



General Certificate of Education

Geography 5031

Specification A

GGA3 Geography Skills

Mark Scheme

2005 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.

General Guidance for GCE Geography Assistant Examiners

Quality of Written Language

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 clear style of writing which clearly addresses the terms of the question
 - demonstrate a degree of organisation and use of specialist terms.
 - demonstrate sufficient legibility of and quality of spelling, grammar and punctuation to communicate meaning clearly.

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/or 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 a '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

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

- (a) (i) 3×1 for correctly adding information to Figure 1a and 1b. **(3 marks)**
- (ii) Can assess at beginning or end.
 Allow up to 2 marks for assessment, which is valid and fits evidence.
 Precipitation generally shows 45 mm or more all year (1) with higher totals October – January (1) – 80 mm or more. (1)
 Lowest totals between February and June. (1)
 Temperature highest in summer with June/July – 18°C (1) and winter lowest - 4°C. (1)
 Discharge is highest in November/December (1) with lower ‘high’ in February and March.
 Lowest discharge – summer and under 1.5" in May –October. (1)
 May describe separately or make linked statements e.g. Discharge is high in November and December, as is precipitation (1) – with evidence (figures for both items) +1.
 Allow *linked* statements for single month.
- ✓a Assessment e.g. high precipitation total in November, December suggest a link with high discharge (1) but this is not the case in January where discharge is much lower than expected, i.e. some anomalies. (1)
 Fits to some extent (1).
 If separate description – maximum 2 otherwise 4 for linked description and 2 for supported assessment. **(6 marks)**
- (b) ✓f Factors must be those that can be deduced from photograph – (steep) slopes (1) – which will encourage more rapid surface runoff (1) as water will not have time to soak in. (1)
 Rock type (1) – as surface stream – must be impermeable (1) so discharge will increase as water will not be able to infiltrate. (1)
 Vegetation (1) – will cause interception (1) and so will reduce discharge due to increasing lag time. (1) If refer to differences between types of vegetation +1.
 Weather conditions (1) – overcast so evapo-transpiration levels relatively low (1) – reducing loss from system and so increasing discharge. (1) cloud cover/or height causing increasing precipitation (1) and increased input into system.
 Allow up to 3 on any 1 factor.
 1 per factor; 1 per basic point; 1+1 per developed point. **(8 marks)**
- (c) Up to 4×1 for characteristics of land form; ✓c
 Up to 4×1 for explanation of its formation-using water; debris clues from photograph. ✓e
 Characteristics, e.g. circular feature (1) smooth rock (1) potholes may merge (1) remnants of initial higher levels (1) load visible at bottom (1)
 Explanation - load used to abrade rock (1) known as pothole chilling (1) moving water – swirls around (1) encouraging circular shape. (1)

- (d) (v) Expect contrasts of long profile – typical, complete profile on Gill Beck as river descends from 350 m to just below 200 m whilst River Ure is an incomplete profile – generally at approximately 200m until eastern end of Aysgarth where drops to approximately 150 m.

Cross profile – Gill Beck is clearly relatively steep-sided V-shape – but becomes less steep as distance from channel increases whilst River Ure has wider, flatter valley floor – especially to western side e.g. 9690; valley itself is deeper and contours are generally further apart e.g. 9789 but at times sides are steeper – 983896.

- (c) Channel of Gill Beck is narrow whilst River Ure is wider – 1mm → 50m; also straighter – River Ure shows some evidence of meandering – 9690 – takes up whole of valley floor; appear no clearly distinct features on Gill Beck – but relatively steep in places – suggesting relatively rapid flow whilst descent near Aysgarth and label Aysgarth Falls indicative of waterfalls at this point – and valley becomes more enclosed – narrower, steep-sided – grid square 0188.

Level 1: (1-3 marks)

Describes either the valley or the channel – perhaps both in a random way.

Description of valley or channel of each river is separate.

Generalised use of map evidence.

Level 2: (4-6 marks)

Aware of need to separate channel and valley and does so in a more organised account.

Begins to contrast – although this may be inconsistent.

Some specific use of map evidence – map location and perhaps 4 figure grid references.

Level 3: (7-9 marks) (9 marks)

Clearly targets information to question.

Valley and channel landforms clearly contrasted.

Map evidence is used frequently and in support of specific points with reference to grid references, certainly 4-figure and perhaps 6-figure – and reference to height – use of contours.

- (e) Economic issues (e) – large amount of money invested allows development of resorts like Las Vegas; growth of Phoenix – but is such rapid, large-scale growth desirable? – 3000 people a month is population of some small towns/large villages in UK.
Cost of desalination plant – \$300 million – paid for by US in Yuma due to poor quality of water by this stage.
Cost of flooding given high cost of protection.
Mexicali Valley – clear some of income for agriculture – yet water quality is saline for irrigation – impact of this.
Is providing swimming pools, power for air-conditioning really worth cost involved?
- Political issues (p) – Colorado and tributaries flow through a number of US States and into Mexico – whose water is it? Who has right to it – very little now reaches Gulf of California. Should California seemingly have such a high proportion? What is their right?
Is it right that politicians in California support schemes to win votes?
Is this only purpose? Or is it an educated, informed decision?
What of Native Americans? Their rights? Is 10% of Arizona’s allocation enough? Elements of indigenous population issues; state and international politics here.
- Environmental issues (en) – clearly many –
Quality of water and its high saline content – impact on agricultural land – southern Arizona and Mexico; impact on groundwater supplies; impact on habitats – flooding of vast areas to create reservoirs on one hand and restricting sediment building up in delta area or the other – clear impact on river processes – material deposited in lakes which would not be the case – and can infer subsequent clear water erosion at the dams. Substantial loss of water from some reservoirs due to conditions being less than ideal – very hot so evaporation losses high.

Level 1: (1-4 marks)

Describes some of problems, which are apparent.
No clear organisation/classification.
Likely to focus on environmental issues.
Heavy reliance on Figure 6.

Level 2: (5-7 marks)

Begins to use information in Figure 6.
Will consider environmental and one other category – although there may be some imbalance.
Tentative comment – begins to discuss, debate.

Level 3: (8-10 marks) (10 marks)

Clear, purposeful use of information in Figure 6.
Will consider all elements with overall balance between environmental and economic/political.
Will use Figure 6 to support points made.
Explicit comment – clear discussion, debate.

- (e) (i) Valid aim – 1 mark. If well developed – 2 marks
Valid general hypothesis – 1 mark + 1 if developed; specific e.g.
Aim – to see if different types of shops and services cluster in the
CBD.(1)
Hypothesis – Clothes and shoe shops will occur next to each other
mainly in the busiest area of the CBD. (2) **(3 marks)**
- (ii) Pedestrian counts.
Counts lasted 5 minutes (1); everybody passing on side of road stood
counted (1); points were every 10 stores apart. (1)
Advantages ✓ a
All of CBD covered (1) as sample systematic. (1)
Counts all lasted the same time (1) so it was a fair test.
Maximum 4; minimum 1 on any element. **(5 marks)**

SECTION B

Question 2

(a) (i) 3×1 for appropriate size square. (3 marks)

- (ii) Maximum 6 for either description ✓ d or explanation ✓ e.
 Description – areas of greatest increase are conurbations of Greater London, West Midlands and West Yorkshire (1) which are clearly separate. (1)
 Generally more new homes needed in the southern two-thirds of area (1) although counties such as Oxfordshire, Surrey etc. around London relatively lower than expected – less than . (1)
 Category of 75000 – 99999 relatively widely spread (1) with counties in north e.g. Lancashire, in east –Lincolnshire, south-west – Devon and southeast – Kent. (1)
 Lowest in northeast. (1)
 Many other potential points – allow up to 2 if clearly elaborated, evidence well used, 1 per basic point.
 Need to refer to more than one area for marks relating to pattern.
 Explanation – highest increases in conurbations – due to regeneration (1) and elaboration (1); trend of reurbanisation (1) and specific attractions. (1)
 Some areas may be limited in numbers due to planning controls (1) – may explain relatively lower numbers in Surrey etc.
 Lowest increases due to areas recovering from economic decline (1) e.g. loss of major industries such as shipbuilding (1) causing out migration or limited desirability of such areas – climate, environment. (1)
 May refer to relative attractiveness of locations – impact of immigration or innmigration (1). Pull factors – up to 2.
 Could consider why differences in demand for new houses with reference to population structure – more single people in some areas; perhaps higher divorce rate etc. (1)

(8 marks)

- (b) (i) Any valid label, which clearly indicates different changes – 1 per basic, undeveloped point; 1+1 per developed point; 1+1 per developed point. Maximum 2 per change identified – 4 per single category. Features must be labelled on appropriate point or around. Need to appreciate rural-urban fringe at edge of built-up area and pressures expanding town is likely to put on it.
 (h) Housing areas – e.g. clear expansion along A11 56 – Warren Heath (1), area is 2044 (1) which appears to make area of Kesgrave join onto edge of Ipswich (1)
 Further east – 2245 – clear expansion of Kesgrave. (1)
 (f) Facilities - e.g. Suffolk Nuffield Hospital – 215437. (1)
 Hotel at 205413. (1)
 Two parking areas clearly present – in south-west of area - country park. Sewage works.
 (r) Recreation – e.g. New golf course – 191402. (1)
 Two areas on east bank of river now Country park (1) designated Suffolk Coast and Heaths Path (1).
 (i) Industrial area expanded 1941/2041
 Sewage works - 1741
 (t) Transport changes – e.g. A1189 – 1941.
 Loss of airport

(6 marks)

- (ii) Likely to consider – proximity to town centre - 3½-5 km away or linked via A1189/A1156 (1) and opportunities offered there. (1)
 Accessible location as on A14 primary south with junctions with radial routes – A118M, A11 J6, A137 close by. (1)
 Substantial size on edge of current built-up area (1) - 1½ sq.km approx. (1) land is flat – no contours.
 Easy to build. (1) Size offers opportunity for large development (1) opportunity limited in built-up areas. (1)
 Area to south offers opportunity for recreation (1) of a varied nature e.g. golf, country park. (1)
 Surroundings will be pleasant – open views to south, wooded areas. (1)
 Land has been used before (1) so attraction would be to use again (1) rather than allow it to develop into a substantial eyesore. (1)
 Comment likely to relate to advantages of building on brownfield site; assessment of advantages of site.
 Maximum 6, minimum 2 on each component. ✓ c – comment. **(8 marks)**
- (iii) Residential (r) – building of residential areas in excess of 500 m^{1/2} km (w-e) in northern part of airport site should meet need for some of increased housing demanded in Suffolk.
 Housing will be ‘mixed’ thus there should be a variety to meet needs of different groups of people in the community e.g. starter homes and larger family homes ... at different prices.
 Economic (e) – there are attempts to provide employment opportunities with expansion to existing industrial area. There is also a future employment area, and services planned may also offer some local employment.
 However, there is a closed factory with no plans to develop this – which seems a wasted opportunity.
 Services (s) – a clear attempt to provide facilities in the area – community centre, restaurant, sports park – which would accommodate potential variety of ages, interests. These would build on existing sports and playing fields and fitness centre. A new school is to be built in the central part allowing ease of access for surrounding residents.
 Within easy reach of new development is a Sainsbury’s supermarket.
 Environmental (en) – clear zoning has/will take place with residential uses separate from industrial.
 Main road sees location of services.
 Provision of open space, woodland, native reserve make peripheral area attractive.
 Seems to be a clear attempt to meet a variety of needs with consideration of overall needs of community. Layout rather than just presence considered.
Level 1: (1-3 marks)
 Describes features present – may do so without any clear classification.
Level 2: (4-6 marks)
 Begins to use Figure 10.
 Extracts information to show how at least two of categories are considered
 Tentative evaluation.
Level 3: (7-8 marks)
 Clearly targets of Figure 10.
 Reference to at least three categories – emphasis is on how development meets different needs
 Explicit evaluation. **(8 marks)**

- (c) Clearly a variety of groups.
Local residents most 'general' with concerns throughout south-east – clearly visible on map with potential new building not just taking away countryside but also joining settlements together if prediction is correct e.g. Ashford and Maidstone.
Clear feeling that sprawling development is undesirable and statements evocative – “This is sheer vandalism ... spoiling the countryside for everybody.” Also states, “he is not a Nimby ... but some suggestion that this may not be the case.”
Loss of green space – countryside feel is seen to be undesirable.
Local councillor – Ashford Council shares similar view and raises question of services – but is there a political motive? Similarly, Ashford MP ... not wanting expansion for communities – talks of lying down in front of bulldozers ... a true belief/commitment or a way of pleasing the electorate?
Values of these 3 clearly seemingly the same – opposing development on greenfield sites – but for what purpose?
Also other organisations – NFU – clearly also against such proposals – feel limited protection of farmland already – and things will get worse.
Town & Country Planning Assn. – however has a different opinion – believing it is better to build in areas of growth and demand i.e. southeast. Similarly, Cambridge new Town Corporation – developers support large 20000 development north of Cambridge ... to their benefit – not developers and easier to plan in this empirical way instead of pre-covered or brown field sites.
Countryside Agency comments on this issue being one not of quantity but of quality – that sympathetic development with greater imagination used need not enhance perception of crowding or overcrowding. This is somewhat different now to other countryside representations.
Comment (c) should consider variety of values and attitudes – depending on interest; perhaps underlying reasons different to those that surface; strength of feeling of protecting what initial local residents have; need to try to provide adequate homes without spoiling the environment/alienating part of population unlikely – attitudes entrenched.

Level 1: (1-3 marks)

Describes different opinions – may be one sided.
Heavy reliance on Figure 11.
Random structure without organising into different views.

Level 2: (4-6 marks)

Begins to use information in Figure 11.
Identifies contrasting opinions and individuals/groups.
Begins to refer to contrasting values and attitudes of those concerned at the top end.
Tentative comment.

Level 3: (7-9 marks) (9 marks)

Clearly targets information to purpose.
Uses information shown in Figure 11 and offers a range of different opinions in an organised account.
Clear reference to underlying values and attitudes.
Explicit comment supported by evidence.

- (d) (i) Aims to determine whether river ... 'changes downstream'. (1)
If aim well developed (2).
Hypothesis – the velocity will increase downstream. (2)
Velocity will change downstream. (1) **(3 marks)**
- (ii) Velocity – a 10m section was measured along the river bank (1) this was
marked by two ranging poles (1) a cork was dropped into the river (1)
just upstream of the first ranging pole (1) and timed as it passed the first
ranging pole until it reached the second. (1)
Advantages ✓ a – will work in any depth of water. (1)
Cheap and easy to use. (1)
Maximum 4; minimum 1 on any element. **(5 marks)**