OCR
RECOGNISING ACHIEVEMENT

GCSE

Geography A

General Certificate of Secondary Education **GCSE 1986**

General Certificate of Secondary Education (Short Course) **GCSE 1086**

Entry Level Certificate **ELC 3986**

Mark Schemes for the Components

June 2006

1986/1086/3986/MS/R/06

Oxford Cambridge and RSA Examinations

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General Certificate of Secondary Education

GCSE (Short Course) Geography A (1086)
GCSE Geography A (1986)

MARK SCHEME ON THE COMPONENTS

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Mark Scheme 3986/03
June 2006

1 a) 6.5 on Richter scale/strength of the earthquake/measurement (1)

b) Bam/Iran (1)

c) Bam/Iran (1)

d) All three accurately plotted = 2 marks
One or two correct = 1 mark
Bars used = 1 mark (3)

e) Possible reasons

- Most buildings are earthquake proof
- Examples of methods used such as steel frame, deep foundations, rubber base and use of good quality building materials
- Rich country so that it can afford good building materials
- Regulations are enforced
- Emergency drills/earthquake plans drawn up.

Two reasons given, even if closely related. (2)

Total 8 marks

2 a) Meander (1)

b) i) Valid attempt to show bends of the river
in a reasonably accurate position within the frame

2 @ 1 mark. (2)

ii) Part or all of the flat land shaded in, without incursions on to the slopes to reduce significantly the percentage that is accurate. (1)

c) i) Bends join up/ox-bow lake formed. (1)

ii) River erodes on the (outside) bends
breaks through because of force of water in time of flood
Comment towards one of these points that demonstrates understanding. (1)

d) i) Surface water around river/standing water on valley floor or similar. (1)

ii) Because of the steeper sloping/higher land away from the valley floor especially in the front of the photo. (1)

Total 8 marks

3 a) Few people physical – dry (desert) areas
Few people human – lack of jobs
A lot of people physical – warm climate
A lot of people human – many factories.

4 @ 1 mark (4)

b) i) Cannot see any houses/settlements
Only a few houses in the distance
Mainly empty spaces
An idea like one of these. (1)

ii) Possible reasons:

- Snow covered/too cold for farming and settlement
- Mountains/volcanoes present in the background
- Looks too dry/desert-like in the foreground
- Bare ground and loose rocks/poor soil
- Little grass/vegetation cover.

One well developed point may be able to count as a separate reason.

3 @ 1 mark (3)

Total 8 marks

4 a) CBD/town centre
Show the individual squares
Show the long strips/oblongs
No zone/outside the built-up area/countryside.

4 @ 1 mark (4)

b) Corner shops are individual near to where people live/convenience in terms of access or goods
Shopping parade is more than one shop/many shops.

One idea along these lines (1)

c) Easiest method of answering is from point of view of advantages for shopping by car such as;

- Some sell goods that are too bulky/heavy to carry home
- At others people do a big weekly/monthly shop
- Has a large car park and easy access by motorway.

Accept other sensible/realistic suggestions such as big shops/ more space for them

2 @ 1 mark or one point well developed/elaborated (2)

d) Z is not as close to the motorway/ further away from built-up area
Significance of this explained for access/avoiding congestion.

2 @ 1 mark (2)

Total 9 marks

5 a) i) 3 or 4 plots accurate = 2 marks
1 or 2 plots correct = 1 mark
Line continued so that it passes through all the points = 1 mark (3)

ii) Clear intention for 1995-2000 (1)

b) i) Advantages such as:

- Provides jobs
- Brings in money
- Improved public services eg water, roads, etc.
- Wildlife and scenery protected for tourists to see
- And many more possibilities.

2 @ 1 mark (2)

ii) Possible answers:

- Footpath erosion
- Sewage/water pollution
- Clearance of trees for new hotels, etc.
- Loss of wildlife habitats
- Destruction of coral reefs
- And others provided related to the environment

2 @ 1 mark (2)

Total 8 marks

6 a) i) Soot and dirt/nitrogen oxides = 1 mark

ii) Carbon dioxide = 1 mark (2)

b) Nitrogen oxides and sulphur dioxide (1)

c) Use cleaner fuels eg natural gas
Fit catalytic converters
Use more public transport
People walk more instead of using their cars
Increase car/petrol taxes even more to reduce car use.

Any two ways such as these. 2 @ 1 mark (2)

d) i) Power Station/makes electricity/factory (1)

ii) Winds move it (1)

iii) Have lost their branches and leaves/are dead or dying (1)

iv) Trees are healthy in Scotland because wind is blowing gases away from them; this is the idea needed, however stated. (1)

Total 9 marks

TEST TOTAL: 50 MARKS

Question	K	U	A	S
1(a)				1
1(b)				1
1(c)				1
1(d)				3
1(e)	2			
2(a)	1			
2(b)i				2
2(b)ii		1		
2(c)i		1		
2(c)ii		1		
2d)i		1		
2(d)ii			1	
3(a)	4			
3(b)i			1	
3(b)ii			1	2
4(a)	1	1		2
4(b)		1		
4(c)	2			
4(d)		1	1	
5(a)i				3
5(a)ii				1
5(b)i	2			
5(b)ii	2			
6(a)i and 6(a)ii				2
6(b)				1
6(c)	2			
6(d)i		1		
6(d)ii				1
6(d)iii		1		
6(d)iv		1		
Totals	**16**	**10**	**4**	**20**

Mark Scheme 1086/01
June 2006

1 **(a)** Ideas such as factory shown in Photograph C is:
Older;
Brick built compared with prefabricated sheets;
More likely to pollute/has chimney which D does not etc

Comparisons needed for 2 @ 1 mark **[2]**

(b) **(i)** Any suitable input eg metals, steel, fuel/coal, raw materials etc.

Eg clutches/car components/engine parts, small light products etc.

2 at 1 mark **[2]**

(ii) Ideas such as:

- Raw materials used in factory C were bulky/difficult to transport;
- therefore location close to raw materials reduced transport costs/least cost location;
- raw materials used in D obtained from a variety of locations/imported;
- improved transport technology means location close to raw materials no longer a significant factor

2 at 1 mark or development **[2]**

(c) **Level 1 (1-2 marks)**
Simple statements explaining the location of a distribution industry. (eg good roads nearby, near urban areas, central location etc)

Level 2 (3-4 marks)
More specific statements explaining the location of a distribution industry.

(Central location in UK for access from all parts of country/to collect flowers; good road access to collect/distribute flowers; ease of access for workers from nearby urban areas; large areas of rural land available which is relatively low cost etc)

Level 3 (5 marks)
Uses named example.
Detailed and accurate place specific statements explaining the location of a distribution industry. (no need to be exhaustive).

(eg Bunches Florapost at Newstead near Junction 27 of M1. Central location in UK close to junction 27 of M1 for access from all parts of country/to collect flowers; good road access using A611/A606 to collect distribute flowers; ease of access for workers from nearby urban areas eg Hucknall/Mansfield/Nottingham; large areas of land available which is relatively low cost due to government/EU incentives given for development of land in former coal mining village etc)

No named eg L2 maximum (3 marks)

[5]

(d) **(i)** Features such as:
sandy/large/sheltered beach
blue/calm sea
bay/headland coastline
high temperatures
clear skies
cliff coastline etc.

3 @ 1 mark **[3]**

(ii) Ideas such as:
littering beach/sea
sewage disposal in sea
removal of vegetation for hotels/apartment etc
visual impact of new hotels etc.

2 @ 1 mark **[2]**

(iii) Using it now without destroying it for future generations.

1 mark **[1]**

(iv) Ideas such as:
limit numbers of tourists
treatment of sewage
litter bins/regular collections
fence off sensitive areas
limit height of buildings
ensure planning permission only granted if buildings are in keeping with environment/traditional style
environmental tax; etc.

2 @ 1 or development **[2]**

TOTAL [19]

2 **(a)** 5 **[1]**

(b) **(i)** Sulphur / nitrogen **[1]**

(ii) Burning of fossil fuels
Emissions / gases / smoke / rise / go into the air
Absorbed in clouds / mixes with water
Falls from sky **[3]**

(c) **(i)** Graph completion **[1]**

(ii) Norway **[1]**

(iii) Other countries burn a lot of fossil fuels / create more sulphur / Sweden creates less sulphur
Prevailing winds carry deposits to Sweden
Sweden is less industrialised / other countries are more industrialised

2 @ 1 **[2]**

(iv) Ideas such as:
Acidified rivers and lakes
Crops / trees/ animals / fish killed / damaged
Sulphur dioxide pollution in water supply results in illness (specified) for people
Limestone / stonework is eroded
Financial consequences of effects on fishing, farming, forestry, water supply, building maintenance, etc
Leaches minerals from soils **[3]**

(v) Ideas such as:
International cooperation to reduce sulphur emissions
Scrubbers to remove sulphur dioxide from power station emissions
Use low sulphur coal
Crushing and washing coal to reduce sulphur content
Liming lakes / neutralising the lake water
Alternative energy – nuclear, wind, hydro – (max 1)
Low sulphur vehicle fuels
Catalytic converters to reduce sulphur in vehicle emissions
Energy conservation in new vehicles and homes

2 @ 1 **[2]**

(d) Level 1 (1 – 2 marks)
Simple statements which describe the effects of global warming
e.g. sea levels rise, temperature get warmer, more droughts, etc

Level 2 (3 – 4 marks)
More specific statements which describe the effects
e.g. sea levels rise because ice caps and glaciers melt
lowland coasts and islands will be submerged by rising level of sea water
farming patterns will change as temperatures increase
animal habitats will be threatened by drought

Level 3 (5 marks)
Uses named example such as Fens, Maldives
Detailed and accurate place specific statements
e.g. Low –lying areas of the U.K. such as the Fens could be flooded unless sea defences are strengthened, which would be very expensive
Deserts will advance from North Africa into southern Europe leading to migration of wildlife **[5]**

Total [19]

3 (a) (i) Yeotown Farm

1 mark **[1]**

(ii) Bishop's Tawton ….. Chapelton……Harrocott

3 @ 1 mark **[3]**

(iii) 581261

1 mark **[1]**

(iv) Journey on foot or by car both acceptable.
Eg 1 Walk along minor road (1 mark),
Use footpath (1 mark),
Crossing river / footbridge (1 mark)
2 Drive along minor road / junction with the main road (1 mark), travel South along main road/on west side of river / on A377
2 @ 1 mark **[2]**

(b) (i) on cross section

3 @ 1 **[3]**

(ii) 1 – 9 metres

1 mark **[1]**

(c) (i) North
1 mark **[1]**

(ii) Ideas such as:
flooding;
erosion of river bank (on outer bend of meander)

2 @ 1 mark **[2]**

(iii) Level 1 (1-2 marks)
Simple statements which describe the River Taw and its valley (eg flat/gently sloping, shallow, low, not straight/winding etc)

Level 2 (3-4 marks)
More specific statements largely based on photographic evidence. (eg flat land on valley floor; with gently sloping sides, shallow in parts where there is white water though some deeper sections, meandering etc)

Level 3 (5 marks)
More specific statements including specific reference to map evidence. (eg flat land on valley floor half a km in width, with gently sloping sides reaching to heights of c. 100 meters, 10-25 metres wide shallow in parts where there is white water though some deeper sections, meandering close to road bridge though becomes straighter further north. etc)

[5]

TOTAL [19]

Assessment of quality of written communication

The ability of the candidate to communicate in written form should be assessed by forming an overview based across the paper, however those questions which involve extensive writing (e.g. case studies) are likely to be most useful in your assessment.

0 Candidates makes little attempt throughout the paper to communicate in written form.

1 Candidate communicates clearly by writing brief, simplistic terms in some answers.

2 Candidate generally communicates effectively, using specialist terms in some answers.

3 Candidates communicates effectively throughout and uses specialist terms where appropriate.

Mark Scheme 1086/02
June 2006

1 (a) (i) Q = Infiltration
R = Percolation

2 at 1 mark **[2]**

(ii) Percentage of groundwater flow is greater in drainage basin which is covered by woodland (1)
More groundwater flow in Fig. 1a
2nd mark for elaboration (e.g. 25% - 30% compared with 10%; 2½ - 3 times the proportion forms groundwater flow in wooded area than farmed drainage basin etc

[2]

(iii) Ideas such as:
- more vegetation in wooded area therefore larger proportion of evapo-transpiration
- surface run-off is more likely in the drainage basin which is used for farming as there are less large plants/roots to obstruct surface water movement
- soils are compressed / compacted by ploughing / animal grazing in farming area therefore surface run off more likely
- protection of trees in wooded area prevents compression of soil by rainfall which would occur on bare soil of farmed area, therefore infiltration more likely
- roots in wooded area break up soil/encourage infiltration
- interception by leaves prevents rain failing onto soil
- saturation occurs more quickly on exposed farmland with no trees

4 at 1 mark **[4]**

(b) Ideas such as:
Less evapo-transpiration would be likely to occur (✓D); as the amount of vegetation would be reduced (✓E);
Surface run off / flash floods would be likely to increase (✓D); as a result of impermeable surfaces / tarmac / roads / roofs etc (✓E)
Groundwater flow would be less likely (✓D); because of artificial drains (✓E)
More evaporation would be likely (✓D) due to impermeable surfaces (✓E)
Water moves through basin to river more quickly (✓D) due to artificial drains (✓E)

Annotate using D and E. 1 mark reserve for D and E. **[4]**

(c) Level 1 (1-3 marks)
Statements including limited detail describing the causes of flooding.
(e.g. heavy rain, impermeable rocks, flood plains built on etc)

Level 2 (4-6 marks)
More developed statements describing the causes of flooding.
(e.g. heavy rain falling over a relatively short period, impermeable rocks encouraging overland flow and rapidly raising river levels, underlying rocks saturated, building on flood plain encouraging rapid movement of water to river/constricting flow etc)

Level 3 (7 marks)
Uses named example (e.g. River Lyn).
Comprehensive and accurate place specific statements.
At least three developed statements describing different causes of flooding.
(e.g. thunderstorms associated with frontal depression formed torrential rain – 229mm near Longstone Barrow on Exmoor, saturated from previous rainfall as it had rained for 12 of the previous 14 days, impermeable rocks of Exmoor encouraging overland flow and rapidly raising river levels, river had been diverted and its channel made narrower due to building of hotels in Lynmouth, bridges over river trapped boulders and formed temporary dams etc)

LEDC = L2 (4 max)
No named e.g. = L2 (6 max)
Sea flooding = L2 (4 max) **[7]**

TOTAL [19]

2 (a) (i) As the population size increases the number of settlements decreases/ there are more small settlements than big settlements
2nd mark for use of figures from graph, e.g. there are 117 settlements with less than 1000 population or only 1 settlement with more than 250,000 people

4 sets of figures with no relationship = 1 max **[2]**

(ii) More services / large variety are found in larger settlements
Higher order services are found in larger settlements
Services such as theatres are only found in cities
The only services found in villages are pubs / general stores
All settlements, except hamlets, contain services **[2]**

(b) Specialist or high order services / shops
Require large threshold population
Large population / customer base is found in larger settlements
Found with other specialist / high order shops to attract customers
More potential customers means more potential profit
More accessible to customers / route focus
Accessibility means larger sphere of influence
More tourists in cities to extend customer base / day out to shop **[5]**

(c) Different order services are together not in different centres
Large shopping centres may be located in lower order settlements / villages
Higher order services lost from towns and cities / CBD
New developments are multi-functional containing a variety of services, including entertainment and sport
Changes hierarchy of shops and services **[3]**

(d) Level 1 (1 – 3 marks)
Statements including limited detail which describe why people move and / or consequences for rural areas
Causes: e.g. push factors such as traffic congestion, air pollution,
pull factors such as more relaxed lifestyle, less crime/social problems
change in lifestyle etc.
Consequences: village populations grow rapidly, influx of newcomers, etc.
jobs for locals

Level 2 (4 – 6 marks)
More developed statements which describe the causes of migration and / or consequences for rural areas
Causes: e.g. growth of commuting with development of transport links
retirement so not tied to work location
more footloose industries locating in rural areas so people follow their jobs
IT developments allow more work to be done from home
Consequences: character of villages change with new expensive housing estates
tension between villagers and newcomers such as inability to afford housing, examples of job creation
newcomers may join fight against school closures etc.

Level 3 (7 marks)
Uses named example such as villages in Worcestershire
Comprehensive and place specific statements
Must refer to both causes of migration and consequences for rural area
Causes: e.g. M5 allow commuters to travel to jobs in Birmingham in less than one hour
Consequences: Many villages such as Bewdley now contain a high proportion of older residents who have retired to the village, this has pushed up house prices out of reach of young local residents

No named example = L2 (6 max)
Non-UK example = L2 (4 max)
Rural to urban migration = 0
New train = L2 (6 max) **[7]**

Total [19]

3 (a) (i) Ideas such as factory shown in Photograph C is:
Older;
Brick built compared with prefabricated sheets;
More likely to pollute/has chimney which D does not etc
Darker / not as bright – i.e. colour

Comparison needed for 1 mark **[1]**

Differences such as:
C is closer to centre of city
C is nearer to River Don
C is near an 'A' road – D is near motorway
C is NE of Sheffield centre/Don Valley/between Sheffield and Rotherham whilst D is SE of Sheffield
C is in built up area / Sheffield whilst D is on fringe / outside urban area / in rural area / outside Sheffield
C is near river / D is near road

2 @ 1 mark **[2]**

(b) (i) Definition of inputs: e.g. things which are brought into the factory / used in factory / manufactured
Definition of outputs: e.g. items or goods which are made / leave factory / sold at market

2 at 1 mark **[2]**

(ii) Ideas such as:
C - raw materials were difficult to transport
- reduced transport costs / reduced frequency of transport/expense of transport
- small storage capability

D - raw materials come from variety of locations / imported
- improved transport of raw materials / footloose
- easier energy movement – e.g. pipeline / national grid

4 at 1 mark **[4]**

(iii) Ideas such as:
- area has established reputation/name for that product;
- skilled workforce available in the area / loyal / trained / established
- infrastructure exists in area for that industry/ e.g. training establishments / supporting industries
- cost of moving to another location may be too great;
- reduced significance of original factors due to government policy / support / grants
- family link e.g. Cadbury
- inertia

3 at 1 mark **[3]**

(d) Level 1 (1-3 marks)
Statements including limited detail explaining the location of a distribution industry.
(e.g. good roads nearby, near urban areas, central location etc)

Level 2 (4-6 marks)
More developed statements explaining the location of a distribution industry.

(Central location in UK for access from all parts of country/to collect flowers; good road access to collect distribute flowers; ease of access for workers from nearby urban areas; large areas of rural land available which is relatively low cost etc)

Level 3 (7 marks)
Comprehensive and accurate place specific statements.
Must have at least three Level 2 statements explaining the location of a distribution industry.
(e.g. Bunches Florapost at Newstead near Junction 27 of M1. Central location in UK close to junction 27 of M1 for access from all parts of country/to collect flowers;
good road access using A611/A606 to collect distribute flowers; ease of access for workers from nearby urban areas e.g. Hucknall/Mansfield/Nottingham; large areas of land available which is relatively low cost due to government/EU incentives given for development of land in former coal mining village etc)

No named e.g. = L2 (6 max)
Non-UK e.g. = L2 (4 max)
If not distribution industry = L2 (4 max) **[7]**

TOTAL [19]

4 (a) Rain / precipitation with pH value of less than 6.0
Acidity results from:
Burn fossil fuels / vehicle emissions / factory emissions
Rise / go into air
Acids absorbed / mix with water
Fall as rain
Named gas – sulphur dioxide / nitrogen oxide **[4]**

(b) (i) Norway has a greater proportion from outside the country than Italy
2nd mark from use of figures, e.g. Norway receives over 90% from outside the country but Italy receive less than 40%

Allow 2 marks for accurate figures – i.e.
Italy 60% - 70% inside; 30% - 40% outside
Norway <10% inside; >90% outside **[2]**

(ii) Prevailing winds
Countries to the south of Norway produce a lot of acid rain emissions
Italy produces more acid rain in the country due to burning more fossil fuels / more industrialised

2 @ 1 **[2]**

(c) Level 1 (1-3 marks)
Statements including limited detail which describe the effects of acid rain on people and / or environment, e.g.
Rivers and lakes become more acid
Trees are damaged
Buildings are eroded
Health problems due to contaminated water
Increased avalanches

Level 2 (4-6 marks)
More developed statements which describe the effects of acid rain on people and / or environment, e.g.
Aquatic and animal life in lakes decrease as acidity increases
Acidification of ground water damages tree roots
Stonework in urban areas has been blackened and weathered by chemical action
Acidification of groundwater makes water undrinkable and causes diarrhoea
Aluminium in water linked with pre-senile dementia / Alzheimers
Avalanches impact on tourism

Level 3 (7 marks)
Uses named and located examples
Detailed and accurate place specific statements
Must refer to both people and environment
18,000 Swedish lakes now contain water with pH level below 5.5, 4,000 of these lakes are ‘dead’ with no living creatures.
1 in 12 trees in the Black Forest in Germany have been affected as their foliage has died as a result of acid rain.

No named e.g. = L2 (6 max) **[7]**

(d) Ideas such as:
International cooperation to reduce sulphur emissions / government agreements
Scrubbers to remove sulphur dioxide from power station emissions
Use low sulphur coal
Crushing and washing coal
Liming lakes
Alternative energy – nuclear, wind, hydro / cleaner
Low sulphur vehicle fuels / LPG / hydrogen / hybrid
Catalytic converters to reduce sulphur in vehicle emissions
Energy conservation in new vehicles and homes
Varnishing / protective coating on statues
Methods to reduce car pollution – e.g. sharing / increased public transport
Fines / sanctions – if targets not met

4 at 1 mark **[4]**

Total [19]

5 **(a)** 2.4 to 2.6 km = 2 marks
2.3 to 2.7 km = 1 mark
Credit answer in metres. **[2]**

(b) **(i)** Completion of cross section
- steep slope
- top of slope >80m
- 80m on grid line 58
- fall and rise beyond grid line 58

3 at 1 mark **[3]**

(ii) On cross section

2 @ 1 mark **[2]**

(c) **(i)** North

1 mark **[1]**

(ii) Ideas such as:
flooding;
erosion of river bank / erodes track / divert railway track

2 @ 1 mark **[2]**

(iii) Ideas such as:
river has changed its course / shorter/ straightened
former loop of meander cut off /ox-bow lake;
erosion on outside bank and deposition on inner bank;
tightening of meander/migration of bend;
cut through in time of flood;
sealing of loop by deposition/lake eventually dries up etc.

3 @ 1 mark or development **[3]**

(iv)

L1 (1-2 marks	**L2 (3-4 marks)**
- Wide river	- Wide river 10-25m
- Meanders / winding	- extreme / big meanders
- Tributary / streams joining	- many tributaries / confluence
- Lakes	- lakes are changing course of river / ox-bow lakes
- Lowland / lower course	- tidal elements of river
- Flood plain / flooding / wide valley floors	- flood plain 500m
- white water / rapids	- river flows northwards
- rocks in river / shallower river	- variable depth of river
- slow flowing river	- gentle gradient on long course
- gentle / steep valley sides	- steeper on E than W
- side of river collapsed	- eroded / slumped / collapsed banks
- flat valley floor	

L3 (5-6 marks) – map evidenc: GR (4 or 6 Fig), height, name, interpretation of map symbol

1 L2 answer gives access to L3 = 5 mark

[6]
TOTAL [19]

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2 Candidate generally communicates effectively, using specialist terms in some answers.

3 Candidates communicate effectively throughout and use specialist terms where appropriate.

Mark Scheme 1986/01
June 2006

1 (a) (i) Madeira **[1]**

(ii) Along / near Mid Atlantic Ridge; middle of the Atlantic Ocean; in a line from north to south; along plate boundaries; at the edge of the plates etc. **[1]**

(iii) Not on / near plate boundary/margin; **[1]**

(b) Iceland is on a plate boundary
Plates diverging / move apart / constructive margin
As a result of convection currents
Gap in earth's crust
Pressure build up / release
Magma / molten rock rises up / escapes / fills gap / moves up
Volcanoes rise above sea level / magma solidifies
No double credit for text and diagram **[4]**

(c) Different size of eruption – explosive / slow flow, bigger / smaller, more / less explosive
Type of material – thick and sticky magma / lava results in build up of pressure and more violent explosion
Population density in affected area
Degree of implementation of safety measures
Degree of prediction and preparation
Frequency of eruption
Length of time of eruption
Quality of emergency services
Quality of housing
Degree of evacuation planning

3 @ 1 **[3]**

(d) Level 1 (1 – 2 marks)
Simple statements which describe the effects of an eruption
e.g. people killed; people evacuated; large area covered by ash and lava; areas of forest destroyed; etc

Level 2 (3 – 4 marks)
More specific statements which describe the effects
e.g. whole villages were destroyed; 23 people were killed by one eruption; airport was closed; people were evacuated from 2/3 of the island; 50% of the population left the island; etc.

Level 3 (5 marks)
Uses named example such as Soufriere Hills volcano on Montserrat
Detailed and accurate place specific statements
e.g. Plymouth, the capital city became a ghost town as most residents were evacuated;
5000 people left the island to settle on nearby islands such as Antigua;

No named example = level 2 maximum (3 marks) **[5]**

(e) Ideas such as:
Fertile soil – greater yield of crops
Tourist industry – accommodation and souvenirs / or specific jobs
Minerals – sulphur, pumice is mined, gold, diamonds
Hot springs – bathing, health spas
Geothermal power – heating and electricity
Attractive scenery
Research into volcanoes
Spiritual / religion
Pure water filtered through rocks
Inspires artists / writers

(NB: Max 2 on first five lines) **[4]**

Total [19]

2 (a) (i) Mexico China Vietnam **[2]**

(ii) Any example of an LEDC shown on Fig 3a (eg Mexico, China, Vietnam, India)
Any example of an MEDC shown on Fig 3a (eg Canada, UK; Russia)

Two correct country names = 1 mark **[1]**

(iii) Any ideas which refer to pattern of migration rather than individual countries eg:
- migrants are mainly from LEDCs / few migrants from MEDCs
- there are most migrants from Central America
- there are many migrants from Asia
- or could refer to relatively small amount from eg Europe

2 @ 1 mark **[2]**

(iv) Ideas such as:
Lack of qualifications / skills / education / experience
Unable to obtain employment;
Thus are unable to buy homes / live in poor conditions / overcrowding
Discrimination may occur;
Exploitation by gangmasters / factory owners etc.
Low paid jobs
They are illegal
Lack of access to goods / services or examples

2 @ 1 mark **[2]**

(b) Benefits such as:
Provides a supply of workers;
Who will often accept low pay/for low salaries / cheap labour
Prepared to do dirty / unskilled jobs;
Cultural advantages / carnivals / food outlets / allows a multi-cultural society
Some skilled migration e.g. doctors / sportsmen etc.
More tax payers
Larger market

Problems such as:
Pressure on jobs/unemployment;
Ethnic groups may not integrate;
Racial tension;
Pressure on services (or examples such as NHS to MAX 2)
Pressure on housing
Pressure on food supplies
Gangs / terrorism / crime (developed)
Impact in relation to benefits
Impact in relation to processing immigrants

4 @ 1 or development

MAX 3 on Advantages/Disadvantages **[4]**

(c) **(i)** Movement of people from the countryside / to the cities **[1]**

(ii) Pull – attractions of the destination / city.
Push – things migrants want to escape from.

2 @ 1 mark **[2]**

(d) **Levels of response marking**

Level 1 (1 – 2 marks)
Simple statements which explain reasons for rural to urban migration, either pulls or pushes.

(eg more jobs, better services, not enough food, better standard of living/quality of life, to live with relatives / friends, better education).

Level 2 (3 to 4 marks)
More specific statements which explain reasons for rural to urban migration, either pulls or pushes.

(eg more jobs in the informal sector/factories/or examples, greater access to range of services or examples such as schools/hospitals/clinics, can buy food from markets/shops; farmland unproductive/drought)

Level 3 (5 marks)
Uses named example.
Detailed and accurate place specific statements (no need to be exhaustive).

(eg from surrounding rural areas to Sao Paulo/Rio de Janeiro – people living in valley of Sao Francisco river lost best quality agricultural land when dams and reservoirs were built along it, they can make money in informal sector by offering shoe shine/selling fruit to tourists on Rio's famous beaches/ Placa de Se and Placa de Republica, the two main squares in the city centre of Sao Paulo, the city offers hope eg in the Cinqua Pora development (Sao Paulo) basic concrete houses are being built with piped water and sewage pipes, even in the favelas which have developed on the steep hillsides the people have better access to primary health care than in the countryside)

No named eg L2 maximum **[5]**

TOTAL [19]

3 (a) (i) Graph completion **[2]**

(ii) Kenya

Egypt

2 @ 1 mark **[2]**

(iii) Ideas such as:
High level of education / skills / qualifications;
High demand for services or examples nursing, banking, shops, offices, schools etc.
Tertiary sector tends to be well paid employment;
Jobs in tourism;
Lack of employment on farms due to mechanisation
Lack of employment in factories due to foreign competition
Lack of employment in mines due to exhaustion

2 @ 1 mark **[2]**

(b) (i) Ideas such as factory shown in Photograph C is:
Older;
Brick built compared with prefabricated sheets;
More likely to pollute/has chimney which D does not etc

Comparisons needed for 2 @ 1 mark **[2]**

(ii) Primary…….tertiary…….secondary

All 3 correct = 2 marks

1 or 2 correct = 1 mark **[2]**

(c) (i) Any suitable input eg metals, steel, fuel / coal, raw materials etc

Eg clutches / car components / engine parts / finished products / small light products etc.

2 at 1 mark **[2]**

(ii) Ideas such as:
- Raw materials used in factory C were bulky / difficult to transport;
- reduced transport costs / least cost location;
- raw materials used in D obtained from a variety of locations / imported;
- improved transport technology means location close to raw materials no longer a significant factor in D

2 at 1 mark or development **[2]**

(d) Level 1 (1-2 marks)
Simple statements explaining the location of a distribution industry.
(eg good roads nearby, near urban areas, central location etc)

Level 2 (3-4 marks)
More specific statements explaining the location of a distribution industry.

(Central location in UK for access from all parts of country/to collect flowers; good road access to collect/distribute flowers; ease of access for workers from nearby urban areas; large areas of rural land available which is relatively low cost etc).

Level 3 (5 marks)
Uses named example.
Detailed and accurate place specific statements explaining the location of a distribution industry. (no need to be exhaustive).

(eg Bunches Florapost at Newstead near Junction 27 of M1. Central location in UK close to junction 27 of M1 for access from all parts of country/to collect flowers; good road access using A611/A606 to collect distribute flowers; ease of access for workers from nearby urban areas eg Hucknall/Mansfield/Nottingham; large areas of land available which is relatively low cost due to government/EU incentives given for development of land in former coal mining village etc).

No named e.g. L2 maximum (Max 3 marks) **[5]**

TOTAL [19]

4 (a) 5 **[1]**

(b) (i) Sulphur / nitrogen **[1]**

(ii) Burning of fossil fuels
Emissions / gases / smoke rise / go into the air
Absorbed in clouds/mixes with water
Falls from sky **[3]**

(c) (i) Graph completion **[1]**

(ii) Norway **[1]**

(iii) Other countries burn a lot of fossil fuels / create more sulphur / Sweden creates less sulphur
Prevailing winds carry deposits to Sweden
Sweden is less industrialised / other countries are more industrialised

2 @ 1 **[2]**

(iv) Ideas such as:
Acidified rivers and lakes
Crops / trees / animals / fish killed / damaged
Pollution in water supply results in illness (specified) for people
Limestone / stonework is eroded
Financial consequences of effects on fishing, farming, forestry, water supply, building maintenance etc.
Leaches minerals from soil **[3]**

(v) Ideas such as:
International cooperation to reduce sulphur emissions
Scrubbers to remove sulphur dioxide from power station emissions
Use low sulphur coal
Crushing and washing coal to reduce sulphur content
Liming lakes / neutralising the lake water
Alternative energy – nuclear, wind, hydro – (max 1)
Low sulphur vehicle fuels
Catalytic converters to reduce sulphur in vehicle emissions
Energy conservation in new vehicles and homes

2 @ 1 **[2]**

(d) Level 1 (1 – 2 marks)
Simple statements which describe the effects of global warming
e.g. sea levels rise, temperature get warmer, more droughts, etc

Level 2 (3 – 4 marks)
More specific statements which describe the effects
e.g. sea levels rise because ice caps and glaciers melt
lowland coasts and islands will be submerged by rising level of sea water
farming patterns will change as temperatures increase
animal habitats will be threatened by drought

Level 3 (5 marks)
Uses named example such as Fens, Maldives
Detailed and accurate place specific statements
e.g. Low –lying areas of the U.K. such as the Fens could be flooded unless sea defences are strengthened, which would be very expensive
Deserts will advance from North Africa into southern Europe leading to migration of wildlife **[5]**

Total [19]

Assessment of quality of written communication

The ability of the candidate to communicate in written form should be assessed by forming an overview based across the paper, however those questions which involve extensive writing (e.g. case studies) are likely to be most useful in your assessment.

0 Candidate makes little attempt throughout the paper to communicate in written form.

1 Candidate is able to communicate in written form, though the message is not always clear.

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4 Candidate communicates effectively throughout and uses specialist terms where appropriate.

Mark Scheme 1986/02
June 2006

1 **(a)** **(i)** Line from S.W. / N.E.
Most in S. / S.W. Iceland
Where rocks / land are less than two million years old / active volcano zone
Above / near / along plate boundary / where plates diverge
Clustered
One volcano on west coast / on land more than 2 million years old
Few in the sea 2 @ 1 **[2]**

(ii) Plates diverging / move apart / constructive plate boundary
Crack in earth's crust / gap / weakness
Due to convection currents
Molten rock rises up from mantle / magma rises up
Pressure build up / release
Spills onto surface / solidifies
Volcanoes rise above sea level
Process continues as plate continually pulled apart

Mark text then diagram. Diagram must be labelled to credit. **[5]**

(b) Population density in affected areas
Jobs – e.g. farming (why people live there)
Idea of prediction – e.g. lasers, monitoring gases, movement of magma, technology
Idea of preparation – e.g. defences, early warning systems, house structure, evacuation routes, lava channels
Perception of danger – awareness / education / panic
Type of eruption – explosive / slow flow / severity
Type of magma – thick / sticky – more violent eruption
Rich or poor country – ability to react

LEDC / MEDC = 0 by itself **[5]**

(c) **Level 1 (1 – 3 marks)**
Statements including limited detail which describe the effects of an eruption on people and / or the environment
e.g. people killed; people evacuated; large area covered by ash and lava
areas of forest destroyed; homelessness etc

Level 2 (4 – 6 marks)
More developed statements which describe the effects on people and / or the environment
e.g. whole villages were destroyed; 23 people were killed by one eruption
airport was closed; people were evacuated from 2/3 of the island; 50% of the population left the island; etc.

Level 3 (7 marks)
Uses named example such as Soufriere Hills volcano on Montserrat
Comprehensive and place specific statements which must refer to both people and the environment
Must contain 3 level 2 statements and be place specific
e.g. Plymouth, the capital city became a ghost town as most residents were evacuated
5000 people left the island to settle on nearby islands such as Antigua

No named example = level 2 maximum (6 marks) **[7]**

Total [19]

2 **(a)** **(i)** Q = Infiltration
R = Percolation

2 at 1 mark **[2]**

(ii) Percentage of groundwater flow is greater in drainage basin which is covered by woodland (1)
More groundwater flow in Fig. 2a
2nd mark for elaboration (e.g. 25% - 30% compared with 10%; 2½ - 3 times the proportion forms groundwater flow in wooded area than farmed drainage basin etc

[2]

(iii) Ideas such as:
- more vegetation in wooded area therefore larger proportion of evapo-transpiration
- surface run-off is more likely in the drainage basin which is used for farming as there are less large plants/roots to obstruct surface water movement
- soils are compressed / compacted by ploughing / animal grazing in farming area therefore surface run off more likely
- protection of trees in wooded area prevents compression of soil by rainfall which would occur on bare soil of farmed area, therefore infiltration more likely
- roots in wooded area break up soil/encourage infiltration
- interception by leaves prevents rain failing onto soil
- saturation occurs more quickly on exposed farmland with no trees

4 at 1 mark **[4]**

(b) Ideas such as:
Less evapo-transpiration would be likely to occur (✓D); as the amount of vegetation would be reduced (✓E);
Surface run off / flash floods would be likely to increase (✓D); as a result of impermeable surfaces / tarmac / roads / roofs etc (✓E)
Groundwater flow would be less likely (✓D); because of artificial drains (✓E)
More evaporation would be likely (✓D) due to impermeable surfaces (✓E)
Water moves through basin to river more quickly (✓D) due to artificial drains (✓E)

Annotate using D and E. 1 mark reserve for D and E. **[4]**

(c) **Level 1 (1-3 marks)**
Statements including limited detail describing the causes of flooding.
(e.g. heavy rain, impermeable rocks, flood plains built on etc)

Level 2 (4-6 marks)
More developed statements describing the causes of flooding.
(e.g. heavy rain falling over a relatively short period, impermeable rocks encouraging overland flow and rapidly raising river levels, underlying rocks saturated, building on flood plain encouraging rapid movement of water to river/constricting flow etc)

Level 3 (7 marks)
Uses named example (e.g. River Lyn).
Comprehensive and accurate place specific statements.
At least three developed statements describing different causes of flooding.
(e.g. thunderstorms associated with frontal depression formed torrential rain – 229mm near Longstone Barrow on Exmoor, saturated from previous rainfall as it had rained for 12 of the previous 14 days, impermeable rocks of Exmoor encouraging overland flow and rapidly raising river levels, river had been diverted and its channel made narrower due to building of hotels in Lynmouth, bridges over river trapped boulders and formed temporary dams etc)

LEDC = L2 (4 max)
No named e.g. = L2 (6 max)
Sea flooding = L2 (4 max) **[7]**

TOTAL [19]

3 **(a)** **(i)** 45,000 **[1]**

(ii) Most migrants DO come from LEDCs
BUT some migrants come from MEDCs
3rd mark – 2 eg.s - 1 LEDC
- 1 MEDC
Figures not required
China / S Korea can be MEDC or LEDC examples. **[3]**

(iii) Ideas such as:
Lack of qualifications/skills/education
Language difficulties
Many are doing low paid jobs/unable to obtain employment / informal sector employment
Thus are unable to buy homes/live in poor conditions / ghetto / crime
Discrimination may occur / racial hostility
Exploitation by employers e.g. cleaning / no unions / long hours
No rights / illegal
No money for food / health care
No government financial support
Criminal activities e.g. prostitution

4 @ 1 mark **[4]**

(b) Benefits such as:
Reduces population pressure/pressure on jobs/space/housing/food supplies/resources etc. (MAX 2);
Less pressure on services provided by government e.g. schools, hospitals;
Money sent back home to families;
Some migrants return with new skills etc

Problems such as:
Loss of young people/working population / economically active;
Drain of skills from country;
Social problems e.g. break up of rural community, missing generation in some villages
Less taxes to government

4 @ 1

MAX 3 on Benefits / Problems ✓B ✓P **[4]**

(c) **Level 1 (1 – 3 marks)**
Statements including limited detail which give reasons for rural to urban migration.

(e.g. more jobs, better services, not enough food)

Level 2 (4 to 6 marks)
More developed statements which give reasons for rural to urban migration.

(e.g. more jobs in cities where they can work in the informal sector/factories, greater access to schools/hospitals/clinics, can buy food from markets rather than rely on unproductive farmland)

Level 3 (7 marks)
Uses named example.
Comprehensive, accurate and place specific statements.

3 developed statements on different factors
(e.g. Caatinga region in North East Brazil to Sao Paulo/Belo Horizonte/Rio de Janeiro – people living in valley of Sao Francisco river lost best quality agricultural land when dams and reservoirs were built along it for HEP generation, they can make money in informal sector by offering shoe shine/selling fruit to tourists on Rio's famous beaches/ Placa de Se and Placa de Republica, the two main squares in the city centre of Sao Paulo, the city offers hope e.g. in the Cinqua Pora development (Sao Paulo) basic concrete houses are being built with piped water and sewage pipes, even in the favelas which have developed on the steep hillsides the people have better access to primary health care than in the countryside)

No named e.g. L2 maximum (6 marks)
MEDC = L2 (4 max)
International migration = L2 (4 max)
Urban to rural migration = 0 **(7)**

TOTAL [19]

4 **(a)** **(i)** As the population size increases the number of settlements decreases/ there are more small settlements than big settlements
2nd mark for use of figures from graph, e.g. there are 117 settlements with less than 1000 population or only 1 settlement with more than 250,000 people

4 sets of figures with no relationship = 1 max **[2]**

(ii) More services / large variety are found in larger settlements
Higher order services are found in larger settlements
Services such as theatres are only found in cities
The only services found in villages are pubs / general stores
All settlements, except hamlets, contain services **[2]**

(b) Specialist or high order services / shops
Require large threshold population
Large population / customer base is found in larger settlements
Found with other specialist / high order shops to attract customers
More potential customers means more potential profit
More accessible to customers / route focus
Accessibility means larger sphere of influence
More tourists in cities to extend customer base / day out to shop **[5]**

(c) Different order services are together not in different centres
Large shopping centres may be located in lower order settlements / villages
Higher order services lost from towns and cities / CBD
New developments are multi-functional containing a variety of services, including entertainment and sport
Changes hierarchy of shops and services **[3]**

(d) **Level 1 (1 – 3 marks)**
Statements including limited detail which describe why people move and / or consequences for rural areas
Causes: e.g. push factors such as traffic congestion, air pollution,
pull factors such as more relaxed lifestyle, less crime/social problems
change in lifestyle etc.
Consequences: village populations grow rapidly, influx of newcomers, etc.
jobs for locals

Level 2 (4 – 6 marks)
More developed statements which describe the causes of migration and / or consequences for rural areas
Causes: e.g. growth of commuting with development of transport links
retirement so not tied to work location
more footloose industries locating in rural areas so people follow their jobs
IT developments allow more work to be done from home
Consequences: character of villages change with new expensive housing estates
tension between villagers and newcomers such as inability to afford housing,
examples of job creation
newcomers may join fight against school closures etc.

Level 3 (7 marks)
Uses named example such as villages in Worcestershire
Comprehensive and place specific statements
Must refer to both causes of migration and consequences for rural area
Causes: e.g. M5 allow commuters to travel to jobs in Birmingham in less than one hour

Consequences: Many villages such as Bewdley now contain a high proportion of older residents who have retired to the village, this has pushed up house prices out of reach of young local residents

No named example = L2 (6 max)
Non-UK example = L2 (4 max)
Rural to urban migration = 0
New town = L2 (6 max) **[7]**

Total [19]

5 **(a)** **(i)** Morocco **[1]**

(ii) Life expectancy shows a positive correlation with GDP and
Infant mortality shows a negative correlation with GDP (1 mark reserve)
Reasons:
Healthcare – doctors / hospitals / medicines
Cleaner living conditions – water / sanitation
Diet – more food / better food
Education – about healthy living **[3]**

(b) Good nutrition:
- indicates how healthy people are
- indicates whether people can afford to buy food
- improves general health / fitness
- able to work
- less prone to disease
- higher life expectancy
- lower infant mortality
- less obesity
- no hunger / starvation / malnutrition **[4]**

(c) **(i)** **Level 1 (1 – 3 marks)**
Statements including limited detail which explain why rapid industrial growth occurs
e.g. cheap labour force, low production costs, rapid investment, government protection;

Level 2 (4 – 6 marks)
More developed statements which describe the reasons for rapid industrial growth
e.g. government investment in large manufacturing industries
Investment by TNCs attracted by low production costs and lack of trade unions

Level 3 (7 marks)
Uses named example such as South Korea
Comprehensive and place specific statements
Must contain 3 level 2 statements and be place specific
e.g. Local companies like Daewoo and Hyundai established links with Japanese and American companies to build cars cheaply
Pohang Iron and Steel Corporation imports raw material like coal, oil and iron ore from Australia and USA
Accept tourism, service industry, primary (not farming)

No named example = L2 (6 max)
MEDC = L2 (4 max) **[7]**

(ii) Ideas such as:
Standard of living improves as people become richer
Exploitation as people work long hours for low pay
Increased air pollution in cities due to rise in manufacturing industry
Discrimination against women who receive lower wages
More money in economy to improve health services, education
Increased traffic congestion in cities as car ownership rises rapidly, etc
Rural to urban migration
Overcrowding in the cities/shanty towns
Money home to villages
Lack of building regulations, so unsafe buildings **[4]**

Total [19]

6 **(a)** **(i)** Ideas such as factory shown in Photograph C is:
Older;
Brick built compared with prefabricated sheets;
More likely to pollute/has chimney which D does not etc
Darker / not as bright – i.e. colour

Comparison needed for 1 mark **[1]**

Differences such as:
C is closer to centre of city
C is nearer to River Don
C is near an 'A' road – D is near motorway
C is NE of Sheffield centre/Don Valley/between Sheffield and Rotherham whilst D is SE of Sheffield
C is in built up area / Sheffield whilst D is on fringe / outside urban area / in rural area / outside Sheffield
C is near river / D is near road

2 @ 1 mark **[2]**

(b) **(i)** Definition of inputs: e.g. things which are brought into the factory / used in factory / manufactured
Definition of outputs: e.g. items or goods which are made / leave factory / sold at market

2 at 1 mark **[2]**

(ii) Ideas such as:
C - raw materials were difficult to transport
- reduced transport costs / frequency of transport / expense of transport
- small storage capability

D - raw materials come from variety of locations / imported
- improved transport of raw materials / footloose
- easier energy movement – e.g. pipeline / national grid

4 at 1 mark **[4]**

(iii) Ideas such as:
- area has established reputation/name for that product;
- skilled workforce available in the area / loyal / trained / established
- infrastructure exists in area for that industry/ e.g. training establishments / supporting industries
- cost of moving to another location may be too great;
- reduced significance of original factors due to government policy / support / grants
- family link e.g. Cadbury
- inertia

3 at 1 mark **[3]**

(d) Level 1 (1-3 marks)
Statements including limited detail explaining the location of a distribution industry.
(e.g. good roads nearby, near urban areas, central location etc)

Level 2 (4-6 marks)
More developed statements explaining the location of a distribution industry.

(Central location in UK for access from all parts of country/to collect flowers; good road access to collect distribute flowers; ease of access for workers from nearby urban areas; large areas of rural land available which is relatively low cost etc)

Level 3 (7 marks)
Comprehensive and accurate place specific statements.
Must have at least three Level 2 statements explaining the location of a distribution industry.
(e.g. Bunches Florapost at Newstead near Junction 27 of M1. Central location in UK close to junction 27 of M1 for access from all parts of country/to collect flowers;
good road access using A611/A606 to collect distribute flowers; ease of access for workers from nearby urban areas e.g. Hucknall/Mansfield/Nottingham; large areas of land available which is relatively low cost due to government/EU incentives given for development of land in former coal mining village etc)

No named e.g. = L2 (6 max)
Non-UK e.g. = L2 (4 max)
If not distribution industry = L2 (4 max) **[7]**

TOTAL [19]

7 **(a)** **(i)** Mato Grosso or Rondonia

1 mark **[1]**

(ii) Maranhao

1 mark **[1]**

(iii) Ideas such as:
- some areas are more accessible / deep in forest it is difficult to get at trees
- as they are closer to river/highways/ existing settlements etc
- some areas have already experienced considerable deforestation / there is little forest left to remove
- active conservation / protection is more evident in some parts than others;
- remote parts of forest are difficult to conserve as illegal logging can take place unnoticed.
- some regions may have more valuable woods
- clearance for mining / settlements / hep /farming to 2 max

3 at 1 mark **[3]**

(b) Ideas such as:
- fertility of soil is low / lost after a few years
- no leaves returned to soil / no organic matter/humus replaced
- nutrient loss through leaching / heavy rain washes iron and aluminium minerals from soil / washes away nutrients
- increased soil erosion / soil washed away / blown away
- soil dries out / impermeable / compaction
- poor machinery / lack of farming tools / lack of inputs e.g. fertilisers
- lack of government support
- poor farming skills / practice – e.g. overgrazing

3 at 1 mark **[3]**

(c) Ideas such as:
- selective logging e.g. helilogging
- establishment of conservation areas / protected areas / zoning / ecotourism
- establishment of tribal reserves
- agro-forestry schemes – e.g. rubber tapping
- controls/quotas on logging / limits
- enforcements to prevent illegal logging
- afforestation
- shifting cultivation / slash and burn

4 at 1 mark **[4]**

(d) **Level 1 (1-3 marks)**
Statements including limited detail describing the likely impacts of global warming either on people and / or natural environment.
e.g. animals die, flooding, areas get warmer / drier, different crops can be grown, rise in sea level, melting ice caps, more coastal erosion, more droughts / hurricanes / storms, etc.

Level 2 (4-6 marks)
More developed statements describing the likely impacts of global warming on people and / or natural environment.
(e.g. ice melts and therefore loss of species from cold environments, rise in sea level causes flooding of coastal lowland areas, increased temperatures reduce snowfall in some areas threatening wintersports industries, crops such as vines can be grown in areas which were not previously hot or sunny enough etc)

Level 3 (7 marks)
Comprehensive and accurate place specific statements.
Must include at least three developed statements describing the impacts of global warming to include impacts on both the natural environment and people.
(e.g. Antarctic ice melts and therefore loss of species such as penguins, rise in sea level causes flooding of coastal lowland areas such as Fens/Bangladesh/ Netherlands/Maldives, increased temperatures reduce snowfall in Alps threatening winter sports industries, crops such as vines can be grown in areas in Southern England which were not previously hot or sunny enough etc)

No named example = L2 (6 max) **[7]**

TOTAL [19]

8 **(a)** Rain / precipitation with pH value of less than 6.0
Acidity results from:
Burn fossil fuels / vehicle emissions / factory emissions
Rise / go into air
Acids absorbed / mix with water
Fall as rain
Named gas – sulphur dioxide / nitrogen oxide **[4]**

(b) **(i)** Norway has a greater proportion from outside the country than Italy
2nd mark from use of figures, e.g. Norway receives over 90% from outside the country but Italy receive less than 40%

Allow 2 marks for accurate figures – i.e.
Italy 60% - 70% inside; 30% - 40% outside
Norway <10% inside; >90% outside **[2]**

(ii) Prevailing winds
Countries to the south of Norway produce a lot of acid rain emissions
Italy produces more acid rain in the country due to burning more fossil fuels / more industrialised

2 @ 1 **[2]**

(c) **Level 1 (1-3 marks)**
Statements including limited detail which describe the effects of acid rain on people and / or environment, e.g.
Rivers and lakes become more acid
Trees are damaged
Buildings are eroded
Health problems due to contaminated water
Increased avalanches

Level 2 (4-6 marks)
More developed statements which describe the effects of acid rain on people and / or environment, e.g.
Aquatic and animal life in lakes decrease as acidity increases
Acidification of ground water damages tree roots
Stonework in urban areas has been blackened and weathered by chemical action
Acidification of groundwater makes water undrinkable and causes diarrhoea
Aluminium in water linked with pre-senile dementia / Alzheimers
Avalanches impact on tourism

Level 3 (7 marks)
Uses named and located examples
Detailed and accurate place specific statements
Must refer to both people and environment
18,000 Swedish lakes now contain water with pH level below 5.5, 4,000 of these lakes are ‘dead’ with no living creatures.
1 in 12 trees in the Black Forest in Germany have been affected as their foliage has died as a result of acid rain.

No named e.g. = L2 (6 max) **[7]**

(d) Ideas such as:
International cooperation to reduce sulphur emissions / government agreements
Scrubbers to remove sulphur dioxide from power station emissions
Use low sulphur coal
Crushing and washing coal
Liming lakes
Alternative energy – nuclear, wind, hydro / cleaner
Low sulphur vehicle fuels / LPG / hydrogen / hybrid
Catalytic converters to reduce sulphur in vehicle emissions
Energy conservation in new vehicles and homes
Varnishing / protective coating on statues
Methods to reduce car pollution – e.g. sharing / increased public transport
Fines / sanctions – if targets not met

4 at 1 mark **[4]**

Total [19]

Assessment of written communication

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3 Candidate generally communicates effectively, using specialist terms in some answers.

4 Candidate communicates effectively throughout and uses specialist terms where appropriate.

Mark Scheme 1986/03
June 2006

1 (a) (i) North (and) west **[1]**

(ii) Yorkshire Dales
Snowdonia
The Broads **[3]**

(iii) Scenic beauty / views
Opportunity for outdoor pursuits or examples of these to max 2
Away from densely populated areas
Less specified pollution (max 1)
Examples of features / landforms to max 2
Nature / wildlife / habitats (max 1)
2 @ 1
[2]

(iv) South west / south / west England
In Devon
Between R Tamar and R Exe
N of Plymouth
S of Bristol Channel / Exmoor
Credit distances measured from the map from any named settlement / feature
Credit direction from any named settlement / feature
Near Plymouth / Tamar / Exe / Cornwall (1 max)
Between Plymouth and Exmoor etc. **[2]**

(b) (i) 589953 **[1]**

(ii) B: single, C: dual carriageway
B: busier /more congested
B: controlled by traffic lights, C: not
B: narrower
B: double yellow lines, C: none
B: zigzag lines, C: none
B: minor, C: main road
B: through town, C: through countryside (No double credit with (iii))
2 @ 1 **[2]**

(iii) B: through town, C: through countryside (No double credit with (ii))
B: winding, C: straight
B: north of river, C: south of river
B: in valley, C: on hillside
B: not in National Park as much as C
B: closer to Dartmoor Pony Steam Railway
B: is further north than C
2 @ 1 **[2]**

(c) Level 1 (1 – 2 marks)
Simple statements which explain why tourists are attracted to the area by identifying features or activities
e.g. features such as beautiful scenery, steam railway, museum
or activities such as walking, sailing, riding

Level 2 (3 – 4 marks)
More specific statements which link features with activities or grid references
e.g. areas of scenery with wild animals attract children
lake / reservoir attracts fishing / sailing
open moorland for hiking
museum / castle attracts historical enthusiasts
steam railway attracts families and enthusiasts
to fish in the lake
to ride the ponies

Level 3 (5 - 6 marks)
More specific statements which link features with activities and grid references
e.g. areas of scenery with wild animals attract children – 6193
lake / reservoir attracts fishing / sailing – 5691/5591
open moorland attracts hikers – 5891
museum / castle attracts historical enthusiasts – 588951 /581942
steam railway attracts families and enthusiasts – 5893 **[6]**

Total: [19]

2 (a) (i) South west / south south west **[1]**

(ii) 3.0 – 3.3 (km) = 2 marks
2.8 – 3.5 (km) = 1 mark **[2]**

(iii) 0.5 (sq km) **[1]**

(b) (i) 201 - 219 (m) **[1]**

(ii) Marked and labelled on cross section **[2]**

(iii) West Okement **[1]**

(c) (i) All 4 features labelled in correct boxes = 3 marks
3 features labelled in correct boxes = 2 marks
1 or 2 features labelled in correct boxes = 1 mark **[3]**

(ii) Spoils scenery / ugly/ visual intrusion
Can be seen for miles around
Loss of vegetation / farmland / habitats
Hole in landscape /alters shape of land / there are heaps of rock
etc **[2]**

(d) Level 1 (1 – 2 marks)
Simple statements giving either benefits or problems
e.g. noise, dust, jobs, loss of farmland

Level 2 (3 – 4 marks)
More specific statements giving either benefits **or** problems
e.g. noise – from blasting / disturbs people who are fishing / playing golf / from lorries
dust – makes washing hung outside dirty / irritates asthma sufferers / from blasting
jobs – in transporting rock from quarry / better paid / for people of Okehampton
Loss of farmland because it has been dug up / therefore less grazing space

Level 3 (5 – 6 marks)
More specific statements giving both benefits **and** problems tied with map evidence
e.g. noise – from blasting / disturbs people who are fishing at Meldon reservoir / playing golf at Okehampton golf course
dust – makes washing hung outside dirty / irritates asthma sufferers in Meldon, Okehampton
jobs for people of Okehampton in transporting rock from quarry
Loss of farmland as grazing land on Youlditch Farm has been dug up **[6]**

Total: [19]

The Awarding of Marks for the Quality of Written Communication

Marks are to be awarded for the quality of written communication according to the following criteria:

The ability of the candidate to communicate in written form should be assessed by forming an overview based across the paper, however those questions which involve extensive writing are likely to be most useful in your assessment.

0 Candidate makes little attempt throughout the paper to communicate in written form and/or the message is not always clear.

1 Candidate communicates clearly by using everyday language.

2 Candidate generally communicates effectively, using specialist terms.

Mark Scheme 1986/04
June 2006

1 a (i) Direction: North / West / North West / South West – 1 max
In Wales
Upland areas / over 200m / over 500m
Uneven / spread out / not clustered / clustered in region
Most are coastal / most away from coast / most inland
Away from the cities / urban areas **[3]**

(ii) In: South west / Devon
Between / near / close to/ surrounded by …
Direction – N of …
Distance – accurate measurement from map **[2]**

b (i) 589953 **[1]**

(ii)

B	**A**
Through town	Through countryside / by pass
Winding / longer	Straight / shorter
North of river	South of river
In valley / up and down	On hillside / flatter
Outside NP	Through NP

Must specify which is referred to
Can use comparative statement **[2]**

(iii) Level 1 (1 – 2 marks)
Simple statements which attempt to explain choice of route
Ref. to countryside
gradient

Level 2 (3 – 4 marks)
Developed statements which attempt to explain the choice of route
e.g. Goes through countryside to reduce congestion in the town
gentle gradient so traffic flow is quicker

Level 3 (5 – 6 marks)
Comprehensive answer which consists of developed statements tied to OS map evidence
1 L2 idea with map evidence = L3 (5 marks)
2 L2 ideas with 2 different map evidence = L3 (6 marks)
[6]

(c) Level 1 (1 – 2 marks)
Simple statements which explain why tourists are attracted to the area and which groups are visiting:
e.g. beautiful scenery, Dartmoor steam railway, Okehampton museum
L1 (1 mark) = attraction – golf course
L1 (2 marks) = 1 attraction with a named group

Level 2 (3 – 4 marks)
Developed statements which link attractions and groups to GR
L2 (3 marks) = L1 (1 mark) + GR
L2 (4 marks) = L1 (2 marks) + GR

Level 3 (5marks)
Comprehensive answer which links attractions and groups to GR's
L3 (5 marks) = 2@ L2 (4 marks) – i.e. 2 attractions with 2 groups and 2 GRs **[5]**

Total: [19]

2 (a) (i) South west / south south west **[1]**

(ii) 3.0 – 3.3 (km) = 2 marks
2.8 – 3.5 (km) = 1 mark **[2]**

(iii) 0.4 – 0.6 (sq km) = 2 marks
0.3 – 0.7 (sq km) = 1 mark
Allow fractions **[2]**

(b) (i) 1 mark - general valley side shape
- GL55 between 250-260m
- accuracy of slope **[3]**

(ii) Marked and labelled on cross section **[1]**

(iii) Aspect – North / north west facing hillside
Height - 270 – 360 m
Sloping / hillside **[2]**

(c) Hole in landscape /alters shape of land
Spoil heaps
Loss of vegetation / grass / moorland / removal of soil
Eyesore / spoils scenery / visual intrusion / scar / buildings spoil look / colour **[2]**

(d) **Level 1 (1 – 2 marks)**
Simple statements giving either benefits or problems
Ideas such as: noise, dust, jobs, money, transport, visual

1 @ L1 = 1 mark
2 @ L1 = 2 marks

Level 2 (3 – 4 marks)
Developed statements giving either benefits **or** problems
Benefits / problems from…and / or
Effects on…
e.g. noise from blasting
noise disturbs people who are fishing
jobs for local people driving lorries

1 @ L2 B or P = 3 marks
2 @ L2 B and P = 4 marks

1 @ L1 (1 mark) can be developed to L2 (3 marks)

Level 3 (5 – 6 marks)
Developed statements giving both benefits **and** problems linked to map evidence

2 @ L2 B and P + 1 map evidence = 5 marks
2 @ L2 B and P + 2 map evidence = 6 marks **[6]**

Total: [19]

The ability of the candidate to communicate in written form should be assessed by forming an overview based across the paper, however those questions which involve extensive writings likely to be most useful in your assessment.

0 Candidate makes little attempt throughout the paper to communicate in written form and / or the message is not always clear.

1 Candidate communicates clearly by using everyday language.

2 Candidate generally communicates effectively, using specialist terms.

Entry Level Certificate Geography A (3986)
June 2006 Assessment Series

Component Threshold Marks

Component	Max Mark	3	2	1	U
1 – Oral Test	20	14	8	3	0
2 – Coursework	50	34	23	9	0
3 – Written Test	50	32	22	12	0

Option/Overall

	Max Mark	3	2	1	U
Percentage in Grade	100	43.9	30.6	24.2	100
Cumulative Percentage in Grade	100	43.9	74.5	98.7	100

The total entry for the examination was 373.

General Certificate of Secondary Education Short Course Geography A (1086)
June 2006 Assessment Series

Component Threshold Marks

Component	Max Mark	A	B	C	D	E	F	G
Paper 1	60	-	-	37	31	25	19	13
Paper 2	60	38	31	24	18	-	-	-
Coursework	100	79	67	55	43	32	21	10

Specification Options:

Foundation Tier

	Max Mark	C	D	E	F	G
Overall Threshold Marks	100	58	48	38	29	20
Percentage in Grade	-	12.4	20.0	21.7	18.3	16.8
Cumulative Percentage in Grade	-	12.4	32.4	54.1	72.4	89.2

The total entry for the examination was 215.

Higher Tier

	Max Mark	A*	A	B	C	D	E
Overall Threshold Marks	100	74	64	54	44	33	27
Percentage in Grade	-	9.5	17.6	27.1	24	15.4	4.7
Cumulative Percentage in Grade	-	9.5	27.1	54.2	78.2	93.6	98.3

The total entry for the examination was 365.

Overall

	A*	A	B	C	D	E	F	G
Percentage in Grade	6.3	11.6	17.8	20.1	16.9	10.5	6.3	5.7
Cumulative Percentage in Grade	6.3	17.9	35.7	55.8	72.7	83.2	89.5	95.2

The total entry for the examination was 580.

General Certificate of Secondary Education Geography A (1986)
June 2006 Assessment Series

Component Threshold Marks

Component	Max Mark	A	B	C	D	E	F	G
Paper 1	80	-	-	52	44	36	28	20
Paper 2	80	53	44	36	25	-	-	-
Paper 3	40	-	-	26	22	18	15	12
Paper 4	40	27	23	19	14	-	-	-
Coursework	100	79	67	55	43	32	21	10

Specification Options:

Foundation Tier

	Max Mark	C	D	E	F	G
Overall Threshold Marks	200	120	101	82	64	46
Percentage in Grade	-	23.2	27.1	24.3	14.9	7.8
Cumulative Percentage in Grade	-	23.2	50.3	74.6	89.5	97.3

The total entry for the examination was 8193.

Higher Tier

	Max Mark	A*	A	B	C	D	E
Overall Threshold Marks	200	157	137	116	96	70	57
Percentage in Grade	-	14.7	26.1	31.3	19.4	7.6	0.6
Cumulative Percentage in Grade	-	14.7	40.8	72.1	91.5	99.1	99.7

The total entry for the examination was 15275.

Overall

	A*	A	B	C	D	E	F	G
Percentage in Grade	9.7	17.2	20.7	20.7	14.2	8.7	5.1	2.6
Cumulative Percentage in Grade	9.7	26.9	47.6	68.3	82.5	91.2	96.3	98.9

The total entry for the examination was 23473.

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