General Certificate of Education

Geography 5031 Full Course
Specification A

Unit 2   GGA2

Mark Scheme

2007 examination - January series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

GGA2

General Guidance for A Level Geography Assistant Examiners

Quality of Written Communication

As required by QCA, the marking scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communications but where questions are "Levels" marked, written communication will be assessed as one of the criteria within each level.

Level 1: Language is basic, descriptions and explanations are over simplified and lack clarity.

Level 2: Generally accurate use of language; descriptions and explanations can be easily followed, but are not clearly expressed throughout.

Level 3: Accurate and appropriate use of language; descriptions and explanations are expressed with clarity throughout.

Levels Marking – General Criteria

The following general criteria relate to knowledge, understanding and their critical application and the quality of written communication as outlined in the AQA Geography A subject specification. They are designed to assist examiners in determining into which band the quality of response should be placed, and should be used when assessing the level of response an answer has achieved. It is anticipated that candidates' performances under the various dimensions will be broadly inter-related and the general guidelines for each level are as follows:

Level 1: An answer at this level is likely to:
- display a basic understanding of the topic;
- make one of two points without support of appropriate exemplification or application of principle;
- demonstrate a simplistic style of writing perhaps lacking close relation to the term of the question and unlikely to communicate complexity of subject matter;
- lack organisation, relevance and specialist vocabulary;
- demonstrate deficiencies in legibility, spelling, grammar and punctuation which detract from the clarity of meaning.

Level 2: An answer at this level is likely to:
- display a clear understanding of the topic;
- make one or two points with support of appropriate exemplification and/or application of principle;
- demonstrate a style of writing which matches the requirements of the question and acknowledges the potential complexity of the subject matter;
- demonstrate relevance and coherence with appropriate use of specialist vocabulary;
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which do not detract from the clarity of meaning.

Level 3:   An answer at this level is likely to:
- display a detailed understanding of the topic;
- make several points with support of appropriate exemplification and/or application of principle;
- demonstrate a sophisticated style of writing incorporating measured and qualified explanation and comment as required by the question and reflecting awareness of the complexity of subject matter and incompleteness/tentativeness of explanation;
- demonstrate a clear sense of purpose so that the responses are seen to closely relate to the requirements of the question with confident use of specialist vocabulary;
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which contribute to complete clarity of meaning.

NB A perfect answer is not usually required for full marks. Clearly it will be possible for an individual candidate to demonstrate variable performance between the levels. In such cases the principle of best-fit should be applied. Experience suggests that the use of exemplars within this mark scheme and the discussion which takes place during the Standardisation Meeting normally provides sufficient guidance on the use of levels in marking.

Annotation of Scripts

- Where an answer is marked using a levels of response scheme the examiner should annotate the script with 'L1', 'L2' or 'L3' at the point where that level is thought to have been reached. The consequent mark should appear in the right hand column. Where an answer fails to achieve Level 1, zero marks should be given.

    - Where answers do not require levels of response marking, each script should be annotated to show that one tick equals one mark. It is helpful if the tick can be positioned in the part of the answer which is thought to be credit-worthy.

General Advice

It is important to recognise that many of the answers shown within this marking scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally credit-worthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

GGA2

Question 1

(a)   (i)   **Loss** in Greater London or West Midlands (1).
         Gain in East Anglia or East Midlands (1).   **2 marks**

     (ii) Employment/economic factors (1) might encourage people to
           move from areas of high unemployment to regions where
           there are more job opportunities (1). Otherwise elaboration
           might refer to an example of such a move (1). Social factors,
           such as education, perhaps where students move to go to
           university (1) or where people move away from areas where
           crime rates are high (1). Stage in the lifecycle; where the
           elderly retire to coastal resorts and in the UK, particularly to
           the SW (up to 2). In some countries there might be a natural
           disaster forcing people to move away from a particular area.
           Hurricane Katrina and its impact on New Orleans could be
           relevant (up to 2). Maximum 1 mark for listing. Must be
           some elaboration for 3 marks.   **3 marks**

(b)   Migration can be classified by distance, nature of origin,
           scale, destination, regions etc. For example:
           • International migration is movement of people across
             international boundaries, e.g. large numbers of people
             moving from the Indian sub-continent to the UK in the
             1960s.
           • National or regional migration is large numbers of
             people moving from one part of the country to
             another, e.g. the drift towards the SE in the UK in the
             1980s and 1990s.
           • Rural to urban migration involves mass movement of
             people from the countryside to nearby urban areas.
             In the UK this type of migration was evident during the
             eighteenth and early part of the twentieth century, but
             in LEDCs it has been a feature since the mid-
             twentieth century.
           • Urban to rural migration involves large numbers of
             people moving from towns into the countryside. This
             has been a feature of population movement in the UK
             since the 1960s.

           Migration can also be classified by purpose or reason.
           Further classification considers whether the move was forced
           or voluntary, temporary or permanent.
           Reasons can be:

           • Economic, based around employment or standards or
             living.
           • Social, which would include health, education, stage
             in the life cycle and crime.
           • Cultural reasons might include discrimination because
             of race or religious beliefs.

- Political reasons would be linked to human conflict or perhaps one's political beliefs.
- Environmental reasons would include natural disasters such as floods, earthquakes or volcanic eruptions.

Level marking

Level 1 (Basic)   **(1-3 marks)**
Different types of migration may be described without an obvious understanding of how they can be classified. One basic classification may be given with little explanation e.g. temporary versus permanent.

Level 2 (Clear)   **(4-5 marks)**
The term classification will be clearly understood and candidates will provide an organised classification of migration by either scale or purpose, describing two or more types or scales of movement. At the top of the level there might be elaboration, using examples as illustration.

(c)   In 1900 we had reached stage 3 in the Demographic Transition Model. Birth rates had started to follow the already well-established downward trend of death rates. Natural increase at 11 per thousand, although higher than at any other time over the last 100 years, was already lower than it had previously been. Answers that start with stage one and two of the DTM will be self-penalising. Many will be restricted to Level 1.
The overall trend in natural increase shows a decline. Natural increase has fallen because:

- Birth rates are much lower than previously. They have been influenced by factors such as children being required by law to attend school and restricted from working, education of women and raised expectations including mothers starting to choose careers over a large family, and thus delaying the onset of childbearing.

- Death rates have also fallen because of improvements in standards of living, including access to clean water and health care. Over the last century life expectancy has risen considerably. Reductions in infant mortality have influenced the fall in the death rate too. Improvements in antenatal and neonatal care and the provision of vaccinations have been particularly important.

There have been anomalies in the overall trend. During the first and second world wars natural increase fell significantly because few babies were born and more people than average died.

Immediately after the war, in the latter part of the 1940s, there was a post-war baby boom which ensured that for a few years natural increase was higher than average.

It is possible that death rates will start to exceed birth rates very soon as the UK's population is ageing, as a result fewer people will have babies.

Level marking

Level 1 (Basic)   **(1-5 marks)**
Many answers at this level will provide a simple description of one aspect of natural increase, such as birth rates. Others will provide a basic answer referring to both births and deaths in a very limited fashion.

Level 2 (Clear)   **(6-8 marks)**
Clearly refers to both birth and death rate, but retaining an element of imbalance. Substitute depth for breadth

Level 3 (Detailed)   **(9-10 marks)**
The answer will demonstrate a more sophisticated understanding of the reasons why natural increase has varied over the last 100 years, and there is a balance in the coverage of birth and death rates.

Question 2

(a)   (i)   Larger towns have a higher retail turnover or this is a positive relationship (1). Correct use of values from Figure 2(a) (1). Some anomalies (1) St Albans and Hemel Hempstead. Not perfect relationship.

                2 marks

    (ii)   To calculate Reilly's Law the population of Luton and a neighbouring town would be needed (1) as would the distance between the two towns (1).

$$Db = \frac{Dab}{1 + \sqrt{\dfrac{Pa}{Pb}}}$$

    (1m for formula only)

Db - Breaking point in km from b (smaller town)

Dab – Distance in km between town a and b

Pa – Population of larger settlement a

Pb – Population of smaller settlement b (3m)

Reilly's Law estimates the break point between two settlements, and assumes that the larger the town, the stronger its attraction (1). The break point will be a greater distance from a large town than a small one (1).

                3 marks

    (iii)   The delivery area for shops and other businesses within a town can be established. A shopping survey could be conducted within a town to find out where shoppers live. The area from which doctors, dentists and other services such as schools draw their customers/pupils could be established by looking at databases. Local newspapers can be used to map the location of all the articles/adverts. Survey of tax discs.

Level marking

Level 1 (Basic)   **(1-3 marks)**
One simple method of working out the sphere of influence may be described, probably the questionnaire method of establishing where shoppers come from.

Level 2 (Clear)   **(4-5 marks)**
One or more ways of determining a sphere of influence will be outlined clearly and there may be a good use of Figure 2b to aid the answer.

(b)   Suburbanisation (the process that involves the decentralisation of people, industries and services from the central and inner cities to the edges of town) has occurred in the UK.

- Improvements in transport, firstly public transport systems such as trams and buses, and later private car ownership, resulted in people being able to live further away from their place of work.
- Before the 1950s planning legislation was lax around the edges of towns and cities, so building developers took advantage of peripheral land to build new housing estates. Many local authorities encouraged development and were willing to provide utilities such as sewers, electricity, gas and water.
- Housing in the inner cities was high density, old and often lacking in basic services such as central heating and bathrooms. As people became more affluent they preferred to move to a 'greener' environment. Houses in the suburbs had more space and usually a garden.
- Additionally, there was a need for more council housing because slum clearance in the inner cities in the 1960s displaced many people, who needed re-housing. Council estates were built on the edge of many of our cities.
- Luton and Dunstable are situated in the south east of England, within commuting distance of London. There has been a great demand for new housing in this area over the last 50 years, particularly since the Greenbelt around London restricted the building of new housing closer to London. Luton is within the zone designated by the present government for expansion of new housing.
- Demand for space from out of town supermarkets, retail parks and industrial estates/business parks have further added to the process of suburbanisation.

Level marking

Level 1 (Basic)   **(1-5 marks)**
A simple response, which describes residential sprawl and outlines the need for more housing and why people have moved to the suburbs. The reasons given why more housing has been necessary will be basic.

Level 2 (Clear)   **(6-8 marks)**
At least two factors encouraging the growth of suburbanisation will be covered in a clear fashion. Although the growth of residential areas will still be the main focus, the reasons why this has occurred will be more specific. Substitute breadth for depth here.

Level 3 (Detailed) **(9-10 marks)**

There will be reference to land uses other than residential and the response will demonstrate more specific knowledge of the subject content. Although there is no requirement to do so most Level 3 answers will refer to example of cities where suburbanisation has taken place, and there might be accurate use of named suburbs.

Question 3

(a)   (i)   The Oxford Science Park is located away from the centre of town / on the southern edge of the city / close to the M4 and M40 / on the A4074 / close to the ring road some 8km from the city centre.
Each point is worth 1 mark. **2 marks**

(ii)   Appears planned/ Spacious/ Buildings surrounded by landscaping giving an attractive environment (up to 2). Large areas set aside for car parking close to the main buildings (up to 2). Some areas as yet undeveloped/ room for expansion within the site (up to 2).
Internal roads planned with roundabouts to keep traffic moving (up to 2 marks). **3 marks**

(iii)   Costs might include:
- Environmental: Destruction of countryside and associated animal and plant habitats, increased pressure on local roads at peak times, visual intrusion for local residents.
- Social costs: Disruption to recreation.

Benefits:
- Links to Oxford University and scientists involved in research
- Location away from the congested city centre makes access to the science park easier for workers and suppliers (good road links to the motorways and into Oxford itself)
- Lower land values on the edge of town, more space available on a peripheral site
- Also economic benefits for the local community in jobs

Level marking

Level 1 (Basic) (1-3 marks)
The answer may be one-sided, otherwise it might just be general costs and benefits of a Greenfield site, unrelated to the information in Figure 3.

Level 2 (Clear) (4-5 marks)
The answer will relate clearly to Figure 3 and will provide both costs and benefits of the location of the science park.

(b)   Economic Impacts:

Unemployment is the main impact, both in the secondary industries affected and in linked/support industries. Additionally, the de-multiplier effect occurs because unemployed people have little money to spend on goods and services, particularly luxuries. Where traditional industries survived, they were often more efficient and achieved higher productivity and output than before, partly because of technological improvements/ mechanisation.

Environmental Impacts:

Derelict factories, storage yards, canals and railway sidings are unsightly and in some cases polluting to the natural environment. On the other hand, on a positive note, former factories have provided brownfield sites for new residential and business developments. Government and EU initiatives have also encouraged environmental improvement schemes, e.g. the Garden Festival in Stoke-on-Trent.

Level marking

Level 1 (Basic)   **(1-5 marks)**

A simple response which describes the effects of unemployment in generalised locations such as 'Wales'. Negative environmental impacts may also be sketchily described, but many answers will concentrate on only one type of impact.

Level 2 (Clear)   **(6-8 marks)**

The answer is likely to be one-sided in that it will probably concentrate on the economic or environmental effects of de-industrialisation. Locations will be relevant but there will be a lack of specific detail. Trade off depth for breadth.

Level 3 (Detailed)   **(9-10 marks)**

A well balanced answer which will provide more precision regarding the locations used, and both economic and environmental impacts will be considered.