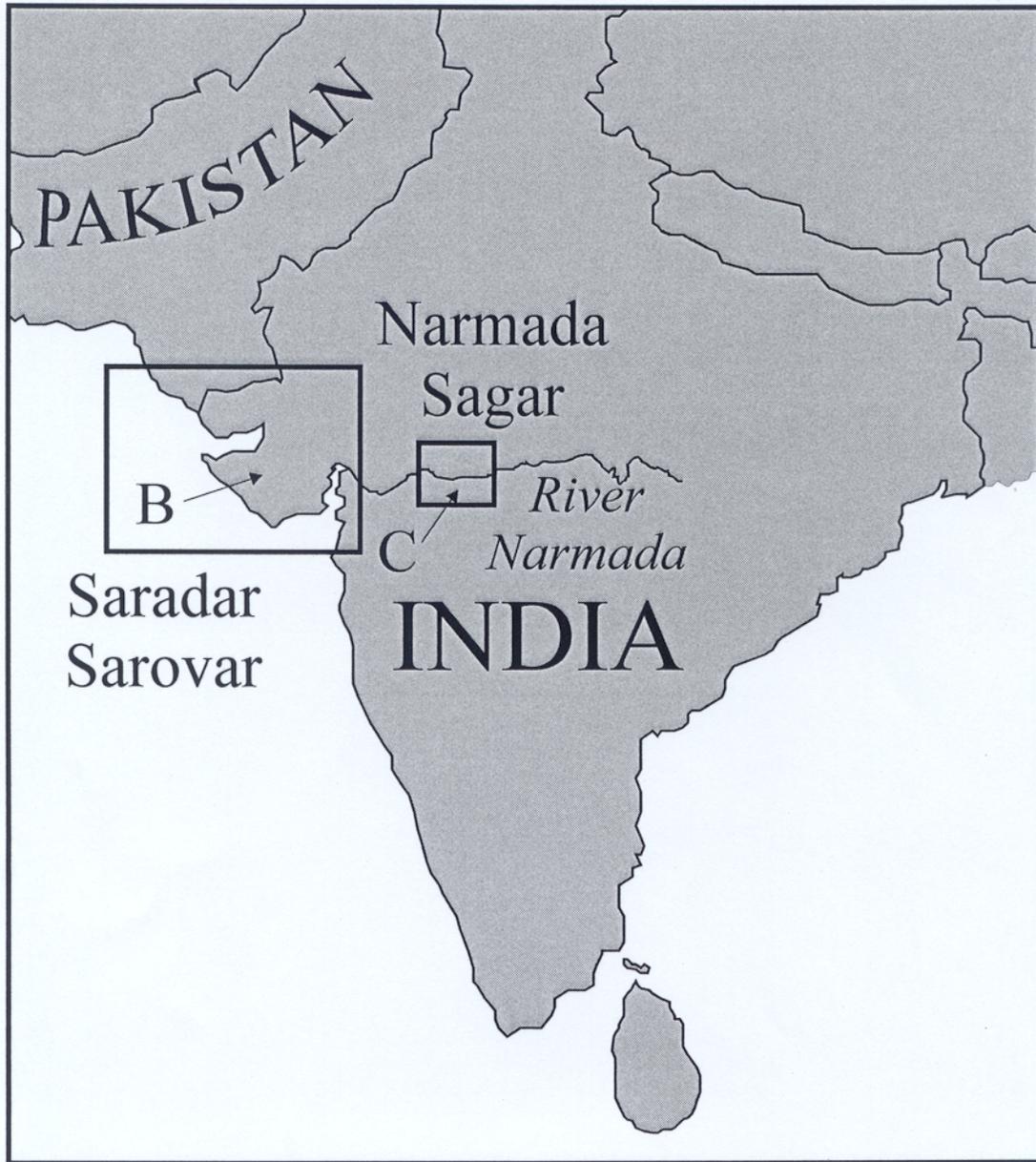


Figure 4 - Map A

Note: Area B is shown in more detail in Map B
Area C is shown more detail in Map C

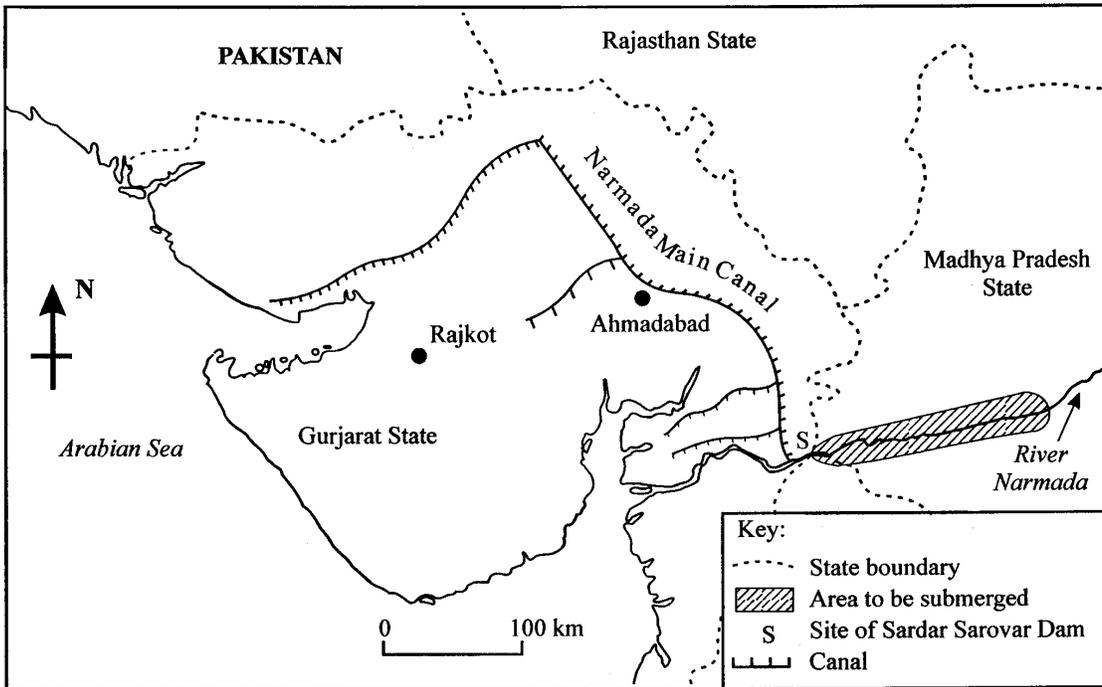


Figure 4 Map B – The Sardar Sarovar Scheme

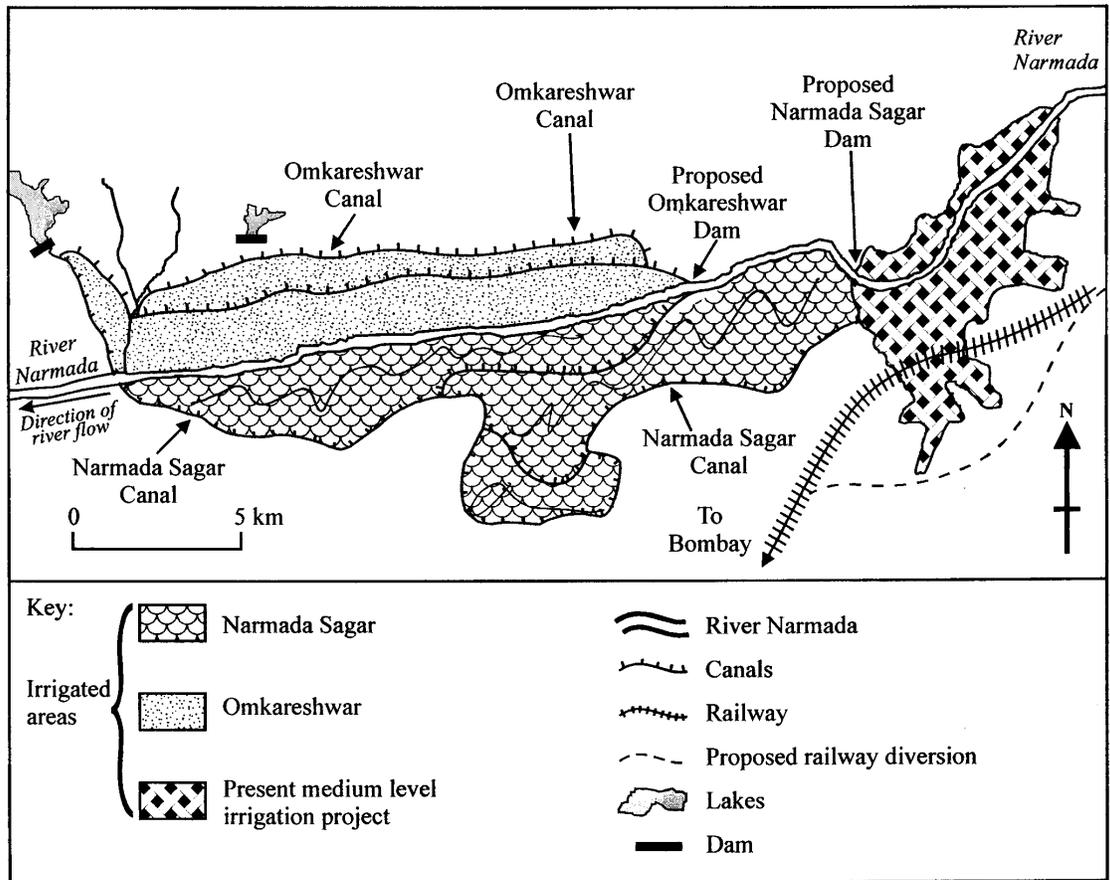


Figure 4 Map C – The Narmada Sagar Scheme

The Narmada River Project in India

One of the world's largest river projects involving the construction of two super dams. The Narmada Sagar and the Sardar Sarovar, thirty large dams, one hundred and thirty medium dams and thee thousand minor dams along the length of the River Narmada. In total, 3,500 km² of forest and 600 km² of productive land (¼ the size of Wales) will be flooded displacing 1.5 million people. The Sardar Sarovar dam alone could provide 75 billion gallons of water daily, 11,000 km² of irrigated land and 1450 megawatts of power.

Figure 5 – Information about the Narmada River Project

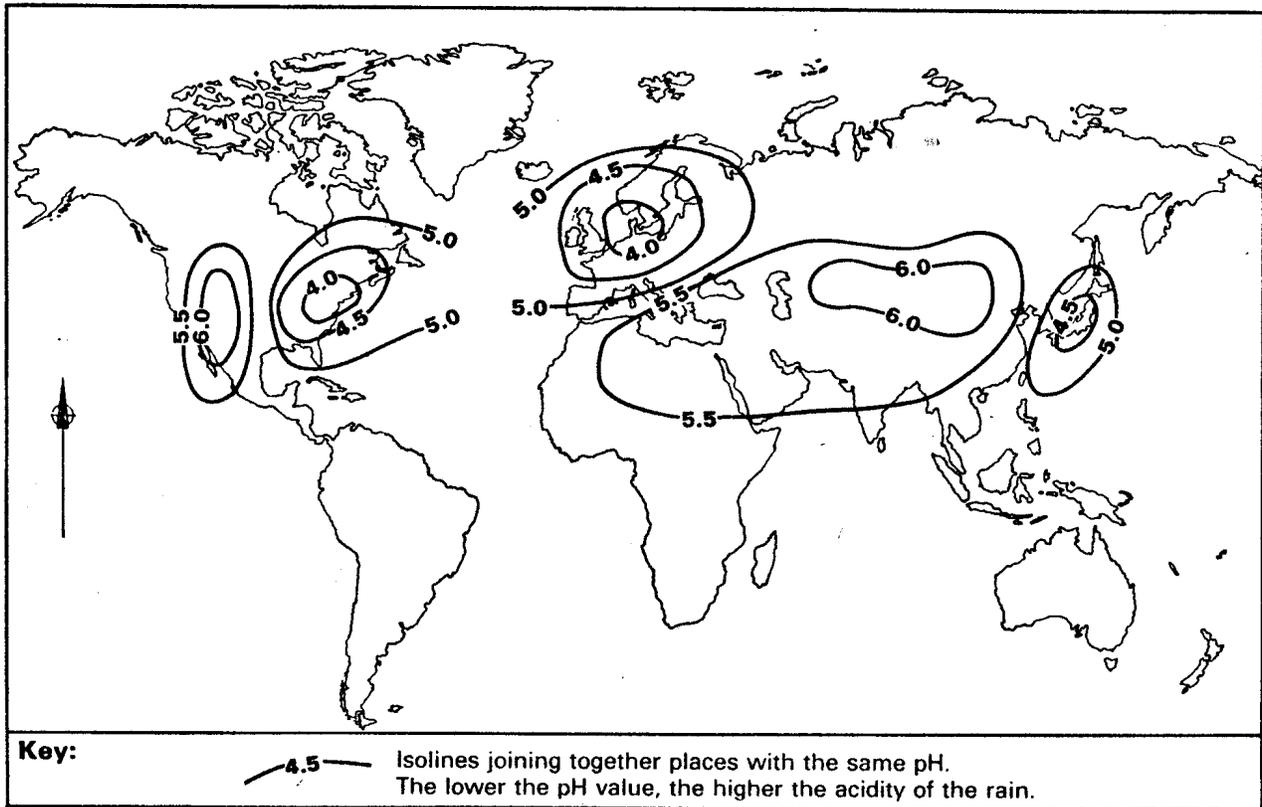


Figure 6 –The world distribution of acid rain

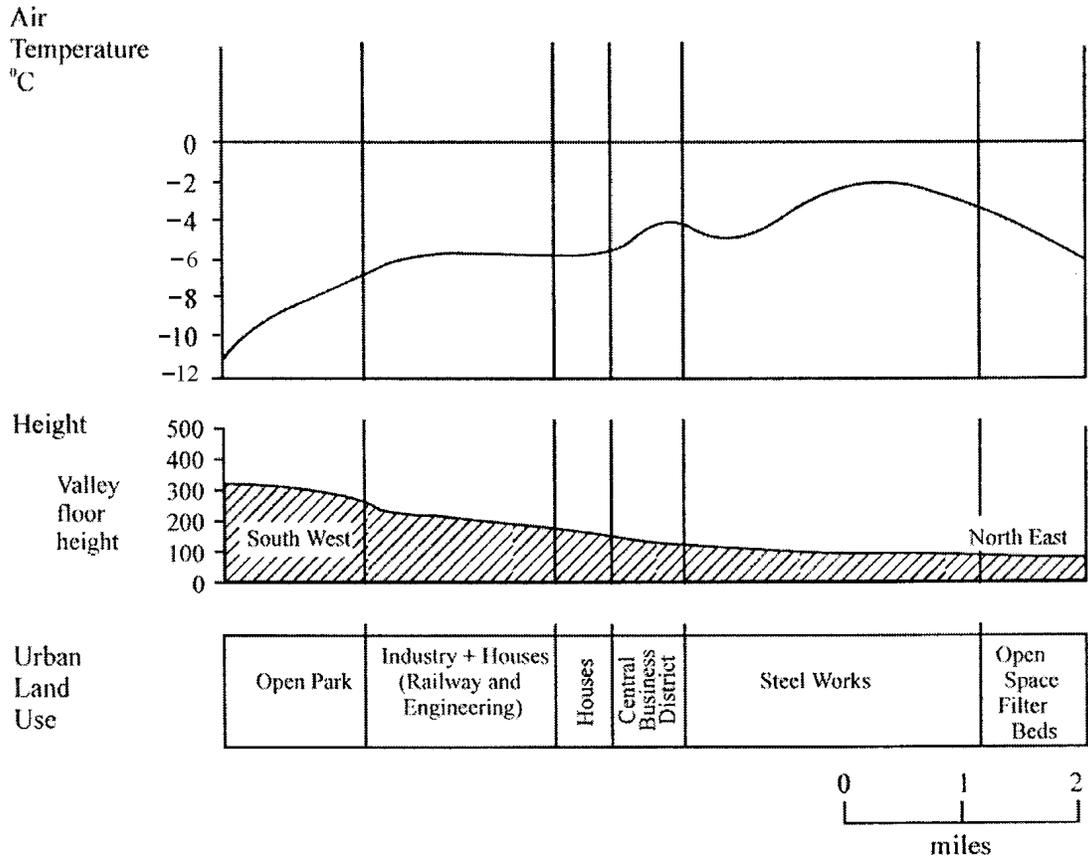
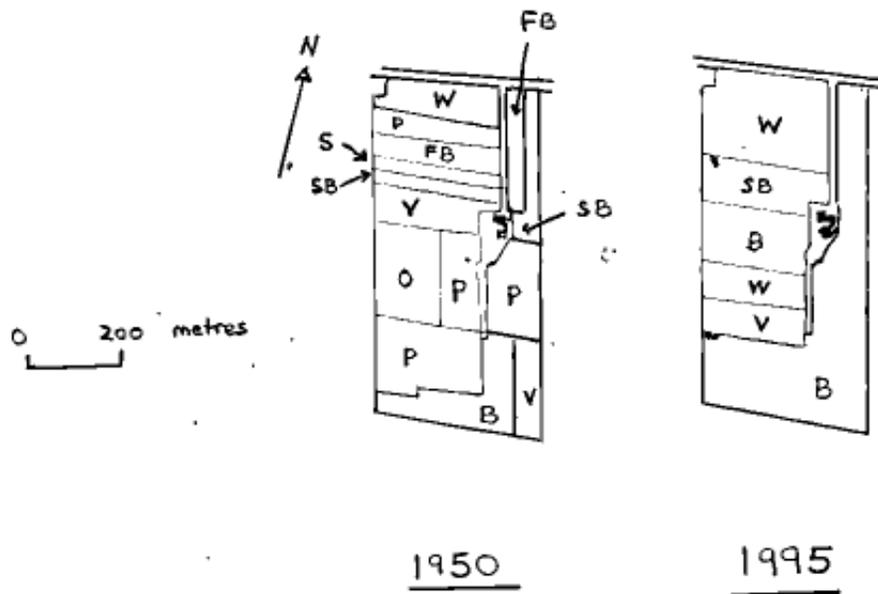


Figure 7



KEY

- Road
- Farm building
- Field boundary (hedge)

- B Barley
- W Wheat
- O Oats
- SB Sugar beet
- FB Fodder beet
- S Swedes
- Y Vegetables
- P Pasture

Figure 8

Changes on a farm in Denmark between 1950 and 1995

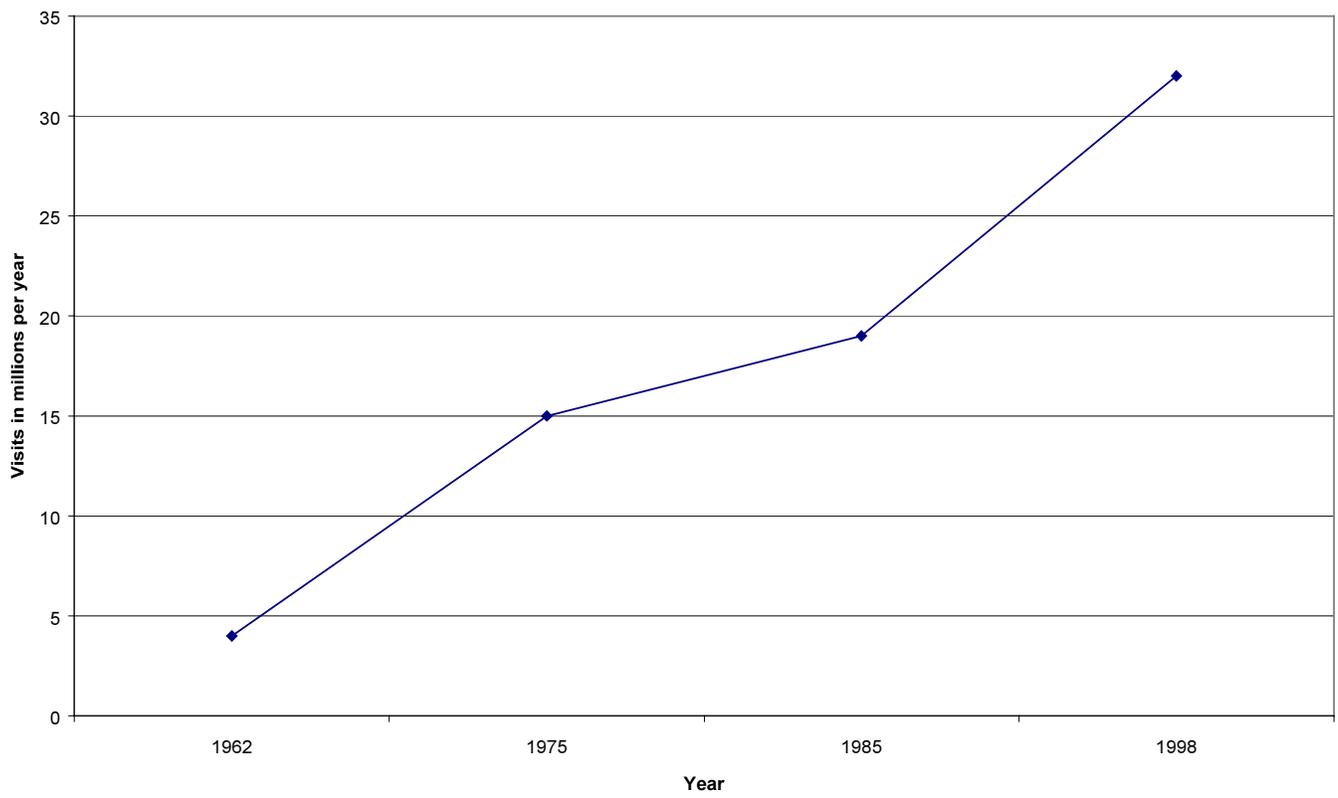


Figure 9 – Number of visits to a National Park

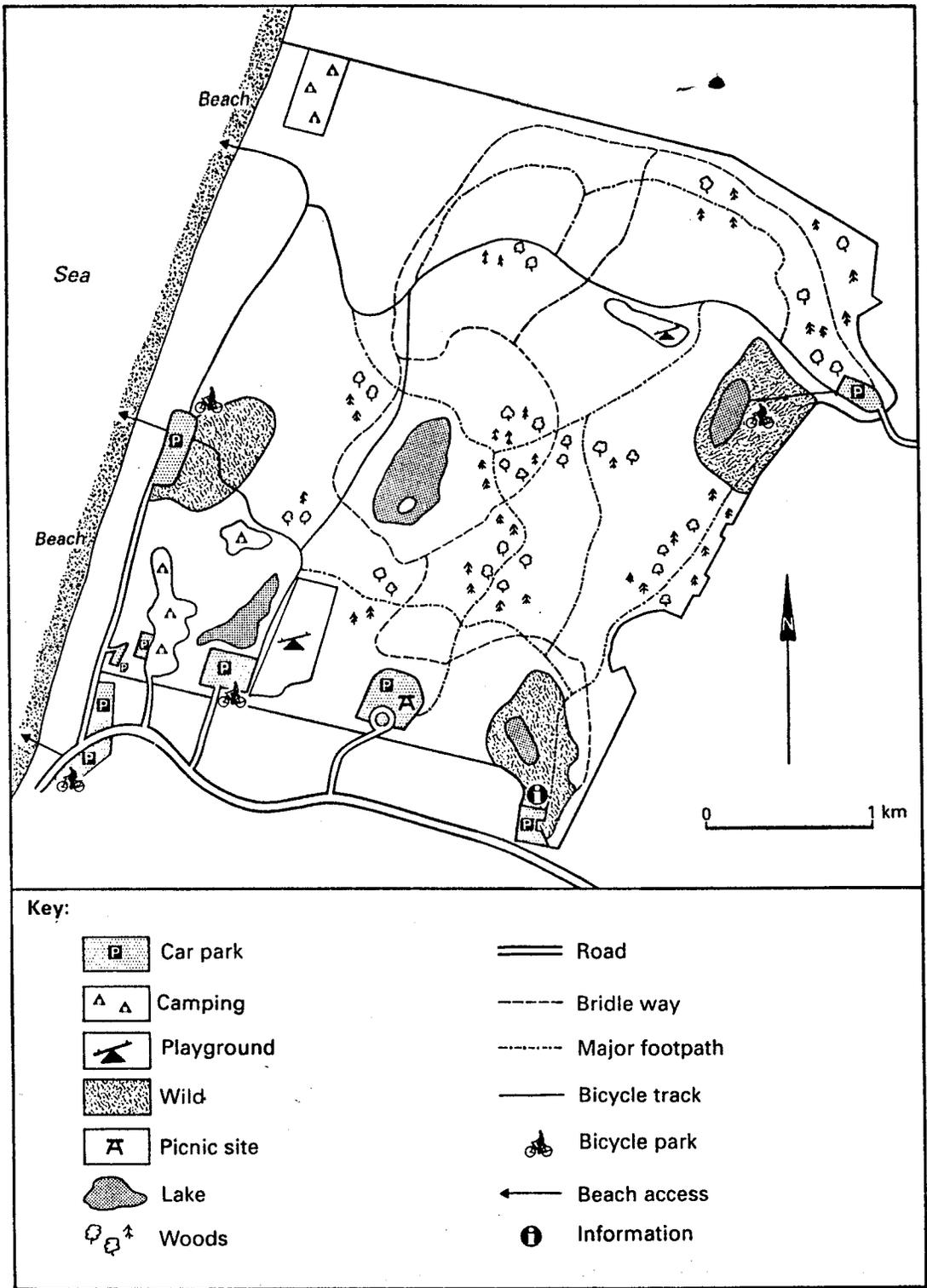


Figure 10 – A National Park on the Dutch coast

GCSE

Mark Scheme

GEOGRAPHY 1313

PAPER 4H

Edexcel
Success through qualifications

GENERAL MARKING INSTRUCTIONS

The mark scheme is based on a combination of direct credit marking and levels of response marking.

When levels of response marking are used, the examiner should determine the highest level reached by the candidate before awarding marks within the range allocated to that level of response. Do not be afraid to give full marks.

Not all points mentioned in the mark scheme against each level need to be met for an answer to start scoring at that level. It will be possible for a candidate to reach a score through either the breadth or depth of the answer.

Where a points mark scheme is used, candidates should be credited for each valid point made, whether the points give extra breadth or greater depth. The wording of the question should be used to determine the validity of the points offered: for example an answer requiring explanation could not gain full marks if it only describes; a question requiring ‘reasons for ...’ could not get full marks if only one reason is offered in depth – some breadth would be required.

The answers suggested in the mark scheme are for guidance only. In many cases it will be possible for candidates to offer valid, plausible alternatives. Examiners should use their professional judgement to decide whether a given answer is acceptable. In cases of any doubt, the examiner should refer the answer to their team leader or the principal examiner.

Where appropriate, annotated diagrams are acceptable as a substitute for text and can gain full marks if they meet the requirements of the mark scheme.

Question A1

(a)	(i)	1800 = 1 billion 2000 = 6 billion	$\frac{1}{2} \times 2$	1
	(ii)	Started slowly (1) Rapid increase (1) Levelled off (1)	1 x 2	2
	(iii)	Eg Lack of medical knowledge (1) Lack of clean water (1) High death rate (1)	1 x 2	2
(b)	(i)	17%	1	1
	(ii)	Correct completion	1 x 2	2
	(iii)	The birth rate for Mexico is high (1) for the UK low/decreasing (1)	1 x 2	2
	(iv)	Eg Fewer active workers in relation to those of retired age needing support (1) Increased cost of medical care (1) Increased overall cost of pensions (1) More old people's homes needed (1)	1 x 4	4
	(v)	Eg More people available for voluntary work after retirement (1) Spending power of retired people ('grey pound') (1)	1	1
(c)	(i)	Correction completion. Births, immigration, deaths, emmigration (allow descriptive statements)	$\frac{1}{2} \times 4$	2
	(ii)	Likely to be highly skilled (1) shortage of skilled nationals (1) + example (1) Could bring cultural diversity (1) + example (1)	1 x 2	2
	(iii)	Loss of jobs (1) fear of foreigners (1)	1 x 2	2

(d)

Level One

Provides a very brief explanation and description with few if any real facts related to the chosen example. May state a view about sustainability without giving reasons. 1 – 2

Level 2

Describes with some factual information how the chosen scheme contributes to the supply of energy. Includes an explanatory point about how the scheme will affect the environment. Answers can be related to the chosen study. States a view about sustainability with one or two brief reasons. 3 – 6

Level 3

Displays a detailed knowledge of the chosen scheme ie that both the explanation and the description are thorough and accurate. States a view and shows a clear understanding of sustainability. 7 – 9 9

Total: 30 marks

Question A2

(a)	(i)	Castle/Museum/Hotel	1	1
	(ii)	Steeply sloping ground/woodland would have to be destroyed.	1	1
(b)	(i)	Advantages Gently sloping ground (1) Close to A283 for access (1) Disadvantages Close to river which could flood (1) Few roads (1) (Air pollution) from sewage works (1)	1 x 4	4
	(ii)	Attractive scenery (1) Cleaner air (1) Less noise (1) Less congested (1) Less crime (1)	1 x 3	3
	(iii)	Will lead to more noise (1) Visual pollution (1) Loss of farmland (1) Destruction of habitats (1)	1 x 3	3
	(iv)	Inner city land will be expensive (1) High cost of clearing (1) Congested site (1) Customers prefer edge of town/rural locations	1 x 3	3
(c)	(i)	Close to urban areas for customers (1) Cheap land due to marshy conditions (1) Close to main road for access (1)	1	1

(ii) Level 2

States reasons for both viewpoints eg jobs, more choice **but** traffic congestion etc.

1 – 3

Level 3

Demonstrates a clear understanding of the possible differing viewpoints eg jobs, wider choice but loss of open space, pollution etc. Likely to refer to actual people/groups rather than refer to ‘some people’.

4 – 5 5

(d)

Level One

States or briefly describes one or two problems eg traffic congestion and makes brief reference to possible solution eg improved public transport. Answers may be general rather than specific to chosen study.

1 – 2

Level Two

Describes some problems related to both traffic and waste. Demonstrates some understanding of sustainability.

Refers to several solutions eg park and ride, improved bus service, recycling of waste etc, and explains at least one. Answer can be related to chosen study.

3 – 6

Level Three

Describes clearly problems faced in the chosen town or city, referring to both waste and traffic. Shows a clear understanding of sustainability.

Provides a detailed explanation of at least one way in which each problem can be dealt with – eg road pricing, park and ride and reusing and recycling of waste. Answer is clearly about the chosen study.

7 – 9 9

Total: 30 marks

Question B3 - Water

- | | | | | |
|-----|------|--|------------------------|---|
| (a) | (i) | Madhaya Pradesh and Gujarat | $\frac{1}{2} \times 2$ | 1 |
| | (ii) | Flow canal (1)
Lift canal (1)
Just 'canals' (1)
Or 2 named canals (1+1)
River (1) | 1×2 | 2 |
| (b) | (i) | Forest land ($\frac{1}{2}$)
Farm land/productive land ($\frac{1}{2}$) | $\frac{1}{2} \times 2$ | 1 |
| | (ii) | Advantages
Extra electrical power (1)
Improved water supply (1)
Jobs during construction (1)
More land for farming (1)
(Allow 2 where development of point is made eg electrical power for industry) | 1×4 | 4 |
| (c) | (i) | Increased erosion – sediment trapped behind dam (1) so less sediment for river to carry (1) so increased power for erosion (1).
Salinisation of soil – high temperatures (1) cause evaporation of water from the soil (1) leaving salts behind (1). | 1×3 | 3 |
| | (ii) | Loss of timber for fuel (1) transport disrupted (1) water-borne diseases (1) loss of land for housing (1) loss of family farmland (1) | 1×3 | 3 |

(d)

Level One

Briefly states one or two effects eg chemicals from farmland kill fish. May state one or two simple actions that can be taken. Answers may be general, rather than specific to the chosen study..

1

Level Two

Describes at least one effect, with others perhaps listed. Provides some detail on what action has been taken. Answer can be related to the chosen study.

2 – 4

Level Three

Provides detail on the effects and also links the actions to the particular effects chosen. Provides good factual detail related to the chosen example.

5 – 6 6

Total: 20 marks

Question B4 – Weather and Climate

- (a) (i) E Asia (1) or Japan (1)
NW/N/W Europe (1) or two named countries there (1)
E USA or E America or E North America (1) 1 x 3 3
- (ii) For example:
Industrialised/developed regions (1)
Where fossil fuels are burnt on a large scale (1)
and road traffic densities are high (1)
Areas downwind of such regions (1)
- Accept for a maximum of two marks details of the acidification process:
Eg release of sulphur dioxide/nitrogen oxide into atmosphere (1)
and combination with H₂O to form acid (1), but for max. must have a reason 1 x 3 3
why this happens more in some areas, e.g. presence of industry.
- (b) (i) Eg Highest temperatures in steelworks area (1)
Secondary peak in CBD (1)
Fairly high temperatures in housing areas (1)
Lowest temperatures in areas of open space (1)
Lowest temperatures on higher land in south-west (1)
- If such details are not given, accept for 1 mark the general recognition of an 1 x 4 4
urban heat island.
- (ii) Production of heat in steel furnaces (1), which will operate 24 hours a day (1)
Industrial air pollutants act as ‘blanket’ trapping heat (1)
Slow release of accumulated heat from city centre office blocks (1) and
roads/traffic (1)
Escape of energy from domestic heating systems in winter (1)
Cooling effect of the stronger winds (1) and higher humidity over open spaces
(1)
Vegetated surfaces lose heat more quickly than built-up ones (1)
- Accept effect of increased altitude in reducing temperatures (1) and the effect
of the prevailing wind direction, ie heat island effect may be blown down-
wind (1) 1 x 4 4

(c)

Level One

Identifies air pollution or CO₂ as the cause of global warming, and mentions some sources of it. Mentions some simple direct and/ or indirect effects (e.g. more hurricanes; rise in sea level; boom in tourism). Answer may be general rather than relate specifically to chosen area.

1

Level Two

Identifies one or more greenhouse gases and their sources, and states that they prevent heat escaping from the atmosphere. Briefly explains some direct and/or indirect effects (eg links an increased flood risk to the rise in sea level; links a boom in tourism or new types of farming to warmer summers). Answer can be related to chosen area.

2 – 4

Level Three

Explains the greenhouse effect in some detail, showing how the radiation balance of the atmosphere is changed by the presence of CO₂, methane etc. Explains in detail some direct and/or indirect effects clearly related to the named example (eg northward spread of crop limits, migrations due to drought and famine; policies to cut emissions of greenhouses gases).

5 – 6 6

Total: 20 marks

Question C5 - Farming

- | | | | | |
|------------|--------------|--|--------------|----------|
| (a) | (i) | Increased | 1 | 1 |
| | (ii) | Increase in cereals/ barley/ wheat (1)
Removal of permanent pasture (1)
Removal of hedges (1)
No longer any oats/ fodder beat (1)
More buildings (1) | 1 x 3 | 3 |
| | (iii) | No marks for change. Possible reasons include:
Higher/guaranteed prices for cereals (1)
Livestock now stall-fed (1)
To facilitate use of large machinery (1)
Reduced milk quotas (1)
To increase the cropped/productive area (1)
Horses no longer kept (1)
Due to mechanisation (1)
To increase income/profits (1)
Credit references to EU policies (1) | 1 x 2 | 2 |
| | (iv) | Destruction of habitats eg hedgerows (1)
and therefore loss of birds, small mammals (1)
Removal of windbreaks ie hedges (1) so increased soil erosion (1)
Unattractive open prairie landscape (1)
instead of traditional 'patchwork' landscape (1)
Loss of wild plants/flowers/meadow grasses (1) | 1 x 4 | 4 |
| (b) | (i) | Chemicals from fields enter/pollute the river (1)
Growth of algae
Reduction in oxygen levels (1)
Fish die (1) | 1 x 2 | 2 |
| | (ii) | Lower yields (1)
Higher production costs (1)
Takes time to become established (1)
Harder work eg using animal manure (1) | | |

Prices may be higher now, but that is not guaranteed (1) 1 x 2 2

(c)

Level One

Mentions a few factors (eg climatic change; population growth) and/or processes (eg over-grazing, over-cultivation). Answer may be general and not specific to chosen study.

1

Level Two

Explains simply the impact of a few factors (eg population growth means increased demand for food) or processes (eg why the loss of tree-cover leads to soil erosion). Answer can be related to chosen study..

2 – 4

Level Three

Explains in some detail the factors and/or processes in the named area, showing clearly some of the inter-connections between physical processes and human actions.

5 – 6 6

Total: 20 marks

Question C6 – Recreation and Tourism

(a)	(i) It increased	1	1
	(ii) Increased wealth (1) Increased car ownership (1) Building of motorways/improved accessibility (1) Decrease in working week/longer holidays/increased leisure time (1) Increased popularity of outdoor leisure activities (1) Better publicity (1)	1 x 3	3
(b)	(i) Car park (½) Bicycle park (½) Camp ground (½) Playground (½) Picnic site (½) Information centre (½)	½ x 4	2
	(ii) Any area in the range 14 to 18	1	1
	(iii) For example: Sand dunes may be eroded (1) due to trampling of vegetation (1) Loose sand may blow onto nearby land/settlements (1) Lakes may become polluted with the dropping of litter (1) Woods may be damaged by fires (1) Wildlife may be harmed/disturbed by excessive noise (1) or by litter such as broken glass/plastic (1)	1 x 3	3
	(iv) Car parks are located on edge (1), so motorists cannot drive into the interior (1) Camping is confined to small areas on the edge of the park (1) Access to most of the park is only possible by foot/bike/horse tracks (1) So traffic will be relatively light (1) Unlimited access is only allowed in three small wilderness areas (1)	1 x 4	4

(c)

Level One

States a few simple benefits for both the environment (eg forest is conserved) and for the local people (eg jobs in tourism) OR briefly explains just one benefit. Answer may be general rather than specific to the chosen study.

1

Level Two

Briefly explains some benefits for both the environment and the local people (eg local farmers increase their income by selling food to tourists). Answer can be related to the chosen study.

2 – 4

Level Three

Explains in some detail how the organisation of ecotourism (eg numbers of visitors and types of transport allowed, the scale and ownership of facilities) benefits both the environment and the locals. Answer is clearly about the chosen study.

5 – 6 6

Total: 20 marks

Assessment Grid

Question A1

Question	Assessment Objective	Mark
(a)(i)(ii)	Skills	3
(iii)	Understanding	2
(b) (i)(ii)	Skills	3
(b) (iii)	Understanding	2
(iv)	Application	4
(v)	Understanding	1
(c)(i)	Application	2
(ii)(iii)	Understanding	4
(d)	Knowledge	9
	Knowledge	9
	Understanding	9
	Skills	6
	Application	6
	Total	30

Question A2

Question	Assessment Objective	Mark
(a)(i)	Skills	1
(ii)	Application	1
(b) (i)	Skills	4
(b) (ii)	Understanding	3
(b) (iii)	Application	3
(iv) (v)	Understanding	3
(c) (i)	Skills	1
(c) (ii)	Application/Understanding	5
(d)	Knowledge	9
	Knowledge	9
	Understanding	9
	Skills	6
	Application	6
	Total	30

Question B3

Question	Assessment Objective	Mark
(a)(i)(ii)	Skills	3
(b)(i)	Skills	1
(ii)	Application/Understanding	4
(c)(i)(ii)	Application/Understanding	6
(d)	Knowledge	6
	Knowledge	6
	Understanding	6
	Skills	4
	Application	4
	Total	20

Question B4

Question	Assessment Objective	Mark
(a)(i)	Knowledge	3
(ii)	Understanding	3
(b)(i)	Skills	4
(b)(ii)	Application	4
(c)	Knowledge	3
	Understanding	3
2	Knowledge	6
	Understanding	6
	Skills	4
	Application	4
	Total	20

Question C5

Question	Assessment Objective	Mark
(a)(i)(ii)	Skills	4
(a)(iii)	Understanding	2
(a)(iv)	Application	4
(b)(i)(ii)	Knowledge	4
(c)	Knowledge	2
	Understanding	4
	Knowledge	6
	Understanding	6
	Skills	4
	Application	4
	Total	20

Question C6

Question	Assessment Objective	Mark
(a)(i)	Skills	1
(a)(ii)	Knowledge	3
(b)(i)(ii)	Skills	3
(b)(iii)	Understanding	3
(b)(iv)	Application	4
(c)	Knowledge	3
	Understanding	3
	Knowledge	6
	Understanding	6
	Skills	4
	Application	4
	Total	20

ASSESSMENT OF QUALITY OF WRITTEN COMMUNICATION

Candidates will be assessed for the quality of written communication according to the following criteria:

Level 3	4 – 5	Candidates write in sentences which are clear, structured and coherent. They spell, punctuate and use the rules of grammar with few errors using a range of specialist terms appropriately and with precision.
Level 2	2 – 3	Candidates write in sentences with a clear and structured style. They spell, punctuate and use the rules of grammar with considerable accuracy.
Level 1	1	Candidates write in sentences with a limited structure. They spell, punctuate and use the rules of grammar with reasonable accuracy