

GCSE 2004

June Series



Mark Scheme

Geography B

(3032/1F)

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 from:

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General Certificate of Secondary Education
AQA GEOGRAPHY B
FOUNDATION TIER MARKING SCHEME
PAPER 1F

GENERAL GUIDANCE FOR GCSE GEOGRAPHY ASSISTANT EXAMINERS –

Quality of Written Communication

Where candidates are required to produce extended written material in English, they will be assessed on the quality of written communication.

Candidates will be required to:

- present relevant information in a form and style that suits its purpose;
- ensure that text is legible and that spelling, punctuation and grammar are accurate;
- use specialist vocabulary where appropriate.

Levels Marking – General Criteria

Where answers are assessed using a level of response marking system the following general criteria should be used.

Level 1 : Basic

Knowledge of basic information
Simple understanding
Little organisation; few links; little or no detail; uses a limited range of specialist terms
Reasonable accuracy in the use of spelling, punctuation and grammar
Text is legible.

Level 2 : Clear

Knowledge of accurate information
Clear understanding
Organised answers, with some linkages, occasional detail/exemplar; has a good range of specialist terms where appropriate
Considerable accuracy in spelling, punctuation and grammar.
Text is legible.

N.B. Only Level 1 and 2 descriptors will appear on Foundation marking schemes (front covers)

Annotation of Scripts

- One tick equals one mark, except where answers are levels marked (where no ticks should be used). Each tick should be positioned in the part of the answer which is thought to be credit-worthy.
- Where an answer is levels marked the examiner should provide evidence of the level achieved by means of annotating 'L1' or 'L2' in the left-hand margin.

- The consequent mark within this level should appear in the right-hand margin.
- Ticks must **not** be used where an answer is levels marked.
- Examiners should add their own brief justification for the mark awarded, eg *Just L2, reasonably accurate knowledge or some clear understanding*.
- Where an answer fails to achieve Level 1, zero marks should be given.

General Advice

Marks for each sub-section should be added in the right-hand margin next to the maximum mark available which is shown in brackets. All marks should then be totalled in the ‘egg’ at the end of each question in the right-hand margin. The totals should then be transferred to the boxes on the front cover of the question paper. These should be totalled. The grand total should be added to the top right-hand corner of the front cover. No half marks should be used.

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.

Diagrams are legitimate responses to many questions and should be credited as appropriate. However contents which duplicate written material or vice versa should not be credited.

Quality of Written Communication (QWC) is part of the award of marks in levels marked answers only. In levels marked answers the quality of the geography is assessed and a level and mark awarded according to the geography. As is sometimes the case, the geography may be sound at a particular level but the examiner may not be sure as to whether there is quite enough to raise the mark within that level. In this case the examiner should consider the QWC of the answer. QWC that fulfils the criteria for the level should lead to the rise in the mark but where the QWC does not fulfil the criteria, the answer should remain at the mark first thought appropriate. In cases where QWC has been used in the award of marks, the examiner should indicate this with QWC and arrows that indicate either an upward or downward trend according to its impact on the final award of the mark.

Question 1**Marks**

(a) 7097 (1 mark)

(b)

GRID SQUARE	DESCRIPTION
7391	A flat coastal area covered by houses and a chemical works
7603	A steep sided hill reaching 418 metres, much of which is covered by coniferous forest.
7892	A built up area on the side of a steep sided river valley.
7095	An area of oil storage tanks on a gently sloping area next to an area of marsh.

(3 marks)

(c) (i) Primary route. / dual carriageway (1 mark)

(ii) Follows river valley / avoids high land / follows flat land. 2 x 1. (2 marks)

Total Marks for Question 1 = 7**Question 2**

(a) Housing (residential) / industrial / communication / leisure, recreation. No credit for farming or retailing. 2 x 1. (2 marks)

(b) Housing – cheap land, more pleasant environment, more space, more car ownership.
Industrial – more space, cheaper land, dependent on road transport – close to major road junction.
Cramped and congested on older industrial sites in inner city. Max 1 if no land use indicated but the reasons given are relevant to the rural urban fringe. If land use becomes obvious in answer, then max 2 can be achieved. (2 marks)

(c) Suburbanisation (1 mark)

(d) Loss of farmland / loss of habitats / urban sprawl / traffic pollution. 2 x 1. No credit for unqualified pollution. (2 marks)

Total Marks for Question 2 = 7

Question 3

- (a) (2 of) Turbines take up less than 1% of the land.
Produces 80% of Ulverston’s electricity needs.
Prevents 12 000 tonnes of carbon dioxide entering the atmosphere per year. 200 tonnes less acid rain produced. (2 marks)
- (b) (1 of) Built in an SSSI. Visual impact.
Very large (detail of size, direct lift). Accept reference to visual or noise pollution. (1 mark)
- (c) **Level 1 Basic 1-2 marks**
Simple statements without any evidence of the use of Figure 4 or entirely based on Figure 4.
High land. High wind speeds. Coastal.
- Level 2 Clear 3-4 marks**
Evidence of the use of the map and their own knowledge.
Found on the western edge of Great Britain on the highlands such as Wales, Lake District and the Pennines. Prevailing winds over Britain are from the west. Much of these areas are moorland where the traditional farming is hill sheep. This can continue where there are wind farms as the sheep can continue to graze the area. May provide an additional income for the sheep farmer. (4 marks)

Total marks for Question 3 = 7**Question 4**

- (a) The waterfall is formed where a resistant rock called **Whin sill** lies on top of softer **sandstone** and limestone. The river erodes the softer rock creating an **overhang**. Eventually the resistant rock above collapses and the waterfall **retreats/moves backwards**, forming a **gorge**. (5 marks)
- (b) Abrasion – the load that is being transported by the river (1) rubs against the river bed and banks and wears them away (1).
Hydraulic erosion – pressure of water is forced into cracks in the river bed and banks (1) making the cracks wider and so breaking up the rock / sheer force of the water takes the material away (1).
Solution – acids in the water (1) dissolve rocks such as limestone (1).
Attrition – erosion of the river’s load itself (1) as the sand and pebbles rub against each other. If process not named, no credit (1). (2 marks)

Total Marks for Question 4 = 7

Question 5

- (a) Two accurate plots, width not important. (2 marks)
- (b) (3 x 1) or (2 + 1) Make larger fields. Remove unproductive land. Make greater use of machinery. Gain subsidies from the EU. Make bigger profits. Reduce the number of pests whose habitat is the hedgerows. Minimum of two reasons. Reduce maintenance. Grow more crops, increase yields. Max 1 for non-agricultural reason, e.g. building of houses. (3 marks)
- (c) 2 x 1 Must be more than a list – developed point related to the environment. Must be two difference effects on the environment. The same modern farming practice can have two different effects on the environment.
The increased use of artificial fertiliser can lead to nitrates getting into streams (eutrophication). The removal of hedgerow leads to increased danger of soil erosion. The removal of hedgerow means the destruction of the habitat of certain species. No credit for air pollution from machinery. (2 marks)

Total marks for Question 5 = 7

Question 6

- (a) (i) Steep slopes. Thin rocky soils. 2 x 1. (2 marks)
- (ii) Rough grazing land. (1 mark)
- (iii) Needs to be specific with examples taken from the stimulus material. Reference to non-agricultural pursuits, maximum of 1 for pony trekking/outdoor pursuits. Forestry introduced. Marshland drained. Less rough grazing. No farm labourers' cottages. Cow shed replaced by machinery store. Holiday cottages. Camp site. Fewer workers. Max 1 for a land use change. Max 1 for an animal change. 2 x 1. (2 marks)
- (b) Reserve 1 mark for it has declined (1). Reserve 2nd mark for some specific description of the decline i.e. levelled out between October 1997 and July 1998. Slight rise in October 1998. Less marked fall in October 1999. This must refer to dates and / or price. (2 marks)

- (c) This question can be answered by reference to the disadvantages of the hill sheep farm or the advantages of the East Anglian arable or a combination of both.

Level 1 Basic 1-2 marks

Simple statements about deep soil, less extreme climate, low rainfall, flat, high sunshine totals. No need for comparability.

Level 2 Clear 3-4 marks

Detailed factual information that would be expected in a Level 3 answer is not required. East Anglia is a flat area so machinery can be used. The soil is boulder clay which is fertile enough for growing wheat. There is plenty of sunshine to ripen the wheat and so yields are high. Credit reference to CAP policies and any human factors as long as they are related to the profitability of the farm.

(4 marks)

- (d) (i)

	GLACIAL FEATURE	EXAMPLE
A	Ribbon lake	Haweswater
B	Lake in corrie	Blea Water
C	Glacial trough	
D	Arête	Riggindale Crag

(5 marks)

- (ii)

Level 1 Basic 1-2 marks

Basic statements – the ice eroded a depression in the side of the mountain – likely to be incomplete and lacking in sequence.

Level 2 Clear 3-4 marks

Candidate has a clearer idea of the sequence of events and the reference to processes such as abrasion, plucking is only by name. The snow accumulates in a depression. Under pressure turns to ice and under gravity moves out of the depression and down the mountain-side. The movement of the ice turns the depression into a corrie by the process of abrasion.

(4 marks)

Total Marks for Question 6 = 20

Question 7

(a) (i)

Inputs	Processes	Outputs
salt limestone	Cooling	Chemicals
Energy: electricity	Burning	Plastics
Human: money labour	Washing	Waste
		Industrial gases
Raw Materials	Refining	Products

(2 marks)

(ii) Materials extracted from the ground or similar. (1 mark)

(iii) To transform the raw materials into finished products (1) the activities that take place inside the factory / or an example, e.g. melting (1). (2 marks)

(iv) Problem of pollution associated with the waste and industrial gases. Accept reference to cost. (1 mark)

(v) Large quantities of bulky, heavy, raw materials are used as an input (1). Large quantities of bulky waste materials are produced as an output uses large amount of energy, producing pollution if qualified (1). (2 marks)

(b) Clockwise from top:
D/A E B A/D C (4 marks)

(c) (i) No specific locational requirements (1). Can site anywhere (1). (2 marks)

(ii) **Level 1 Basic 1-2 marks**
Simple statements about location of high-tech industry not particularly related to M4.
High-tech is located here because of good transport and near to universities.

Level 2 Clear 3-4 marks
High-tech industry is located here because it depends on road transport on M4 and the universities of Reading and Oxford. (4 marks)

(d) (2x1) Giving an area assisted area status. Grants and subsidies. Enterprise zones. Tax free periods. Retraining grants. Improving the transport and infrastructure. Moving Government departments into depressed areas. Planning controls and restrictions. (2 marks)

Total marks for Question 7 = 20

