



General Certificate of Education

Geography 6036 *Specification B*

GGB6

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.

GGB6

1. (a) Notes for answers

The answer should establish the general aim and purpose of the investigation. This could be to test out textbook or classroom theory in the real world; or it could be to study an environment, e.g. to investigate the changes in characteristics along the course of drainage channel. The hypothesis should be clearly stated in the correct form; research question should show clearly what is to be studied and tested. It should develop out of the aim of the study.

Level 1

- *General aim is stated, but it may be vague and unclear.*
 - *Question may be posed but not clearly stated as hypothesis or research question.*
- (1 - 2 marks)**

Level 2

- *At the lower end of the level, one hypothesis or research question is clearly stated.*
 - *At the top of the level, it is linked to and develops from, the aim of the fieldwork.*
- (3 - 5 marks)**

(b) Notes for answers

Any technique of presentation, which can link to the hypothesis, is acceptable. The answer should show how the method was used: 'a handbook on how to use that method'.

Diagrams are a very suitable way of showing how the technique should be used.

Level 1

- *Basic identification of a method.*
 - *Simple description of the technique.*
 - *There may be obvious mistakes or omissions in the answer.*
- (1- 2 marks)**

Level 2

- *The answer describes the method clearly.*
 - *The method is clearly linked to the aims of the investigation.*
 - *To achieve the top of the level, the description should be full and complete.*
- (3 - 5 marks)**

(c) **Notes for answers**

Reference could be made to clarity of display, suitability of the technique for showing the particular type of information, and ease with which the data can then be analysed, compared etc.

Level 1

- *The answer is basic and concentrates on ease of use and clarity, without understanding and explaining the more technical points such as the uses to which the presentation technique will be put.*
- *There is little relevant comparison with other possible techniques of presentation.*

(1 - 4 marks)

Level 2

- *Can reach level 2 with clear advantages/disadvantages of chosen technique.*
- *The answer shows a clear understanding of the uses of the technique and can justify the choice in a way which shows understanding of the enquiry process.*
- *To reach the top of the level the answer must deal clearly with alternative means of presentation, showing why the chosen method was most suitable for its purpose.*

(5 - 8 marks)

(d) **Notes for answers**

The answer must be based on fieldwork that has been carried out by the candidate. It might refer to both primary and secondary data. Ideally it should be written in the first person. It should be internally consistent and, ideally, should show a sense of place.

Requires some appreciation of the geographical significance of the results, show they can be used to reach conclusions and how the conclusions relate to general geographical theories.

There should be some attempt to evaluate the results.

The results should be considered in the context of the aim and/or of the specific environment being considered.

There should be some consideration of the way in which the study has confirmed, reinforced, or perhaps even contradicted, previous understanding. There are likely to be some anomalies worthy of mention and discussion.

Level 1

- *A text book answer with little reference to the personal study.*
- *The answer is presented in general terms with no direct reference to the candidate's own results.*
- *Any attempts to relate findings to understanding are written in the most general terms.*

(1 - 3 marks)

Level 2

- *To reach this level there must be clear reference to actual results and a conclusion which can be drawn from those results.*
- *To move up through the level the answer should establish some clear connection between the results and the candidate's understanding of the environment and/or theory being studied.*
- *The candidate moves on from consideration of the hypothesis to try to explain why anomalies may not have fitted the hypothesis.*

(4-7 marks)

2. (a) **Notes for answers**

- (i) 693.75
- (ii) 651.94 (no other answer is acceptable)

1 mark for each correct answer.

(b) **Notes for answers**

- (i) See graph
- (ii) Line anywhere between 4th & 5th and 12th and 13th.
- (iii) SE England = 243 225 207 (or in between)
N. Nigeria = 476 419 362 (or in between)

Mark Scheme

- (i) Award 4 marks. Subtract 1 mark for each plotting error.
- (ii) Award 4 x 1 mark
- (iii) Award 2 x 1 mark

(c) **Notes for answers**

Standard deviation indicates the degree of clustering of individuals values about the mean.

In a normal distribution 68% of the values lie within ± 1 standard deviation of the mean.

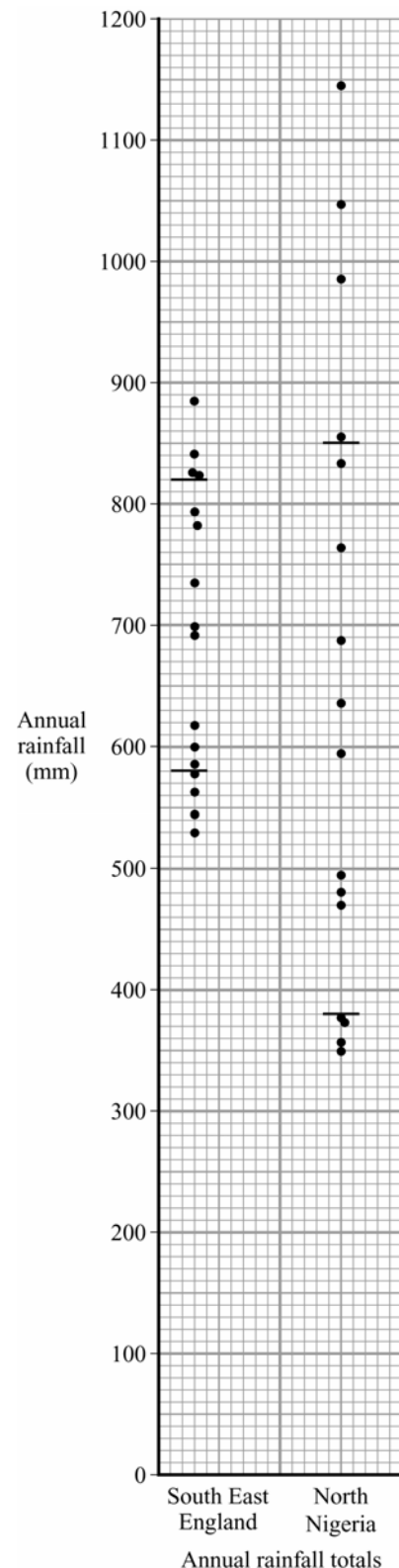
Mark Scheme

Approximate definition
e.g. spread of data = 1 mark

Precise definition e.g. measure of variation from the area = 2 marks

Elaborated definition = 3 marks

Can either be a reference to 68% or an expression of what these data show given in clear/everyday language



(d) Note for answers

The mean values are very similar.
Distribution is much more dispersed in N. Nigeria.
IQR is almost twice as large in N. Nigeria.
SD is more than twice as large in N. Nigeria.

Farmers need to be able to predict the rainfall if they are to plan successfully. On their predictions depends the type of crops that can be grown. Therefore, SE England, with its comparatively narrow range of rainfall variability, allows fairly reliable predictions, whereas N. Nigeria is far less easy to predict. Farmers in Nigeria will have to plant a wider range of crops, to allow something to be successful in all rainfall situations. Those in England can concentrate on a smaller, more specialised range.

In LEDCs, like Nigeria, a lot of water will be abstracted directly from rivers. The flow of the rivers is likely to be more erratic, leading to problems for farming and for domestic use.

Alternatively, storage can be used to supplement rainfall. Again, though, unreliable rainfall means that an area is less likely to have water available to store. Given that Nigeria is a LEDC there is likely to be less money and fewer resources available to plan and build water storage and transfer infrastructure.

The annual totals do not show seasonal variation, which is much greater in N. Nigeria than in SE England. This exacerbates Nigeria's problems as described above.

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Level 1

The answer makes some basic comments on the figures, which shows some awareness of the distribution, but there is a lack of detail and/or clarity of understanding.

*There is a basic understanding that the **reliability** of rainfall affects a farmer's choice of crops and/or domestic user's supplies.*

(1-3 marks)

Level 2

There is a clear understanding of the idea of distribution of results. As different measures of dispersion are described clearly the mark moves up through the level. There is a clear understanding of the ways that differences in reliability might affect farmers and/or domestic users in the two areas.

(4-7 marks)

Level 3

There is a detailed understanding of the way that all the measures of dispersion can be used.

The answer shows a detailed understanding of the way that differences in rainfall reliability affect the people in the two areas. Answers in this level will often make use of knowledge of the annual rainfall patterns of rainfall in the two regions.

(8-10 marks)