



## **General Certificate of Education**

### **Geography GGA3**

*Specification A      Post Standardisation*

## **Mark Scheme**

*2008 examination - June 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.

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## GGA3

### 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.

**GGA3****Question 1**

- 1 (a) There is a clear relationship between precipitation and runoff (1) + 1 for evidence. However, the relationship is not perfect with the fourth and fifth basin for precipitation being reversed for runoff (1). Similarly, the Tees has a smaller proportion of precipitation becoming runoff than the Kent (1). Runoff displays a less clear relationship with discharge (1); the highest runoff (Tay) has the highest discharge, but the 2<sup>nd</sup> highest (Kent) has the fourth runoff. There are similar anomalies with discharge and precipitation (1) and evidence (1). Statements should relate to relationship before marks are awarded, i.e. need to link different columns of data.  $6 \times 1$  or  $3 \times (1 + 1)$ . **(6 marks)**
- 1 (b) (i)  $2 \times (1+1)$  for accurately drawing on bars for rainfall and the line for the discharge.  
It has not joined/line misses points – 1 mark only. **(4 marks)**
- 1 (b) (ii) Description (d) should refer to shape of flood hydrograph – relatively low peak of 9.5 cumecs; high time lag – 17 hours after peak precipitation; very gentle rising limb and almost no change until 8 hours after the start of the storm.  
Explanation (e) should use the clear clues given on Figure 2b.  
River flows through an area of Carboniferous limestone that is pervious – and water can therefore get underground through joints and bedding planes and then becomes slower groundwater flow to rivers.  
There is woodland within 1-3km of gauging station – this will lead to interception and some of the water being used by the trees – again slowing down the speed with which the water reaches the river.  
The presence of the artificial lake – will act as a store and delay the water reaching the gauging station.  
Reference may also be made to the low drainage density – again meaning it will take longer for water to get to river.

**Level 1 (1-4 marks)***Describes information on Figure 2a or 2b.**Likely to be generalised.***Level 2 (5-7 marks)***Begins to use information to answer question.**Description is specific with some reference to evidence.**Some use of appropriate terms in description.**Reasons are recognised and there is some understanding shown by developing points.***Level 3 (8 marks)***Clear, purposeful use of information.**Summarises the key points in description – terminology applied.**Will refer to evidence in support of points.**Reasons are clearly and sequentially developed.*

- 1 (c) Any valid label such as reference to the waterfall, gorge, contrasting rock types as shown by different strata, plunge pool as depicted by white water, extent of channel along bed, limited nature of channel before waterfall, nature of exposed bed, channelling of water to one side.  
6 × 1. (6 marks)
- 1 (d) Meanders are the obvious landform such as in 3109 (1); they vary in their sinuosity – some are more exaggerated than others (1) e.g. 3009/3109 and 3407/3507 (1); neck is much smaller in some than others as in previous example (1); could quote actual distances (1). Banks are steep in places as shown by slopes symbol such as 3109 (1) and contours being close together e.g. 3406 and 3108 (1) – this is indicative of a river cliff on the outside bend (1). In some places, there are steep banks on both sides e.g. 3108, 3109. Elsewhere, the land is much flatter e.g. east of the river in 3009 (1) – this is indicative of the inside bend (1) and the development of the flood plain (1). The slope symbol is found on the inside bend sometimes e.g. 3109 (1) – this may be the result of management, rather than natural (1). Flood plain – 3008, 3309 (1) is clearly shown by the absence of contours (1) and extends approximately 0.5km from river (1). Map evidence is needed to trigger marks – this can be via grid references or locating in relation to other features.  
8 × 1; 4 × (1+1); any combination. (8 marks)
- 1 (e) **Economic issues** (ec) – likely to relate cost of scheme versus cost of flooding - £40 million for one major flood even versus £84 million construction costs. Damage to over 5500 properties would be averted – implications of this could be developed – businesses, insurance costs. 2003 floods, Jubilee River saved 400 properties – so limited disruption.  
**Social** (s) – likely to focus on impact on people's lives – damage to homes, displacement; feeling that the flood relief channel has exacerbated problems downstream could lead to people feeling that the protection in areas further upstream was unfair.  
**Environmental** (en) – may consider knock on effect here instead of social category. Area protected was only placed on 'Flood Watch' during January 2003 – indicative of its effectiveness. However, there is potentially a cost to the environment as the interference has a variety of 'side effects' – increased deposition with a smaller volume of water and reduced channel capacity. Conversely, map reveals how there are other changes in conjunction with the flood relief channel that enhance the environment e.g. the new areas of trees to be planted and the adaptation of the channel for fish and wildlife. Comment should seek to offer an opinion, make a judgement on what is being identified and discussion should take place.

**Level 1 (1-5 marks)***Describes information in Figure 6.**Heavy reliance on Figure 6.**May have detail on one aspect or a variety of points.*

**Level 2 (6-8 marks)***Begins to use the information available.**Seeks to identify different categories – some reference to economic and environmental likely; imbalance is permissible.**There is intermittent reference to evidence in support.**Tentative / implied comment.***Level 3 (9-10 marks)***Clear, purposeful use of the information available.**Identifies categories – clear awareness – some reference to all.**There is reference to evidence in support, including reference to the map.**Clear, explicit comment.*

- 1 (f) (i) **Aim** (a) – e.g. To determine whether the socio-economic characteristics of a commuter village match those predicted (1); with reference to source e.g. suggested characteristics in Hornby and Jones, *An Introduction to Settlement Geography* (1).

**Hypothesis** – would expect there to be a match / partial match (1) + if specific e.g. would expect there to be a greater number of professional residents than in a non-commuter village (1) or expect numbers to vary in different parts of the village – greatest numbers in new housing estates (1).

3 × 1; up to 2 on either component, minimum 1.

**(3 marks)**

- 1 (f) (ii) e.g. questionnaire as data item.  
**Method** (m) – questions seek to consider such aspects as type of jobs that people do, qualifications they have, possibly categories of income, newspaper read (up to 1 for question topics); every tenth person asked (1) – up to 2 for sampling; may consider contingency plans if refusal; where questions asked – up to 2 and similarly when.  
**a - Advantages** may relate to even coverage of area regarding sampling; clear insight as asking people face to face and can link to actual location in village.

**d - Disadvantages** may relate to high refusal rates, people out if conducted in daytime and the impact on sample of perhaps largely elderly, retired people or housewives.

5 × 1, allow up to 4 on either component, minimum 1 on each component.

**(5 marks)**

**Question 2**

- 2 (a) (i) 2 schools, college, leisure centre, hospital, tourist information centre, youth hostel, museum.  
 2 x (1+1) Non tourist services – 1 for identification L3 or more needed  
 3 + 1 for order.  
 Leisure/tourist services – 1 for identification L3 or more needed 3 + 1 for order

**(4 marks)**

- 2 (a) (ii) **Advantages** (a) – information is readily accessible via OS map (1); would allow a wide study area to be considered quickly (1), provides clear information and types of services and number can be easily compared to determine types of settlement and hierarchy (1).  
**Disadvantages** (d) – there are discrepancies in the types of services present in the settlements (1) e.g. small settlements display very low order functions such as phone box, but these are not present in larger ones (1); the same is true for pubs and post offices – these are shown only in relatively small places (1); comparisons are therefore partial and unfair (1); the OS map does not show shops present (1); this is an important aspect of settlement classification (1) and so conclusions drawn may be unreliable (1).  
 6 × 1; maximum 4; minimum 2 on each component.

**(6 marks)**

- 2 (a) (iii) Location / size of other settlements (OS) (1) e.g. Linton (5647) (1) is relatively close so a shorter sphere may be present here (1) in contrast to the north east towards Haverhill (1).  
 Can argue reverse – depends on examples.  
 Road access (a) (1) – presence of good B routes may encourage residents of other settlements to use services – e.g. Great Chesterford (1) where the B184 provides a direct link (1). Opposing points can be stated.  
 Services (s) present in contrast to other settlements (1) e.g. Haverhill although it appears bigger (1), it does not have a hospital and so this will increase the size of Saffron Walden's catchment for this service.  
 The type of service the settlement is being used for (1) e.g. the presence of schools in Duxford and Linton will reduce the size of the sphere of influence for this service (1); however, these do not have a college and so the size will increase for this (1).  
 Aspects of physical geography (pg) may also be noted (1) e.g. Ashton is approximately 4km from Saffron Walden and Linton (1) but road to Linton is much flatter, straighter and therefore quicker than the road to Saffron Walden (1) and therefore people may choose to go there extending its sphere due to the impact of the relief on the road network (1).  
 Provided there is map evidence, marks are available for identification of factors. Map evidence is needed to trigger marks – this can be via grid references or locating in relation to other features.  
 8 × 1; 4 × (1 + 1); any combination.

**(8 marks)**



- 2 (b) Characteristics
- Age – sex – (str) two thirds are female; almost half are between 16 and 34; less than a sixth are over 55.
- Socio-economic profile (se) – over 50% of visitors have professional or non-manual occupations; unskilled form the smallest proportion – approximately 10%. Over half earn over £25 000 and 80% earn over £15 000; almost a fifth earn over £40 000.
- Frequency (f) and method of transport (m) – the vast majority come by private car – approaching 90%; a quarter come weekly whilst over one third visit at least monthly and a quarter range from twice to six times a year.
- (map) Large cities seen to supply customers to the Trafford centre with clear motorway access. Sphere of influence appears to be operative on 3 levels.
- (c) Comment may seek to link different items and note for example that amount spent reflects relatively high level of income; time spent that is only 2 and a quarter hours reflects proximity to large city and local catchment or access afforded by motorways in the vicinity. Similarly, this may encourage a lot of visitors to visit by car.

**Level 1 (1-4 marks)***Describes information in Figure 9.**Heavy reliance on Figure 9.**May have detail on one aspect or a variety of points.***Level 2 (5-7 marks)***Begins to use the information available.**Seeks to select key points.**There is intermittent reference to evidence in support, seeks links.**Tentative comment, which may be implicit.***Level 3 (8 marks)***Clear, purposeful use of the information available.**Key points are summarised, pertinent points are noted.**There is reference to evidence in support – links to the fore.**Clear, explicit comment, including map.*

- 2 (c) (i) Labels for buildings (b) likely to relate to age, number of storeys, specific design features, building materials.
- Labels for environment (e) likely to relate to landscaping, seating, feature near entrance, block paving, pedestrianised.
- Any valid point.
- Minimum of 2 on each component; maximum 4.
- $6 \times 1$  or  $3 \times (1 + 1)$ ; any combination. **(6 marks)**
- 2 (c) (ii) **Economic** (ec) prestigious development has encouraged investment by major chain stores such as House of Fraser. In addition, there are many opportunities for leisure and business orientated cafes, bars. However, will this have a negative impact on other areas such as the western area and lead to decline there?

**Social (s)** – contained within the development are 90 apartments – clearly an attempt to bring a residential population back to the centre. It is likely that the residents will be relatively well off as these are luxury apartments. In addition, there will be a range and an abundance of meeting places – bars, cafes, restaurants as well as concert venues all adding to the social vibrancy of the city. The question perhaps is does it meet the needs of all members of the community?

**Environmental (en)** – the development will change the face of the former riverside area from neglected to desirable; it will have a very positive effect. However, increased customers mean increased traffic, congestion and air pollution.

Comment should relate to the relative importance of each aspect; whether advantages (a) outweigh disadvantages (d); scale of this change.

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

*Describes information in Figure 10.*

*Heavy reliance on Figure 10.*

*May have detail on one aspect or a variety of points.*

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

*Begins to use the information available.*

*Seeks to identify different categories – some reference to economic and environmental likely; imbalance is permissible.*

*There is intermittent reference to evidence in support.*

*Tentative / implied comment.*

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

*Clear, purposeful use of the information available.*

*Identifies categories – clear awareness – some reference to all.*

*There is reference to evidence in support.*

*Clear, explicit comment.*

- 2 (d) (i) **Aim (a)** – e.g. To determine whether the temperature changes with distance from the centre in a town village (1); with reference to model – urban heat island (1).

**Hypothesis** – would expect there to be a change (1). + 1 if specific e.g. would expect temperatures to reduce as distance from the centre increases (1).

3 × 1; up to 2 on either component; minimum 1.

**(3 marks)**

- 2 (d) (ii) e.g. temperature as data item.  
Method (m) – identifies use of equipment – type of thermometer, where it is to be held, when measurements are to be carried out and where. 1-2 marks on each aspect depending on whether points are basic or elaborated.

**Advantages** (a) may relate to even coverage of area regarding sampling; collection at same time to reduce variability.

**Disadvantages** (d) may relate to inaccuracy of equipment, spread of sites over a long time, reducing comparability; inaccessibility of sites making coverage uneven.

5 × 1, allow up to 3 on either component, minimum 2 on each component. (Could consider 4 and 1, but there is plenty of scope here).

**(5 marks)**