

GCE

Edexcel GCE

Geography A (6462)

Summer 2006

Mark Scheme (Results)

1

- a Study Figure 1 which shows male life expectancy at birth in the United States of America.
- i Define the term life expectancy. (1)
The average number of years a person can expect to live or the mean age of death in a population (accept "how long you live for").
- ii Describe the pattern of male life expectancy in the USA. (3)
- Very uneven
 - Markedly lower in South-East, except Florida
 - Higher values tend to be clustered - North Central / High clusters on West Coast.
 - But little overall pattern outside of SE
- Point mark*
For full marks should make an overall comment such as 'uneven' or convey a clear pattern.
- iii Suggest reasons why male life expectancy varies from place to place within the USA. (4)
Some areas are poorer and have worse:
- Health care
 - Income and thus nutrition
 - Education (about nutrition and smoking)
 - Crime
 - Pollution
- Climate may also be argued - cold winters / hot summers
(supporting details may be offered of named states, or of the extremes of climate)
- One mark for each valid point and additional mark for valid extension / example. Maximum of three if none of the points explain why these factors vary from place to place. (Wealth)*
- b Suggest reasons why population density generally declines with increasing altitude. (3)
- Environmental Lapse Rate changes and thus Thermal Growing Season declines
 - Altitude = mountainous, steep slopes, soil loss, limited fertility and thus extensive forms of agriculture
 - Accessibility problems
 - Limited tourism opportunities often
 - This all implies a low carrying capacity
 - Thinner air has an impact in extreme cases
- One mark for each valid point but allow extension to 2 for any development.*

For full marks, expect more than a list of difficulties or obstacles to habitation- there should be a suggestion that activities may be possible, but that only a limited number of people can be supported by the land.

Or a specific reference to density decreasing (not absent).

- c Describe the population changes that take place during the second ('Early Expanding') stage of the Demographic Transition Model. (3)
- Death rate begins to fall
 - Birth rate remains high
 - Thus population starts to grow
 - At an increasing rate
 - DR falls from 40-50 per 1000 to 20 per 1000
 - Rate of NI at 2% or 3% by end of period
 - Births > Deaths

One mark for each valid point. Award a mark for any sensible attempt to quantify. Reserve third mark for comment about total population.

- d With reference to named countries, describe and explain the causes and consequences of falling birth rates. (6)

Causes will include:

- Women in work and education
- Life-style choices and the cost of children
- Government policy (China)
- Decline of the subsistence family as a unit of production
- Economic pessimism (Eastern Europe)
- Rise of Aids, especially in LEDCs

Consequences will include

- Population decline
- Possibly leading to underpopulation (so a bad thing)
- Possibly easing overpopulation (so a good thing)
- Local changes to service provision (less schools)
- Changes to retailing (pubs and clubs close)
- Need for immigration
- Rising median age

Credit highly those that attempt to separate short-term and long-term consequences.

6-5	Balanced between causes and consequences. Good on both description and explanation. Locations convincing. Consequences may be structured (good/bad; short/long-term).
4-3	Attempted explanation, good on either causes or consequences or superficial on both. Locations not always recognisable.
2-1	Some description of <u>either</u> causes <u>or</u> consequences. No location offered.

2

a Study Figure 2 which shows patterns of population change in the European Union between 1980 and 1995.

i Identify: (2)

1. a country that has more areas of population decline than increase
Portugal
East Germany (allow).

2. a country in which all areas have experienced population growth.
Ireland
Netherlands
West Germany (allow)
Wales (allow)

ii Describe the pattern of population growth rates in the British Isles. (3)

- Very uneven
- Overall increase > decrease
- Belt of high growth from Wash to Lyme Bay (accept "in the south")
- Decline concentrated in a few small areas (conurbations)
- Scotland contains significant numbers of areas of decline
- Ireland = all growth

Point mark

For full marks should make an overall comment such as 'uneven'.

iii State two reasons why population growth rates vary from place to place. (2)

- Birth rates OR fertility rates OR Natural Increase
- Death rates
- Migration
- In-migration
- Out-migration
- Population structure (Ageing or youthful)

A mark for each. Accept single word answers.

b Explain how climate affects population distribution. (3)

- Climate = rainfall and /or temperature.
- May focus on altitude, latitude or maritime / continental ideas: all are fine
- Answers relating to Thermal Growing Season and carrying capacity are likely to score highly
- Don't credit "too hot" unless rainfall also discussed (monsoon and desert both hot, but very different demography!)

For full marks expect more than a list of climatic obstacles. There should be a suggestion that activities may be possible, but only for limited numbers. Or a specific reference to distribution.

c Suggest possible reasons for rising death rates in: (4)

1. some African countries

- Aids/Disease
- Famine (may accept drought)
- War
- SAPs / Tied aid ideas (and possible reduction in health care and water supplies).

2. some European countries

- Ageing population, so increasing numbers reaching the end of their lives
- Diet / drugs / smoking / lifestyle issues (but arguments should be realistic and - smoking is declining, not increasing, at the national level in most cases)
- These may affect men or women (rise of drinking amongst young women, for example)
- AIDS is acceptable (though not truly significant at the national statistical level)

Point mark and add a mark for any extension / example.

Accept all ideas that, while not being especially statistically significant, are essentially truthful / plausible.

Do not accept statements like 'poor healthcare' unless linked with idea of a rise.

d With the use of named examples, describe and explain the differences between the population pyramids of urban and rural areas in LEDCs. (6)

- Urban areas tend to have more of working age
- Often more men than women in younger urban cohorts in many nations (though not all, e.g. textile towns of SE Asia)
- Higher % of children as a consequence of above
- Rural areas show impact of out-migration
- Rural 'in earlier stage of development' hence CBR / CDR differs from urban

6-5	Good description and convincing explanation of both. Differences explicitly addressed. Recognisable nation with named city.
4-3	Description and explanation at least one feature of both urban and rural areas. Named nation
2-1	Description of one or other. Explanation limited to individual pyramids. No location.

3

- a Study Figure 3 which shows the central place hierarchy identified by Christaller in the 1930s.
- i Define the term market area (2)
- Area of land surrounding, and served by, a central place
 - Catchment area for a town's goods and services
- One mark for idea of an area around a settlement or shop, one mark for the idea of goods or services ('central place' infers this).*
- Give just one for a synonymous definition such as "sphere of influence" or "catchment area".*
- ii Complete Figure 3 by estimating the population of: (2)
1. a provincial city
allow 90,000 to 120,000
 2. the market area of a regional capital
allow 3,000,000 to 5,000,000
- iii Describe how the functions of larger central places will differ from those of smaller central places. (3)
- More of the same functions in larger places
 - Different functions in larger places
 - Provides illustrations eg the addition of industrial, commercial, education and admin functions / specialist shops
- Point Mark*
- b Explain why land users vary in the amount they are willing to pay for central city sites. (4)
- "What they pay depends on what they can get back"
 - Shops can pay more due to the profits made in accessible and visible sites
 - Industries pay more for sites that save money in other ways (e.g. next to transport lines / water sources)
 - Homeowners may be attracted by postcode prestige, good schools or environmental amenities (near parks)
 - Homeowners pay less commuting costs if they live near the centre
 - Thus there are different requirements for centrality according to who the user is

4-3	Sensible remarks are made about the needs of user groups. For four marks, should establish a link between <i>profits</i> and costs, or references to two or more user groups
2-1	Simple assertions ("only shops can afford it")

- c Describe the impact of out-of-town retail areas on the CBDs of towns and cities. (3)

- Loss of trade in city centre due to competition
- So vacant lots / charity shops appear as demand falls
- Some traders affected more than others - food, electrical goods etc
- "Tipping point" may be mentioned - credit this
- Positive impacts = decline in congestion or redevelopment schemes
- Some CBDs have seen a functional shift towards leisure and bars (especially since licensing laws changed)
- Some CBDs are now experiencing retail re-vitalisation due to re-urbanisation: Metro-style Tesco supermarkets

3	Identifies positive as well as negative impacts or recognises diversity - not all CBDs are affected in the same way.
2-1	Simply asserts negative impacts with no variety.

d With reference to a named town or city, describe and explain the distribution of different types of residential land use. (6)

- Differentiation by social class of housing most likely
- Ethnicity (South Africa apartheid city e.g. Pretoria)
- Explanation might be related to the urban land market and issues of land ownership
- Explanation might be related to physical factors of site

Only two aspects of the pattern need be described if there is good quality of explanation.

6-5	<u>Either</u> offers a sound explanation of at least two aspects of a named distribution. <u>Or</u> has thinner explanation but really impresses with the locational detail (named areas/features/has variety of types).
4-3	Limited description of only two types of use accompanied by narrow explanation. Location recognisable.
2-1	<i>No explanation</i> and very basic description. Location indistinct

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4

a Study Figure 4 which shows the percentage area of different types of land cover in the German city of Munich.

i Identify two different types of urban land use that might be included under the heading 'vegetation'. (2)

- Parks
- Gardens
- Road verges
- Railway embankments
- Stadia
- Sports ground
- Nature reserve
- Playing fields
- Allotments
- Woodland

One mark for each appropriate response

ii Suggest reasons why the percentage area of vegetation will vary from city to city. (4)

- Urban land market will vary. Higher demand = more pressure on open space
- Demand maybe due to constraints on expansion (site).
- Levels of planning will vary. Las Vegas vs. Paris (laissez-faire vs. regulated)
- Restrictions may exist (e.g. along floodplains in UK - Environment Agency has powers)
- Doves of Londoners have paved over their gardens after watching "garden makeover" programmes on TV, plus lack of parking spaces
- How strictly is planning applied? Illegal occupation of open space in LEDCs (squatting)
- Functions vary (tourism or mining)
- Physical factors (slopes, floodplains)

4-3	Clear understanding of the role of <u>either</u> planning <u>or</u> of social-economic needs. May extend idea by naming cities or agencies, physical factors or functions.
2-1	Simple statements about government ("they" won't allow building) or demand levels

b Describe the location and characteristic features of the zone in transition. (4)

Outside the CBD / inner city / Burgess zone 2

Features can include the type of land use, function, the type of residents, population density.

Change (synonym for transition) is a key feature

Processes of invasion and succession feature in Burgess' account.

4-3	Describes both location and some features, recognising <i>changes</i> for full marks.
2-1	Simple statement of location and a single feature, (possibly "where the factories are").

c Describe and explain the relationship between building height and distance from the city centre. (4)

- Generally declines with distance from centre
- Not uniform decline - "anomalies" exist

- Bid-rent is core explanation
- Centrality required by users so bids rise
- Pressure to intensify use of space so height added
- Planning may restrict this process placing limits on building height

4-3	<i>Either</i> the description has variety <u>or</u> the explanation of building height displays a good understanding of bid-rent processes.
2-1	Simple description ("there's more land further out" or "less people want to live there").

d With reference to a named town or city, describe how its functions and land use pattern have changed over time. (6)

- Deindustrialisation
- Growth of retailing
- Expansion of CBD
- Residential growth
- Growth of quaternary

6-5	Accurate knowledge of functional changes in a named settlement and pattern described (Explicit for full marks)
4-3	Changes in function or land use described in some detail or superficial account of both. Location recognisable.
2-1	Simple statements of change. Location indistinct.

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5

a Study Figure 5 which presents a number of facts about international migrants to the United Kingdom.

i Identify TWO economic impacts of immigration. (2)
 Labour supply for catering
 Labour supply for health service
 Impact on food market / ethnic sales increase

Any two. Must reference figure 5.

ii Identify the largest ethnic group of immigrants. (1)

UK nationals or returning migrants

- iii Suggest political reasons why numbers of migrants to the UK might reduce in the future. (3)
- Immigration is contentious issue
 - Governments may need to be seen to act to gain re-election
 - Media may figure, courting controversy
 - Terrorism, may provoke reduction
 - Migrants may not like UK politicians!
 - "Improved" politics at home may mean migrants do not need to move anymore

One mark for each plausible idea (e.g. Terrorism) , allow 2nd mark for any extended point or example.

- iv Suggest economic and demographic reasons why numbers of migrants to the UK might increase in the future. (4)
- Fall in supply of labour so UK admits more
 - Driven by falling fertility rate and rapidly ageing population
 - Poor economic conditions in EU nations whose populations now have open access to UK
 - Need to import high quality labour in certain sectors; microelectronics, bioengineering
 - Fall in provision of key skills in a number of areas
 - Growth of service sector requires migrant supply with increasing affluence

Be cautious about crediting non-EU economic "push" factors ("conditions are poor in their country so they come here"). The UK does not have to grant access to all-comers. Quality answers should instead recognise that it is the UK's economic need that shapes more "open door" policies.

4-3	Clear on <u>both</u> economic needs and demographic driving forces.
2-1	At least one idea with some linkage to demand for labour

- b
- i Name and outline: (2)
- ONE social reason for rural to urban migration
Education, rejoining family, marriage, better living conditions
'Bright light' (amenities / entertainment), inheritance laws.
- One mark for plausible social factor, one mark for plausible linkage to migration from rural to urban thus 'No universities in rural areas therefore...'*
- ii ONE intervening obstacle that might prevent rural to urban migrants from reaching their intended destinations. (2)
Lack of resources to pay for travel, family ties, travel risks, political and legal complications. Lack of transport links.

Also accept physical barriers, but these should be well exemplified for 2 marks.

This is not about conditions at the origin (lack of jobs) or the destination (lack of houses). It is about why a desired journey cannot be taken - problems with the journey or constraints (family / money) on the individual.

One mark for plausible obstacle, one mark for clear statement of why it stops people moving. "Family ties" = 1 mark, "family ties such as elderly dependent relatives make it impossible to leave" = 2 marks.

c With reference to named examples, describe and explain how migrations have an impact on the physical environment of the areas of origin and destination. (6)

- Impacts might be positive or negative
- Impacts might be short-term or long-term
- Can reference biosphere, hydrosphere, atmosphere, lithosphere
- Most probable are loss of land, desertification, deforestation
- Land might recover after abandonment to secondary climax
- Explanation needs some unwrapping of the processes

While well-constructed answers may focus upon the origin and destination for a single migration, the wording of the question does not make this an absolute requirement

6-5	Balanced coverage of migration impacts upon both points of origin and destination. For 5 marks, expect good explanation to be offered <u>either</u> of the physical processes of change (such as overland flow) <u>or</u> of the migratory circumstances (why was migration occurring?). For full marks, should have both.
4-3	Lacks balance between origin and destination. Or has balance, but lacks depth of explanation of <u>both</u> the physical impacts <u>and</u> the migratory circumstances.
2-1	Description of an impact. Locations indistinct

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6

a Study Figure 6 which presents a number of facts about the Indonesian internal migration programme.

i Identify the economic push factor that encouraged migrants to take part in the programme. (1)

Rural poverty / lack of jobs due to over population / low standards of living.

ii Name and outline two environmental changes associated with this migration. (2)

- Removal of forests for logging
- Changes to river sediment load
- Removal of forests in unsuitable areas by Dayaks
- Impact of mining

Credit ideas above.

Award a total of one mark only for single word answers.

b Describe and explain the political factors that give rise to internal migration schemes. (4)

- Relieving pressure from the cities / core areas
- Attempting to increase food supply by developing undeveloped areas (Brasilia)
- To gain political support from 'grateful' migrants

Emphasis should be on why this occurs (factors) and not how it is achieved. However, some may interpret "describe" as a command to provide details of the schemes themselves (e.g. new towns) - credit this up to 2/4

Migration schemes = direct government intervention, not indirect action. Max 2/4 for answers that only look at indirect aspects (e.g. enterprise zones might well attract people, but are not "migration schemes")

4-3	Can explain the circumstances. May provide examples. For full marks, should clearly grasp the <u>need</u> for <u>direct</u> government intervention.
2-1	Simple statements about why governments encourage movement.

c i With reference to urban to rural migration in MEDCs: explain how economic factors might cause this type of migration (4)

- Too expensive to live in cities
- "More for your money" with rural housing
- Loss of employment in central city areas
- Jobs have decentralised too, so people follow
- Technology (broadband) allows rural business to expand
- Tourism has grown, making rural job opportunities
- Elderly have savings which they spend re-locating

Mark on depth and range. One marks for any plausible factor, second mark available for any development of that idea.

4-3	Answer has variety. May reference changing economic circumstances in <u>both</u> rural and urban areas. May provide real-world examples. May recognise <u>heterogeneous</u> nature of the migration (workers / families /retired groups).
2-1	Simple statements, all of a single theme. Unlikely to use real-world examples.

ii Describe and explain the demographic characteristics of urban to rural migrants. (3)

- Two types: retirees and working adults
- Workers likely to be "middle-aged", often with children
- Unlikely to be young adults (20-30ish) involved
- Gender not generally significant (though there may be more female

- pensioners due to longevity)
- Explanation for retirees: they can, in theory, live anywhere they chose, so prefer rural aesthetics, etc.
- Explanation for workers: could involve career changes, or concern over environment for children to live in

Point mark each category described.

Reserve the third mark for a justification of at least one of the categories proposed.

d **With reference to a named international migration describe and explain the positive and negative impacts of this migration on the receiving country.** **(6)**

Impacts could be economic, social, demographic, cultural and physical

Explanation involves making a plausible link between a migration flow and its impact on a particular environment.

Thus the assertion of 'overpopulation' is a mid-level comment, as extended explanation would involve some reference to actual levels of available jobs etc.

A more descriptive cultural geography approach (hybrid fashion / music / food) could reach the top band, if the supporting ideas are good.

6-5	Good balance, impacts are more detailed or have a good variety. Convincing location.
4-3	Description of at least two impacts with some explanation added for 4 marks, or a longer list of briefer points. Do not expect balance. Location recognisable.
2-1	Description of at least one impact. Location indistinct.