



General Certificate of Education

Geography 6036

Specification B

Unit 5 GGB5

Mark Scheme

2007 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.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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GGB5

General Instructions to Examiners on Marking

It is important that every Examiner marks the scripts to the same standard as the rest of the panel. All Examiners must operate the Marking Scheme in a similar and consistent manner, and hence, they must all participate in the application of that scheme at the Standardisation Meeting. In particular they should take careful note of all decisions taken or changes made at the meeting. Examiners are allocated to a Team Leader for the period of examining, and any difficulties that arise should be discussed with that person.

The Marking Scheme

The Marking Scheme consists of two sections for each question or sub-question – the Notes for Answers and the Mark Scheme itself.

Notes for Answers (NFA)

These indicate the possible content for the various sections of the question paper. In some cases (for example short answer questions) the NFA may indicate the only response that is acceptable, but in many cases they indicate either a range of suitable responses, or an exemplar of the type of response required. Therefore in most cases, the NFA do **not** provide model answers, and should not be regarded as such. More NFA may be added at the standardisation meeting if it is felt by the Principal Examiner that details of appropriate ways of answering the question have been omitted.

The Mark Scheme:

This is provided in italics and provides the instructions to Examiners as to how they are to assess the work of candidates. The number of marks allocated within the mark scheme to a question should correspond to the number of marks for that question on the question paper.

There are two ways in which the Mark Scheme operates:

- (a) it indicates how the marks to short answer questions are to be allocated – usually to a maximum of 4 marks.
- (b) it indicates how Examiners should move through the Levels in a level response mark scheme – usually to all questions of 5 marks or more. Each Level has a levels descriptor, with clear statements of the “triggers” to move candidates from one level to another. Each Level contains a range of marks as shown on the Mark Scheme.

A number of features have been used to distinguish between Levels, for example:

- a number of characteristics, reasons, attitudes etc.
- the degree of specification, for example the use of specific case studies, or accurate detail
- responses to more than one command word, for example, describe and suggest reasons
- the degree of linkage between two aspects of the question
- the depth of understanding of a concept.

The Marking Process

A sample of an Examiner's marked scripts will be marked again by a Senior Examiner according to the procedures set out by the Board. Also the scripts may be re-examined at the Awards Meeting and the subsequent Grade Review. Therefore, it is most important that Examiners mark clearly according to the procedures set out below.

- All marking should be done in red.
- The right-hand margin should be used for marks only.
- The overall mark for a question must be ringed at the end of the answer.
- The total mark for the question must be transferred to the front of the script.
- The left-hand margin is where an indication of the level achieved is written.
- Comments and codes (see below) may also be written on the left.
- Indications of the levels achieved may also occur in the body of the answer if this is easier for the Examiner to apply (e.g. in the marking of diagrams).
- Ticks should be used for short answer responses and Level I responses only, with one tick representing one mark (to the maximum allowed in a Levels scheme)
- Levels II, III and IV should be indicated with a Roman II, III or IV on the script, and this symbol should be used each time this Level is achieved. Examiners may wish to bracket an area of text where this level of response has been achieved.
- Once a candidate has reached Level II, additional Level I credit should be indicated using a + symbol. If these points are of sufficient quality **one additional mark** can be awarded (assuming no further Level II points are made).
- Examiners may indicate strong Level II or III material by writing "Level II (or III) – "good" in the left hand margin of the script. The Examiner should ensure that this is reflected in the **awarding of an appropriate number of marks** at the end of the answer.
- Level III is to be used only for questions of 9 marks or more, and Level IV is to be used only for questions of 25 marks in total.

Other Mechanics of Marking

- Underline all errors and contradictions.
- Indicate repeated material with "rep".
- Put a wavy line in the left-hand margin to indicate weak dubious material.
- If the rubric is contravened, mark all answers but count only the best mark towards the candidate's total mark for the script. Put the mark for the question on the front of the script in the usual way, but also write "RAM Rubric" on the front of the script.
- Large areas of text must not be left blank – use the wavy line or write "seen" alongside the text. All pages must have an indication that they have been read, especially supplementary sheets.
- Unless indicated otherwise always mark text before marking maps and diagrams – do not give double credit for the same point made in the text and a diagram.

Quality of Language Descriptors

The following descriptors concerning the quality of language must be applied to **all** questions in which candidates are required to produce extended writing. To attain full marks available at a level of response, the appropriate Quality of Language descriptor must be achieved. Use the same quality of language levels as are used in the geographical element of the mark scheme under consideration.

Three-level descriptors

- LEVEL 1**
- Style of writing is suitable for only simple subject matter.
 - Expression of only simple ideas, using a limited range of specialist terms.
 - Reasonable accuracy in the use of English.
- LEVEL 2**
- Manner of dealing with subject matter is acceptable, but could be improved.
 - Reasonable clarity and fluency of expression of ideas, using a good range of specialist terms, when appropriate.
 - Considerable accuracy in the use of English.
- LEVEL 3**
- Style of writing is appropriate to subject matter.
 - Organises relevant information and ideas clearly and coherently, using a wide range of specialist vocabulary, when appropriate.
 - Accurate in the use of English.

Two-level descriptors

- LEVEL 1**
- Manner of dealing with subject matter is acceptable, but could be improved.
 - Reasonable clarity and fluency of expression of ideas, using a good range of specialist terms, when appropriate.
 - Considerable accuracy in the use of English.
- LEVEL 2**
- Style of writing is appropriate to subject matter.
 - Organises relevant information and ideas clearly and coherently, using a wide range of specialist vocabulary, when appropriate.
 - Accurate in the use of English.

Question 1**Notes for answers**

Rainfall totals are:

Musoma	870
Arusha	840
Tanga	1250
Morogoro	875.

In other words, the three inland stations have very similar totals, but the coastal station has approximately 50% more than the others.

All four stations have their maximum rainfall in March or April.

Musoma is clearly bimodal with a second peak in October/November and with clear dry seasons in between these two peaks.

Arusha is also bimodal, but the June to September dry season is more marked than the January/February dry season.

Tanga is also bimodal but there is no obvious season of drought. Here the December to February dry season is more marked than that in July to September.

Morogoro, by contrast, has a single wet season, starting in November and running through to May, with a peak in March/April. There is a single, obvious dry season from July to September.

All four stations are profoundly influenced by the movement of the ITCZ and the associated belt of low pressure and rainfall. This moves north and south of the equator following the apparent movement of the overhead sun. As Musoma, Arusha and Tanga are within about 5° of the equator they have two separate wet seasons when the sun appears to be overhead, and two dry seasons when the ITCZ moves past them.

The later onset of the April wet season, and the earlier onset of the September wet season in Tanga are probably consequences of it being farther south than the other two stations.

On the other hand, Morogoro is almost 7° south of the equator, so the two wet seasons merge here.

Reference to Fig 3. Most spread between 600-1000
Rather wetter between 1960/1972, 1937/1947
Possibly dryer between 1977/1987
Shows climate is cyclical. Could be due to el Nino.
May refer to global warming.

Mark scheme

Level 1 The rainfall totals are described. The seasonal distribution is described in basic terms, with periods of maximum and minimum described for at least one of the stations. Any attempt to explain the rainfall pattern may include recognition of the importance of the overhead sun causing convection rainfall, but does not develop a comparison between the four stations. (1-5 marks)

Level 2 The rainfall totals are described precisely and compared clearly. The seasonal distributions are described clearly. (6-10 marks)

The answer shows a clear understanding of the movement of the ITCZ and shows how this leads to some differences in the distributions at the different stations.

There is some recognition of the differences between coastal and inland stations, and some explanation of these differences.

Some recognition of the altitude differences and explanation.

Level 3 The rainfall totals and patterns of distribution are described and compared in detail. Candidates might have worked out the % difference between Tanga and the other stations' totals as part of the description. (11-13 marks)

The answer shows a detailed understanding of the effect of the movement of the ITCZ on the climates of all the stations. Subtle differences in rainfall intensity and length of season and onset of the seasons are examined and explained in detail.

The answer goes beyond looking at the movement of the ITCZ to explain the differences. The monsoon affect may also be referred to in a relevant way.

The answer is synoptic.

Question 2

Notes for answers

The area has savannah vegetation. This consists of grassland and trees.

Photo A has low grass, shrubs, some spiky plants that look like pineapples, and quite a large number of trees. These are medium height, with thin branches and small leaves. Much of the vegetation is greenish, so it seems as though the picture was taken in the growing season.

Photo B is similar, but has one taller tree, that appears to have spread wider than those in Photo 1. Its branches are also higher than the trees in Photo 1.

Photo C shows a village in the middle of the photo. Around this, there are fewer trees and the grass appears to be shorter. It is probably patchy and there is clear evidence that it is being grazed by cattle.

Photo D also shows the area around a village. Again, there is short grass and fewer trees and shrubs than in Photos 1 and 2.

In Photo E, the grass is a bit longer than in the previous shots. There is a variety of trees and shrubs, but again they look to have thin branches and small leaves. The vegetation is being grazed - and sheltered amongst - by antelope.

Photo F has longer grass, and similar patterns of trees to Photo 5. There is an elephant crossing the shot, and clear evidence of the photograph being taken from a vehicle - possible evidence of camera safari. These might both have an effect on vegetation.

Mark scheme

Level 1	The answer consists of basic description with little detail. Some of the answer may bear little relationship to what is actually shown in the photos, and merely describe what the candidate has learnt in class.	(1-4 marks)
Level 2	The answer is clear and picks out some clear points from the photographs. There is evidence of some observation and analysis of the photos, which has been set in the context of some knowledge of the topic.	(5-8 marks)
Level 3	The answer is detailed. A variety of different features has been observed from the photographs and described in appropriate geographical terminology. Aspects of each of the photographs have been discussed. Patterns have been observed, in addition to individual features of particular plants. The answer has been clearly linked to geographical knowledge from the course.	(9-10 marks)

Question 3

Notes for answers

Grazing - by herds of wild animals and by herds and flocks controlled by man.

Poaching - reduces the size of the herds; may help to maintain a balance but may seriously upset that balance because of lack of control.

Licensed hunting for sport or meat - as above but ought to be better controlled.

Fires - both natural and man-made.

Development of stocking levels, and increased farming activity as a consequence of the population increase in recent years.

Hunting and poaching has affected the numbers of grazing animals. Most of this takes place outside the park, but it affects the herds that migrate into the Park.

Rinderpest reduced animal numbers in the early years of this century.

Ivory poaching in the 1970s, at a time when there appeared to be a change in the length and distribution of the rainy season throughout the area.

Some of the areas shown have obviously developed a covering of woodlands which must have developed during the 1970s, and reached a point beyond which they could survive when the elephants were re-established in the park. Some of these trees show evidence of having been grazed by various species - including giraffes.

Nowadays burning of the grasslands in the dry seasons is controlled by rangers, and so trees are more likely to remain and to become more established.

Around the settlement, grazing appears to be heavier than elsewhere. This is causing some degradation of the grassland, with grass looking more sparse and shorter than elsewhere.

Topography appears to play some part in the development of the vegetation, with a bigger variety of different species being present on the land with more broken relief.

Link observations from the photos and the text of the AIB to material studied during the course - to case study material or to theory.

Mark scheme

Level 1 The answer consists almost entirely of material lifted from the AIB. (1-5 marks)
Any attempts to explain the links between vegetation and other factors are basic and are not developed.

The answer relies on simplified assertions rather than clearly developed logical argument.

Level 2 The answer makes some clear observations from the photos and provides information from the AIB or from the candidate's knowledge and then starts to develop clear links between these observations and the development of the vegetation. There are clear references to the development of particular vegetation communities in the National Park. (6-10 marks)

OR

Ideas are developed logically, although the arguments may not always be fully developed. The answer makes a clear attempt to assess the degree to which human and other factors are responsible for the present vegetation.

There is some balance in the answer.

Level 3 Detailed links between the vegetation of the areas shown in the photos and the factors discussed in the AIB are developed. (11-15 marks)

The answer considers a wide range of different factors and their inter-relationships.

Logical explanations of the development of the vegetation are developed thoroughly.

The answer is balanced and considers a range of possible explanation of the development of the vegetation. It then makes a detailed assessment of the extent to which human influences are responsible for the vegetation.

At the top of the level, some clear contrasts are seen between the different vegetation types in the area, and these differences are explained in terms of the processes that operate in the area.

The answer shows synopticity.

Question 4

Notes for answers

At present it is estimated that 200 000 animals are hunted each year - out of a total of around 2 millions animals, i.e. around 10%. Many of these will be strong specimens, not the weak animals that are usually killed by predators.

Candidates will have to speculate on how the ecosystem, including the human inhabitants might change. Credit must be given for any reasonable deductions, but examiners should expect deductions to be based firmly on geographical understanding applied to the information from the AIB. For instance

If the poaching is stopped then the herds of wild animals will increase. This could lead to:

- over-grazing, leading to destruction of the grass cover in some areas, which might then lead to greater erosion of the surface and loss of soil inducing further degradation of the ecosystem
- destruction of tree seedlings and saplings, stopping the growth of replacement trees. The older trees that are present now would die out, and the younger trees would age, causing a loss of shade and habitat for species such as the gazelles
- pressure on the grazing communities living around the borders of the park, which might push them to try to make even greater use of land in the park. This push would be another source of food and income. Alternatively, it could push them to leave the land for the cities, triggering a whole series of possible changes to the ecosystem.

All the changes listed above would probably lead to degradation of the grassland ecosystem leading, in turn, to decline in the size of the herds, until a balance is re-established between grass and herbivores unless the degradation had gone so far as to damage the soil, in which case the equilibrium would be established at a lower level than before.

Candidates may confuse “poaching” and “hunting”. Allow some flexibility.

Mark scheme

Level 1 At the bottom of the level the answer consists of unsupported speculation which shows only the most basic knowledge or understanding of the topic. (1-5 marks)

Basic knowledge with some basic understanding moves the answer up the level.

Level 2 The answer makes at least one clear point in which knowledge and understanding are linked to make sensible, geographical predictions. (6-10 marks)

As more such clear points with clear links are made, the answer should move up through the level.

Level 3 The answer is detailed. A number of points are made in which precise reference is made to how the area might change, and these points are based on knowledge of the area - probably gained from the AIB - placed in a context which shows good geographical understanding of the ecosystem. (11-12 marks)

The answer is synoptic, with the candidate drawing on understanding of aspects of climate, soils, ecosystems, human activities such as tourism and nomadic pastoralism, etc., to write a coherent and reasoned prediction.