

GCSE

Edexcel GCSE

Geography B (1313 2F)

Summer 2006

Mark Scheme (Results)

Question A1

(a) i) Mexico City or Tokyo (1)

ii) 7.0
 three times
 100 million
 New York
 1 x 4 (4)

(b) i)

Factor	Push	Pull
Better Education		✓
Paid employment		✓
Poor sanitation	✓	
Health care facilities		✓
Lack of food	✓	
Poor transport	✓	

1 correct = 1 mark 2 or 3 correct = 2 marks
 4 or 5 correct = 3 marks 6 correct = 4 marks
 (4)

ii) lack of infrastructure (1)
 shanty towns (1) Have to work on streets to earn money/informal jobs (1)
lack of: clean/ running water (1) sanitation/sewerage(1) electricity (1)
 doctors/ hospitals/medical care(1) jobs(1) schools/education (1)
 crime (1) disease (1) housing in danger of demolition/removal(1)
 overcrowding (1) poor quality construction (1)
 Poor living conditions (1) only if not gained a mark for a specific example of this.
 Also credit problems of MEDC cities
 Eg congestion (1) noise (1) air pollution (1) (2)

(c) (i)

Level 1 1 - 2 marks	Mentions one or two general facts about the growing importance of Cambridge e.g. increase in jobs; improved transport connections to London May make little or no reference to information from the fact-file, or simply repeat facts.
Level 2 3 - 4 marks	Mentions three or four facts about the growing importance of Cambridge, or links one or two to facts about transport problems eg. Increase of (over 9000) jobs (in 1980s) means more congestion in rush hours/throughout the day. Must quote from the fact-file to gain the top mark.

(4)

ii) e.g. Congestion/slower traffic/traffic jams (1)
 Noise (pollution) (1) air pollution (1)
 Difficulty getting to work (1) danger of accidents (1)
 Parking outside homes (1) road rage (1) harder to park the car (1)
 NOT Pollution on its own (3)

- (d) park and ride:
 (i) cars left in designated car park on edge of city (1)
 and public transport / bus taken into city centre (1) (2)
- (ii) fewer cars in city centre (1) less air/noise pollution (1)
 traffic moves more freely (1) so travel times reduced (1)
 less road maintenance (1) (2)
- congestion charging:
 (i) paying a fee (1) to use roads in city centre (1)
 and/or at peak periods(1) (2)
- (ii) means fewer cars (1) and less air/noise pollution (1)
 traffic moves more freely (1) so travel times reduced (1)
 also encourages use of public transport / other methods (1)
 money gained can be reinvested in roads/transport (1) (2)
- improved public transport:
 (i) more frequent buses / trains (1) at peak periods (1)
 more routes operated (1) cheaper fares (1) (2)
- (ii) means fewer cars (1) and less air/noise pollution (1)
 traffic moves more freely so travel times reduced (1)
 integration of bus/train/tram (1) (2)
- cycle lanes:
 (i) only cyclists can use these lanes (1) cyclists separated from other types of
 transport (1) (2)
- (ii) causes zero pollution (1) and is healthy (1)
 reduces the use of cars (1) cars don't get held up (1)
 enables cyclists to ride safely (1) and more quickly (1)
 helps/does not add to global warming (1) (2)
- restrictions on car use:
 (i) cars banned from certain roads (1)
 at certain times / peak periods (1)
 maybe by road pricing / charging (1) (2)
- (ii) means fewer cars (1) and less air/noise pollution (1)
 traffic moves more freely (1) so travel times reduced (1)
 also encourages use of public transport / other methods (1)
 less road maintenance (1) (2)

(e)

Level 1 1 - 4 marks	Mentions 1 or 2 advantages e.g. provides jobs, money Mentions 1 or 2 disadvantages e.g. profits go overseas, labour force is poorly paid
Level 2 5 - 8 marks	Mentions 3 or 4 advantages, or describes one or two in more detail e.g. brings investment and foreign currency, development of transport and infrastructure, prestige; increased GNP leads to increased demand for goods and growth of new industries (multiplier effect) Mentions 3 or 4 disadvantages, or describes one or two in more detail e.g. few local skilled workers employed, may increase national debt. To reach the top mark at this level, candidates should write in sentences with a clear and structured style; they should spell, punctuate and use the rules of grammar with some accuracy.

(8)

Total for question: 30 marks

Question A2

- (a) i) Sand (1)
Shingle (1) (2)
- ii) Aquarium (1) Pier (1) International Centre (1) Cliff Lift (1) (2)
- (b) i) (Wooden/rock) barrier/wall built at right angles to the coast / sticking out into the sea (1) (1)
- ii) To stop LSD (1) by trapping sand (to form beach) (1)
OR Prevents loss of sand (1) by LSD (1)
to form or keep beach (1) which breaks waves(1)
and absorbs wave energy (1) (2)
- (c) i) planting vegetation (1) cliff drainage (1) cliff/slope grading (1)
beach replenishment / nourishment (1) dune stabilisation (1) (1)
- ii) adding sand makes beach wider/higher (1) so wave energy is absorbed (1) so cliffs/coast are protected from erosion (1)
cliff drainage removes water/weight (1) so mass movement/slumping is prevented (1)
cliff grading makes slope gentler/more stable (1) so mass movement/slumping is prevented (1)
planting vegetation stabilises cliff slopes (1) so mass movement/slumping is prevented (1)
planting dune grasses (1) prevents sand erosion by the wind (1) (2)
- iii) may not last as long / be a permanent solution (1)
expensive if it has to be continually repeated (1) (1)
- (d) e.g.
Environmentalist:
For - (preserves) nature reserve (1) tumuli (1) (shingle) beach (1)
Not just “preserves environment”
Against - upsets natural ecosystem (1) disrupts wildlife (1)
- Bournemouth residents:
For - (preserves) nature reserve (1) tumuli (1) (shingle) beach (1)
area for recreation (1)
Against - money should not be spent on this area as there are no houses etc. (1)
- money should be spent on coast at Bournemouth (1)
- money saved could result in a reduction of council tax (1) 2 + 2 (4)
- (e) (i) Stour (1)
- (ii) River is close to / restricted by housing / built up area (1)
river is tidal (1) land is flat / low-lying(1)/on a flood plain (1)
Lots of impermeable surfaces (1) (2)

(f) i) Loss of / damage to:
 property (1) possessions (1) business/jobs/livelihoods (1)
 disruption of transport (1) loss of power (1) (2)

ii) Widening (1) deepening (1) straightening (1) the river channel
 creating wetlands (upstream) (1) building levees (1)
 controlling / preventing development / building near the river (1)
 afforestation (1)

+ 1 mark for development: eg. Widening/deepening/levees to increase
 channel capacity (1)
 straightening to speed up river flow (1)
 wetlands to absorb floodwater (1)
 forests planted to encourage infiltration/interception of water (1) (2)

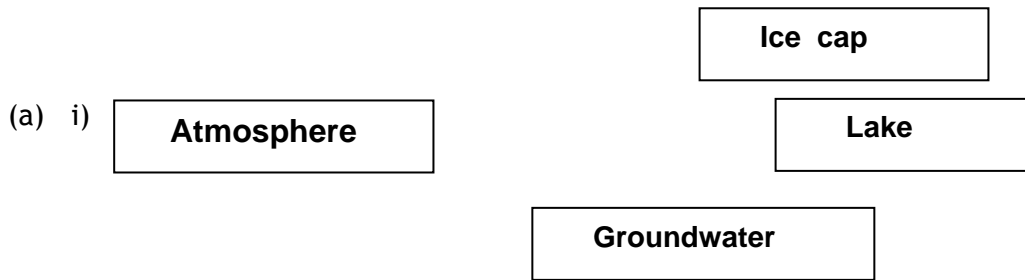
(g)

Level 1 1 - 4 marks	Mentions 1 or 2 effects e.g. deaths, destruction of property Mentions 1 or 2 responses e.g. search and rescue by emergency services
Level 2 5 - 8 marks	Mentions 3 or 4 effects, or describes one or two in more detail e.g. deaths due to collapsed buildings / fire; disruption of infrastructure: effect on economy of the area, short and long term effects Mentions 3 or 4 responses, or explains one or two in more detail e.g. use of thermal imaging cameras to locate trapped people: use of international aid agencies, short and long term responses To reach the top mark at this level, candidates should write in sentences with a clear and structured style; they should spell, punctuate and use the rules of grammar with some accuracy.

(8)

Total for question: 30 marks

Question B3



3 or 4 correct boxes = 2 marks 1 or 2 correct boxes = 1 mark (2)

ii) ice caps (1) (1)

(b) i) The variation from average (likely to be experienced in a particular month / year / period).
 Accept: rainfall you can depend/count on (1), NOT rely on (1)

ii)

Region	Rainfall amount	Rainfall reliability
Britain	Moderate rainfall	Moderate reliability
Desert regions	Low rainfall	Low reliability
Equatorial regions	High rainfall	High reliability

1 or 2 correct = 1 mark
 3 or 4 correct = 2 marks
 5 or 6 correct = 3 marks

NB The words 'rainfall' and 'reliability' are not essential. Accept moderate, low, high. (3)

(c) Domestic - Agriculture - Leisure - Industry
 1 or 2 correct boxes = 1 mark 3 or 4 correct boxes = 2 marks (2)

(d) i) Two correct divisions (2)
 Correct shading of bar (1)
 NB Max. 2 marks if shading untidy (3)

ii) Increase in population/housing (1)
 increased domestic use/use of appliances (1) eg dishwashers/washing machines(1)
 increased recreational use (1) eg. use on golf courses / swimming pools (1)
 increased industrial use (1) for cooling / cleaning (1)
 increased irrigation (1) due to high temperatures/possible global warming (1) or increased evaporation (1) (3)

(e)

Level 1 1 - 3 marks	Mentions one or two causes of pollution e.g. industrial waste, domestic sewage, leakages from boats, fertilisers from farmland Mentions the strategies simply e.g. controls on waste emissions
Level 2 4 - 5 marks	Mentions three or four causes of pollution, or describes one or two in some detail e.g. may refer to the type of pollutant and/or the source Explains one strategy e.g. may refer to specific schemes

(5)

Total for question: 30 marks

Question B4

- (a) i) The period during which temps. are high enough (1)
to allow crops to grow (1)
when average temp. is above 6 deg. C (1)
Accept: period of time when weather is suitable for growing crops (1) (2)
- ii) Shortest growing season (1) of less than 5 months (1)
so that arable / horticulture / cattle cannot occur (1)
Credit any other valid reasons (e.g. relief, rainfall)
to a max. of 1 mark (2)
- iii) Longest growing season (1) of more than 8 months (1)
so that veg. and flowers grow well / are ready early (in spring) (1)
Credit any other valid reasons (e.g. mild winters, plenty of rainfall)
to a max. of 1 mark (2)
- (b) i) Two correct divisions (2)
Correct shading of bar (1)
NB Max. 2 marks if shading untidy (3)
- ii) Nitrous Oxide/Carbon Dioxide - Methane
- Carbon Dioxide/Nitrous Oxide - CFCs
1 or 2 correct boxes = 1 mark 3 or 4 correct boxes = 2 marks
For the factory and the car (Nitrous Oxide/Carbon Dioxide responses) both
could be Nitrous Oxide or both could be Carbon Dioxide or one of each. (2)
- iii) Marks must be for developed points not just accumulated single,
undeveloped effects.
Good: longer growing season (1) more/different crops able to
be grown (1) e.g. mediterranean crops in Britain (1),
Boost to tourism (1) because of increased sunshine (1)
- Bad: melting of ice caps (1) so increasing sea levels (1)
leading to coastal flooding (1)
higher energy in atmosphere (1) so stronger winds/more storms (1)
NB Accept: more rainfall in some places but less in others (1)
for *either* good or bad (but not both)
Crop failure (1) so famine (1) so forced migration (1)
Deforestation (1) due to reduced rainfall (1)
Declining fishing grounds (1) because fish migrate to cooler water (1)
Spread of disease/illness (1) due to heat waves/spread of insects (1)
Decline of ski resorts (1) due to lack of snow (1)
NOT acid rain or destroying ozone layer

1+3 or 2+2 or 3+1 (4)

(c)

Either: Acid rain:

Level 1	1 - 3 marks	Mentions one or two activities e.g. industrial waste emissions, burning fossil fuels. Mentions the effects simply e.g. forests die, lakes acidified / fish die.
Level 2	4 - 5 marks	Mentions 3 or 4 activities, or describes one or two in some detail e.g. power stations emit SO ₂ , burning fossil fuels produces NO _x . Explains the effects simply e.g. acid rain causes (limestone) buildings to corrode, health risks.

(5)

Or: Urban micro-climate:

Level 1	1 - 3 marks	Mentions one or two characteristics e.g. increased temperatures, rainfall. Mentions the human activities responsible simply e.g. removal of vegetation and building tall offices.
Level 2	4 - 5 marks	Mentions 3 or 4 characteristics, or describes one or two in detail e.g. urban 'heat island', disruption of wind flow, increased cloud/fog. Explains the human activities responsible simply e.g. increased traffic in urban areas causing condensation nuclei; buildings retaining / causing heat.

(5)

Total for question: 20 marks

Question C5

- (a) i) NB Difference must be stated, by mentioning A *and* B, or by using comparative terms e.g. 'more', 'less'/'fewer' etc.
 A has flat land, B is hilly/undulating (1)
 A has (one) large field(s), B has many small fields (1)
 A has no hedgerows, B has many hedgerows (1)
 A is arable/wheat, B is pastoral/grass (1)
 A has machinery, B does not / no evidence of machinery (1)

Max 2 marks for separate descriptions/sections containing valid points

3x1 (3)

- ii) irrigation arable farming organic farming

3x1 (3)

- (b) Hedgerow removal: destroys wildlife / habitats (1)
 exposes fields to wind (1) soil erosion (1)
 Using chemical fertilisers: kills insects/wildlife (1)
 chemicals enter food chain (1) are danger to animals (1)
 wash out into rivers (1) leading to eutrophication (1)

1+3, 3+1 or 2+2 (4)

- (c) Using genes from one plant in another (1)
 producing hybrids (1) cross-breeding (1)
 crops which have changed/mutated due to artificial intervention (1)

NOT allow crops made by scientists

Accept: where characteristics of one crop have been added to another to produce a better/improved variety (1)

(1)

- (d)

	Good effects	Bad effects
They produce high yields	/	
They can reduce the variety of insects		/
They reduce the need for chemicals	/	
They can affect crops in other fields		/

(4)

(e)

Either: Desertification:

Level 1 1 - 3 marks	Describes the location in general terms, probably without a sketch map. Eg Sahel in Africa Mentions 1 or 2 measures taken simply e.g. controlling grazing.
Level 2 4 - 5 marks	Describes the location accurately / precisely, and may include a sketch map. Eg Sahel in N Africa / near or S of Sahara Explains the measure(s) taken simply e.g. using irrigation, to improve soil or crop growth.

(5)

Or: Deforestation:

Level 1 1 - 3 marks	Describes the location in general terms, probably without a sketch map. Eg Amazon in S America Mentions 1 or 2 measures taken simply e.g. replanting.
Level 2 4 - 5 marks	Describes the location accurately / precisely, and may include a sketch map. Eg Amazon in Brazil/ nr Equator Explains the measure(s) taken clearly e.g. selective forest clearance, replanting to preserve the forest and habitats (to encourage sustainability).

Max 3 marks if MEDC example chosen

(5)

Total for question: 20 marks

Question C6

(a) i) scenery / countryside (1) mountains/hills (1) forests (1) peace / quiet (1) 2x1 (2)

ii) walking / hiking (1) rock climbing (1) watching birds / wildlife (1) orienteering (1) cycling/mountain biking (1) picnicking (1) photography (1) paragliding/hand gliding (1) pony trekking/horse riding(1) kite flying (1) camping/caravanning (1) sightseeing (1) 2x1 (2)

(b) more more accessible healthier 3x1 (3)

(c) i) A place to which many tourists are attracted (1) or a place which is very popular for tourists/visitors (1) (1)

ii)

	Good effects	Bad effects
Tourists spend money in the town	✓	
Local journeys take longer		✓
There are fewer jobs in winter		✓
There are more leisure facilities	✓	

(4)

(d) Footpath erosion caused by 4x4s (1), by mountain bikes (1), by walkers (1) air pollution caused by more traffic (1), by car exhausts (1) visual pollution caused by building hotels (1) by setting up caravan sites (1) damage to/destruction of habitats/wildlife by litter (1), by noise (1) by trampling (1)
 Max. 2 marks for causes of one type of damage.
 Max. 2 marks for statements of damage: eg footpath erosion (1), visual pollution (1)
 ie. To score 3 marks, one type of damage must be explained 3x1 (3)

(e)

Level 1 1 - 3 marks	Describes the location of the LEDC area in general terms, probably without a sketch map. Eg Kenya in Africa Mentions one or two effects on the environment / wildlife e.g. conservation of vegetation, protection of wildlife e.g. elephants.
Level 2 4 - 5 marks	Describes the location of the LEDC area accurately / precisely, and may include a sketch map. Eg Kenya in E Africa/savanna grasslands Mentions 3 or 4 effects on the environment / wildlife, or explains one or two simply e.g. trophy hunters are satisfied with basic amenities so environmental impact is therefore less; and are limited in number so fewer animals are killed, so the eco-tourism is sustainable.

Max 3 marks if MEDC example chosen

(5)

Total for question: 20marks
 Total for paper: 100 marks