

GCSE

Edexcel GCSE

Geography B (1313)

Paper 4H

Summer 2005

advancing learning, changing lives

Mark Scheme (Results)

Mark Scheme 1313 4H 2005

Question A1

a)

- i) 38 (per 1000) 1 mark
- ii) 20 (per 1000) 1 mark
- iii) 1920 1 mark
- iv) 1970 1 mark

4 marks

b)

- i) Improved medical care (1) eg. vaccinations (1) new drugs developed (1) cures discovered for diseases (1)
Improved hygiene (1) eg. Sanitation (1) piped water (1) introduced
Improved diet (1) so more resistant to disease (1) 2 marks

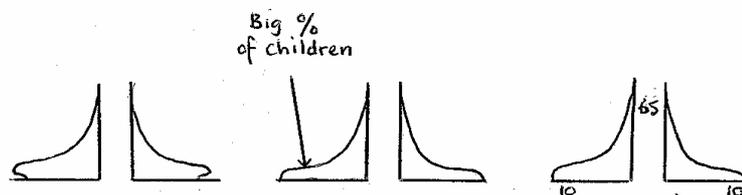
- ii) Poor parents benefit from having large families (1)
because children can work on family farm (1) and look after parents in old age (1)
More births to off-set high infant mortality (1)
Lack of access to contraception (1)
Lack of knowledge of contraception (1)
Lack of education for girls who follow tradition of having large families/do not have a career(1) 3 marks
- 5 marks

c)

- i) Appropriate outline shape required, i.e wide base and narrow top. Sides may be smooth or stepped, and concave or straight, but should be roughly symmetrical.

Level 1 1 mark	Draws an appropriate outline for one side (males or females) only
Level 2 2 marks	Draws an appropriate outline shape for both sides.
Level 3 3 marks	As Level 2, but also: Either draws a slightly reduced cohort at the very bottom (ie to reflect the recent fall in natural increase) Or indicates one significant feature (eg large % children; small % elderly people; small % working age) by annotation or key Or numbers both axes realistically for the size of the pyramid

Examples of L3 responses:



3 marks

ii) High dependency ratio (1)

High % of young people requires expansion in education (1) and health care (1), and difficult for LEDC to find money for this investment (1). Rapidly growing population may outstrip resources such as food (1) and water (1) resulting in increased poverty (1), starvation (1), homelessness(1)

3 marks

6 marks

d)

i) Increase by 172,000 (1)

1 mark

ii) Immigrants fill vacancies in menial jobs/ occupations shunned by indigenous people (1) plus example (1)

Immigrants may work for lower wages than indigenous people (1)

Immigrants full vacancies in skilled jobs (1)

Plus example eg doctor/nurse (1)

Young immigrants off-set problem of an ageing population (1) by reducing dependency ratio (1) and providing tax revenues (1).

Immigrants enrich culture (1) e.g. by introducing new music/foods (1)

3 marks

iii) It may lose many ambitious / enterprising people (1)

It may lose highly trained / skilled people (1) eg doctors / teachers (1)

It gets less tax revenue or government gets less money (1)

It may be left with an aging population (1)/less young adults or workers (1)

2 marks

6 marks

e)

Level 1 1 - 3 marks	Mentions a few environmental effects: e.g. air pollution, water pollution, visual pollution. May state a view about its sustainability without giving a reason.
Level 2 4 - 6 marks	Mentions a range of environmental effects or describes one or two in some detail. May refer to the extraction of the energy resource as well as its processing. States a view about sustainability with one or two brief reasons: e.g. gas will eventually run out To reach the top mark: Writes in sentences with a clear and structured style. Spells, punctuates and uses the rules of grammar with considerable accuracy.
Level 3 7 - 9 marks	Describes the environmental effects in some detail, considering a variety of aspects (e.g. air/water/noise/visual pollution; use of waste products; energy efficiency) and a variety of scales (e.g. local, regional and/or global). Includes place-specific details. Assesses its sustainability in some detail, e.g. lifetime of reserves, cost of waste disposal. To reach the top mark: Writes in sentences that are clear, structured and coherent. Spells, punctuates and uses the rules of grammar with few errors, using specialist terms appropriately and with precision.

Max. 6 marks if country not identified
Max. 3 marks if LEDC used.

9 marks

Total 30

Accept "fossil fuels" or individual fuels eg coal, oil, gas.
Accept nuclear power
Accept geothermal energy
Accept Biogas

Question A2

a)

- Museum (1)
- Town Hall (1)
- Tourist Information Centre (1)
- Bus station (1)
- Enclosed by inner ring road (1) 2 marks

Not accept Library/college

b)

- i) Motor vehicles are banned from driving there (1)
Only people on foot are allowed on them (1) 1 mark
- ii) More space to walk in (1) ('not less congested)
Safe from traffic accidents (1)
Less noise pollution (1)
Less air pollution (1) 2 marks
- iii) Increases congestion or air/noise pollution on nearby roads (1)
Deliveries to shops made difficult (1)
Shops lose passing motorist trade (1)
Have to carry shopping some way to car/bus (1) 1 mark

4 marks

c)

- i) 423594 438541 440541
424595 439542 441542
 442542 1 mark
- ii) Travellers park their cars at an edge-of- town car park and
Then catch a bus or tram or public transport. (1)
Plus one further mark for locating car park on edge of city (1)
Or destination as city centre (1). 2 marks
- iii) To reduce traffic (congestion) in the city centre (1)
To reduce air/noise pollution in the city centre (1)
To encourage greater use of public transport to city centre (1) 1 mark

4 marks

d)

Level 1 1 mark	Map identifies one or more advantages but with no explanations: e.g. 'A' road; flat ground; urban rural fringe.
Level 2 2 marks	Map with one explanatory label: e.g. A road for easy access or delivery of components/goods; flat land easy to build on; cheap land on edge of town; lakes for attractive environment; Near university/college for skilled workforce/research; near motorway junction for good accessibility; room to expand north.
Level 3 3 marks	Clear map with at least two explanatory labels

Max. 1 mark if no map drawn. Not accept railway or P & R.

3 marks

e)

- i) (Probably) Green Belt land (1)
 so planning permission will be hard to obtain (1)
 Urban sprawl will occur (1)
 Countryside/Farmland will be lost (1)
 Airport will need to re-locate (1)
 Noise from airport (1)

2 marks

- ii) Brownfield site (1) so will have some existing infrastructure (1)(e.g electricity, water)
 No farmland/countryside will be lost (1)
 Disused airfield offers room for expansion (1)
 Cheaper land than nearer city (1)
 Probably outside Cambridge Green Belt (1)
 Flat land will be easy to build on (1)
 Near railway station for good accessibility (1)
 Near A10/main road for good accessibility (1)

3 marks

- iii) Increased traffic congestion (1)
 Pressure on local services (1)
 Visual pollution (1)
 Reduction in value of own house (1)
 NIMBY attitude (1)
 Air/noise pollution from traffic/ building work (1)
 Air pollution form traffic (1)

3 marks

8 marks

f)

Level 1 1 - 3 marks	Mentions rural-urban migration and one reason for this. Mentions one improvement: e.g. self-help scheme; site-and-services scheme; low-cost council housing
Level 2 4 - 6 marks	Refers to rural-urban migration, giving a few reasons for it. May mention high rates of natural increase. Mentions a range of improvements or describes one or two schemes in some detail. To reach the top mark: Writes in sentences with a clear and structured style. Spells, punctuates and uses the rules of grammar with considerable accuracy.
Level 3 7 - 9 marks	Explains rural-urban migration in some detail (e.g. push and pull factors explicit), and may explain high natural increase rates too. Describes improvements (probably both council-based and self-help) thoroughly, and includes place-specific details. To reach the top mark: Writes in sentences that are clear, structured and coherent. Spells, punctuates and uses the rules of grammar with few errors, using specialist terms appropriately and with precision.

Max. 6 marks if country not identified.
 Max. 3 marks if MEDC city used.

9 marks
 Total 30

Question B3

a)

i) Oceans/sea

1 mark

ii) It is saltwater (1)

Desalination is very expensive (1)

2 marks

iii) It is usually cleaner/safer to drink (1)

It may be more reliable (1).

1 mark

4 marks

b)

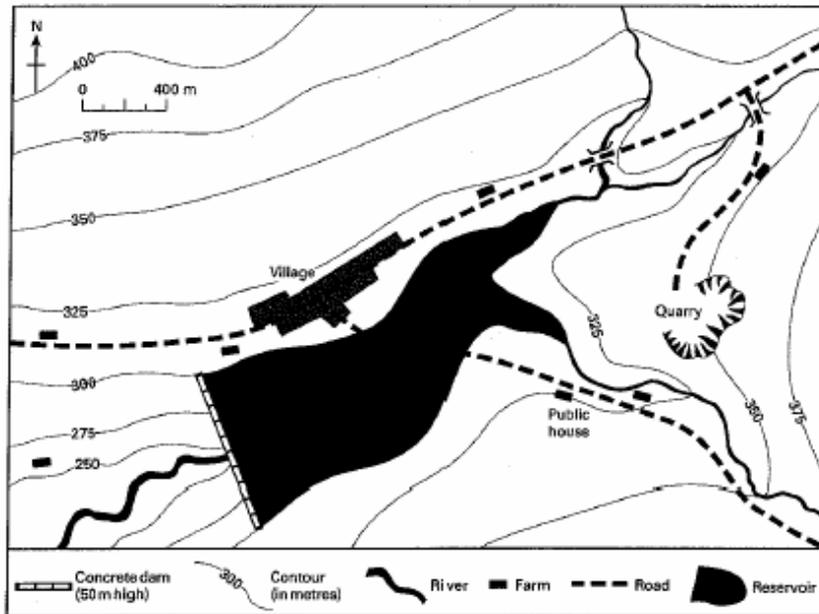
i) Westwards or southwestwards or WSW

1 mark

ii) 800 metres

1 mark

iii)



2 marks for shading the entire area within the 300 m contour upstream of dam (Max 1 mark for shading land above 300m too.)

1 mark for shading at least 1/4 of area within the 300 m contour upstream of dam

2 marks

4 marks

c)

i) The concrete dam will be an eyesore (1)

A farm will be flooded (1)

A road will be flooded (1)

The villagers will be cut off from the pub (1)

The publican will lose trade from the village (1)

4 marks

- ii) Use it for their own recreation (1)
 and/or appropriate examples e.g. fishing (1) sailing(1)
 windsurfing (1)
 (Not accept motorised water sports or “water sports”)
 Make money from tourists (1)
 plus an example e.g. open a café, B & B, or cycle hire shop (1)
 Get employment in building the dam (1)
 Ornithologists-pleased by extra wildlife (1)

2 marks

6 marks

d)

Level 1	1 - 2 marks	Points out there are more uses of water in MEDCs than in LEDCs and mentions a few. May refer to domestic uses only
Level 2	3 - 4 marks	Describes briefly some contrasting uses of water in MEDCs and LEDCs. Relates differences to personal living standards. May mention industrial or agricultural uses too.
Level 3	5 - 6 marks	Refers to a range of uses - industrial, agricultural and domestic- in some detail. Relates these to contrasting life-styles, levels of industrialisation and investment in water supplies in MEDCs compared with LEDCs. May include a few named examples of countries.

Notes for examiners: case study knowledge is not required for full marks, but should be credited if given.

6 marks

Total 20

Question B4

a)

Weather means (atmospheric) conditions at a particular time or day to day conditions(1)

climate means average/typical (atmospheric) conditions or weather (1)

2 marks

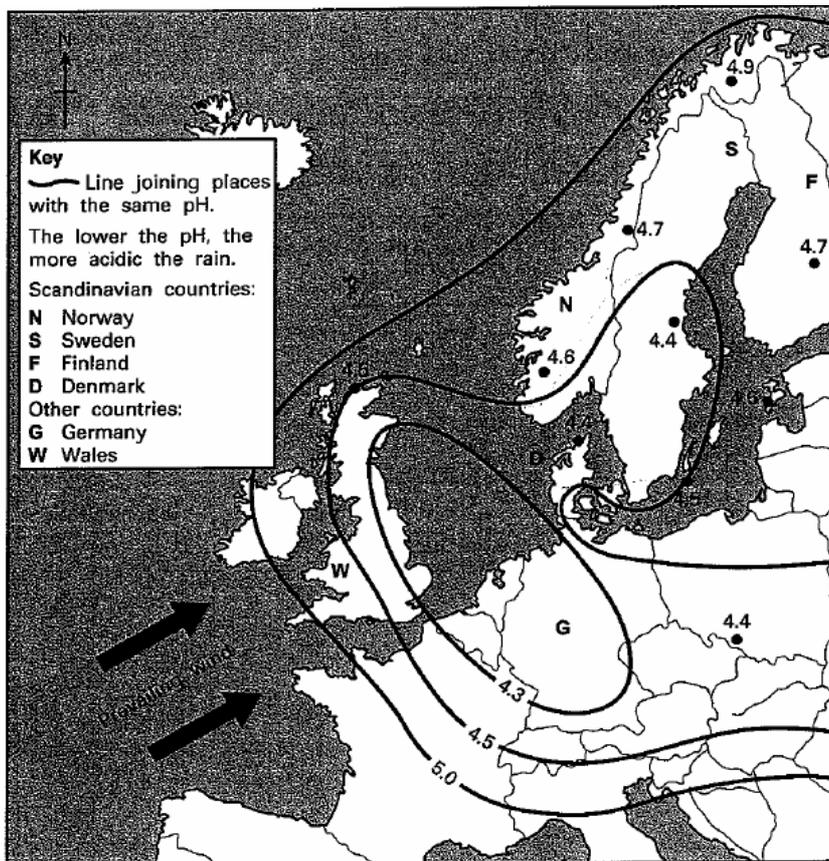
b)

i) Acid rain is when normal rainfall becomes polluted (1) by the addition of sulphur/nitrogen in the atmosphere (1) or burning of fossil fuels (1)

Accept when the pH value, which measures acidity (1) of rainfall becomes lower than 5.5 (1)

2 marks

ii)



1 mark for connecting the existing line the two 4.5 dots (in Scotland and Baltic)

plus 1 mark for accurate line linking these 4.5 dots (must enclose both 4.4 dots.)

2 marks

iii) United Kingdom, Netherlands, Belgium, Germany, Poland, Luxembourg, Switzerland, Austria, Czech Republic, Slovakia Hungary, France or Italy

1 mark

iv) South westerly

1 mark

6 marks

c)

i) Sequential points needed.

E.g. UK has power stations/factories/motor vehicles (at least two) (1)

which burn fuels (1)

that produce sulphur and nitrogen oxides (1) (not 'emissions')

which rise or are released into the atmosphere (1)

and are carried by (prevailing) winds (1)

towards the Scandinavian uplands (1)

which cause air to rise / cool (1)

which causes precipitation to fall (1)

4 marks

ii) Acid rain affects several countries (1)

One country causes acid rain in another (1)

2 marks

6 marks

d)

Level 1 1 - 2 marks	Mentions a few simple influences: e.g. animals can die in drought; floods can flatten crops. May only refer to weather influences.
Level 2 3 - 4 marks	Briefly explains a few influences: e.g. some crops need a warm climate to grow; sheep can survive in cool climates. Must include a climatic influence for the top mark
Level 3 5 - 6 marks	Explains a few specific influences in some detail: e.g. treble-cropping possible in tropical climates; high rainfall needed for padi rice; vines on south-facing slopes to catch sun. May mention e.g. greenhouses, or irrigation to modify climate. Must refer to both weather and climate for top mark.

6 marks

Note for examiners: Case study knowledge is not required for full marks but should be credited if given.

Total 20

Question C5

a)

Level 1 1-2 marks	Lists a few specific features: e.g. crops, lots of trees, hillside, large house, dry ground.
Level 2 3-4 marks	Includes some generalisations as well as specifics: e.g. orchard; mainly arable land; neat/regular landscape trees planted in long rows; lack of natural vegetation; small fields; trees as field boundaries.
Level 3 5 marks	Includes one landscape links e.g. orchard or olive grove on flat land, rows of crops/vines on hillside, trees spaced regularly along roads, crops on sunlit slope.

5 marks

b)

i) Sheep / animal / livestock / pastoral farming

1 mark

ii) Less intensive farming (1) or less human intervention (1)

Permanent grassland, so no ploughing/disturbance of soil (1)

More natural vegetation left untouched (1), so wildlife habitats preserved (1)

No crops harvesting, so no loss of soil nutrients (1)

and less risk of erosion (1)

Livestock enrich the soil with manure (1)

Low density of sheep grazing (1)

4 marks

5 marks

c)

Guaranteed prices will encourage farmers to use all their available land (1)

and to maximise their yields (1)

Resulting farm practices that damage the environment could include:

Removal of hedges, which destroys habitats (1)

and encourages soil erosion by wind (1)

Draining of marshes/ponds, which destroys habitats (1)

Ploughing up of meadows, which destroys wild plants (1)

Use of chemical fertilisers, which can pollute rivers (1)

Use of pesticides/herbicides, which reduce biodiversity (1)

Overstocking, which can cause soil erosion by compaction (1),

pollute streams with slurry (1) and damage habitats (1)

1 or 2 marks for general idea + 3 or 2 for examples = 4 marks

4 marks

d) Desertification

Level 1 1 - 2 marks	Mentions a few factors (e.g. population growth, climatic change) and/or processes (e.g. grazing, soil erosion, cultivation).
Level 2 3 - 4 marks	Explains simply the impact of a few factors (e.g. population growth meant greater demand for food) or processes (e.g. how surface run-off led to soil erosion; what over-grazing means)
Level 3 5 - 6 marks	Explains in some detail the factors and/or processes, showing clearly some of the inter-connections between human actions and physical processes.

6 marks

Max.4 marks if country/area not identified.

Max.2 marks if MEDC area used.

OR Deforestation

Level 1 1-2 marks	Mentions one or two direct causes: eg. For timber, grow food crops, mining, road-building, ranching.
Level 2 3-4 marks	Describes briefly one or two direct causes; (eg. Demand for tropical hardwoods, beef, soya beans; iron ore mining) and/or mentions one or two factors (eg. Need to increase exports to pay off debts; declining soil fertility after initial forest clearance causing deforestation elsewhere.)
Level 3 5-6 marks	Describes in some detail the direct causes and factors (eg. Growing of soya for export to European countries, in order to earn money to pay off Brazils international debt) May include place-specific details.

Max 4 marks if country/area not identified

6 marks

Max 2 marks if MEDC area not used.

Total 20 marks

Question C6

a)i)

Allow 1 mark for just mentioning at least two features built by people: e.g. hut, path, signpost (1) (provided they are not credited in the descriptive points that follow)

Building/hut

e.g. Stilts (1), steep roof (1)

Platform/steps made from timber (1)

Roof made from palm leaves (1) or thatched (1)

Local forest products used for building materials (1)

Footpath/trail

e.g. Raised above earth (1)

Made of sections of tree trunk (1)

3 marks

ii) Possible reasons for saying suitable.

Suitable for climate - e.g. steep roof sheds heavy rain (1)

Suitable for ground conditions - e.g. path raised above sodden earth (1)

Materials used blend in with forest surroundings (1)

Possible reasons for saying unsuitable.

Open buildings are vulnerable to wild animals (1)

Chosen building materials damage forest (1)

3 marks

Accept mixed opinion, and therefore reasons for suitable and unsuitable.

6 marks

b)

Boat trip to lake/farm/research centre (max1)

Environmentally-friendly/eco-tourist scheme (1)

See exotic or rare plants/ giant trees (1)

Observe animals in wild/ bird watching (1)

Different culture (1)

Commune with nature (1)

Escape stress of western life-style (1)/Peaceful/ secluded (1)

4 marks

c)

Evidence of limited environmental impact

- Small scale/only 24 rooms - so limited volume of visitors (1)
- Only accessible by boat/no road access - so limited volume of visitors (1)
- Biodegradable products used - so avoids pollution (1)
- Conservation of energy resources - e.g. water not heated (1), no electricity so no air conditioning (1)

Use of local (water or crops/forest) resources - so reduced transport/fuel costs (1)

- No road-building-so no deforestation (1)
- No electricity-so no ugly pylons, cables (1)

Evidence of support for local community

- Employment of local natives at lodge(1)-help the local economy(1)
- Buying of local farm produce income for farmers (1)
- Visits arranged to local farm - extra income for owner (1)
- Research use of plants for medicine-local traditions encouraged(1)
- Max. 3 marks on either environmental or community impact
- Must be developed points
- Accept no telephone/ electricity costs-so cheap to run (1)

4 marks

d)

Level 1 1 - 2 marks	Identifies simply two landscapes: e.g. mountains, lakes, coast, villages Lists some activities in each: e.g. climbing, sailing
Level 2 3 - 4 marks	Describes two landscapes, mentioning their distinctive relief, geology and/or vegetation: and/or settlement characteristics. e.g. limestone uplands, gritstone moors, sand dune coast, glaciated mountains, old cottages. Describes a range of leisure activities in each landscape
Level 3 5 - 6 marks	Describes two landscapes in some detail. May include named examples of uplands, villages, reservoirs, river valleys, etc. Explains links between activities and landscape features: e.g. rock climbing on, and hang-gliding from, steep gritstone edges; potholing in the caves formed in soluble limestone.

6 marks

Max. 4 marks if National Park not identified.

Max. 2 marks if a non-EU National Park used.

If only one landscape referred to , max. 1 mark at Level 1,

max. 2 marks at Level 2

and max. 3 marks at Level3.

Total 20

