

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**International General Certificate of Secondary Education**

**MARK SCHEME for the June 2005 question paper**

**0460 GEOGRAPHY**

**0460/01**

**Paper 1, maximum mark 75**

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the June 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

**Grade thresholds** for Syllabus 0460 (Geography) in the June 2005 examination.

	maximum mark available	minimum mark required for grade:			
		A	C	E	F
Component 1	75	50	29	21	17

The threshold (minimum mark) for B is set halfway between those for Grades A and C.  
The threshold (minimum mark) for D is set halfway between those for Grades C and E.  
The threshold (minimum mark) for G is set as many marks below the F threshold as the E threshold is above it.

Grade A\* does not exist at the level of an individual component.

June 2005

IGCSE

MARK SCHEME

MAXIMUM MARK: 75

SYLLABUS/COMPONENT: 0460/01

GEOGRAPHY

Paper 1

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**The features of the marking scheme**

Each question carries 25 marks. Candidates cannot earn above the maximum marks available with each sub section.

The marking scheme attempts to give guidance about the requirements of each answer and lists a number of responses which will earn marks along with the general principles to be applied when marking each question.

It should be noted that candidates can earn marks if their answers are phrased differently provided they convey the same meaning as those in the mark scheme. **THE CANDIDATES DO NOT NEED TO USE THE SAME WORDING TO EARN MARKS.**

The notation 'etc.' at the end of an answer in the mark scheme signifies that there may well be other correct responses or examples that can be given credit. Providing the statement is true, relevant to the question asked and not repetition of a previous point made credit should be given.

A point made within one sub-section which is an answer to the question set in a different sub-section should not be given credit as each sub-section asks different questions which require independent answers.

The mark scheme uses semi colons (;) to separate marks and diagonals (/) to separate alternative answers.

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1 (a) (i) Mountainous/highland/high plateau/desert.

1 mark

(ii) One mark available (though not reserved) for stating type of environment e.g. Area Y is a desert region/very dry, Area Z is a polar/Arctic area/very cold area.

Otherwise credit ideas such as:

There are inadequate water supplies/food cannot be grown;

Many parts are isolated/lack of transport or communications;

There are few economic resources;

There is little employment;

Infertile soils; etc.

2 @ 1 mark

(2)

(iii) Candidates can make general comments or specify areas with a high population density such as:

The areas are unevenly distributed;

They are mainly temperate latitudes;

They are mainly in the northern hemisphere; coastal areas; large river valleys;

Many are in Western Europe/south east Asia/NE North America; etc.

[N.B. Allow MAXIMUM 2 for any combination of naming (parts of) continents and for a list of at least two countries (1 mark MAXIMUM)]

3 @ 1 mark

(3)

(b) (i) One mark each for correct reference to each migration type:  
International migration increases initially and then declines;  
Rural to urban migration increases initially and then declines;

Further mark for development of one statement e.g:

International migration remains higher than it was initially;

Rural to urban migration returns to same level as it started; etc.

3 @ 1 mark

(3)

(ii) Candidates should suggest reasons for the changes in the amount of their chosen type of migration rather than simply describe the changing amounts.

e.g. Rural to urban migration:

Is small amount initially as there is little variation in opportunity throughout country;

And the transport infrastructure is poorly developed;

Increases as industry/commerce develops in towns;

As people seek to benefit themselves;

Amounts decline as rural areas develop;

Or overcrowding in urban areas put off potential migrants;

Some people looking for attributes of rural lifestyle in developed countries;

Predominance of counter urbanisation; etc.

4 @ 1 mark or development

(4)

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- (iii) Candidates should describe both the positive and negative impacts of migration on the destination.

Credit up to 3 MAXIMUM for positive/negative impacts.

Expect positive impacts relating to issues such as:  
 Augmentation of skilled labour supply e.g. foreign doctors;  
 May provide pool of cheap/unskilled labour;  
 Multi-cultural society/cultural understanding;  
 Provision of specialist amenities e.g. restaurants/takeaways; etc.

Expect negative impacts relating to issues such as:  
 Racial conflict;  
 Pressure on employment;  
 Pressure on housing/development of shanty towns;  
 Pressure on amenities/infrastructure;  
 Financial pressures on government/social welfare system; etc.

5 @ 1 mark or development (5)

- (c) Be prepared to accept an example of any type of migration at any scale. Candidates can explain the reasons for migration by using any combination of pull and push factors but avoid double credit for opposite statements. Candidates need to refer to an example they have studied, for which **one mark is reserved** (both the origin and destination of the migrants should be identified).

Depending on the example chosen expect to see discussion of issues such as:  
 Better standard of living/quality of life/living standards;  
 Availability of work;  
 Availability of food supplies;  
 Education;  
 Health care;  
 Natural events;  
 Bright lights syndrome;  
 Political/religious persecution;  
 Wars and conflicts; etc.

7 @ 1 mark or development (7)

**TOTAL 25 marks**

- 2 (a) (i) Central Business District/CBD

1 mark (1)

- (ii) Ideas such as:  
 High demand for land;  
 High cost of land;  
 Limited space/saves space;  
 Build upward rather than outward; etc.

2 @ 1 mark (2)

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- (iii) Candidates should identify differences. Two discrete accounts should be linked together. Ideas such as:  
 Smaller proportion used for residential purposes in inner city;  
 Greater proportion used for industry/warehouses in inner city;  
 Similar amount of land used for convenience shops in both areas;  
 No land used for comparison shops in both areas;  
 Greater proportion used for public buildings in inner city; etc.

3 @ 1 mark (3)

- (iv) Candidates should suggest reasons for the variations in the chosen land use.  
 e.g. Industry:  
 Traditional industrial zone located in inner city;  
 Associated with growth of city;  
 Location close to railways/main routes;  
 Outer suburban growth largely housing estates;  
 Industrial location unlikely to be granted planning approval;  
 Likely to cause conflicts/or examples;  
 Areas are less well linked to major communications; etc.

4 @ 1 mark or development (4)

- (b) (i) Ideas such as:  
 Model shows higher overall quality of life in developed world city;  
 In developed world city quality of life improves with distance from centre;  
 Improvement is gradual/steady (dev);  
 In developing world, city quality of life generally declines with distance from centre;  
 After initial improvement (dev); etc.

3 @ 1 mark or development (3)

- (ii) Expect candidates to answer question by referring to variations in quality of life in both developed world and developing world cities, however, no reserve on either. Be prepared to accept a wide variety of ideas such as:  
 It is true that in general there is higher overall quality of life in developed world city; however, in some parts of developing world, cities quality of life can be just as high as in developed world (dev);  
 In developed world, city quality of life generally does improve with distance from centre; however there are some poor quality outer suburban estates (dev); and some high quality/gentrified parts of inner cities (dev);  
 In developing world, city quality of life generally does decline with distance from centre; as shanty towns/squatter settlements are found in outskirts (dev); etc.

5 @ 1 mark or development (5)

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- (c) Be prepared to accept any change in land use in any part of an urban area, and at least one rural area. Candidates should describe both the advantages and disadvantages of the selected change in land use. Credit up to 5 MAXIMUM for advantages/disadvantages. Candidates need to refer to an example they have studied, for which **one mark is reserved** (both the urban area and rural area must be named and the change in land use clearly identified).

Expect advantages relating to issues such as:

Service provision;  
 Infrastructural development;  
 Increase of housing stock;  
 Improvement of communications;  
 Employment provision; etc.

Expect disadvantages relating to issues such as:

Land use conflict;  
 Relative cost;  
 Environmental damage;  
 Impact on communities/cultures; etc.

7 @ 1 mark or development (7)

**TOTAL 25 marks**

- 3 (a) (i) Upland/mountainous/hilly/cold/snowy/icy etc.

1 mark (1)

- (ii) Ideas which explain why glaciers are likely to form such as:

Lots of snow falls;  
 Cold temperatures/snow does not melt/accumulates;  
 Sheltered hollows for accumulation/valleys for glaciers to gather; etc.

2 @ 1 mark (2)

- (iii) Features should ideally be evident from photographic evidence though some observations may be 'by implication'. Ideas such as:

Composed of ice/compressed snow/white in parts;  
 Contains moraine/rock materials/appears 'dirty' in parts;  
 Medial moraine;  
 Lateral moraine;  
 Occupies entire valley/many metres deep;  
 Follows line of former valley/winding;  
 Crevasses (right foreground);  
 Slowly moving; etc.

3 @ 1 mark (3)



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- (iv) Candidates should describe how the glacier will shape the land rather than simply naming processes. Credit development for reference to how these processes shape the landscape. Ideas such as:
- Plucking breaks off pieces of rock; shaping downslope side of *roche moutonnee* (dev);
  - Abrasion scrapes at the surrounding rock; leaving 'striations' on rocks; deepening/widening the valley (dev);
  - Transportation carries the rock material/moraine away;
  - Deposition of materials when ice melts at snout of glacier; forms terminal moraine (dev);
  - Meltwater creates fluvio-glacial features; etc.

(NB 1 mark MAXIMUM for simply naming at least 2 of plucking/abrasion/freeze thaw)

4 @ 1 mark or development (4)

- (b) (i) X = Corrie/cwm/cirque/tarn  
Y = Hanging Valley  
Z = Ribbon/finger Lake

3 @ 1 mark (3)

- (ii) Candidates should explain how the chosen landform has been formed rather than simply describing its features. Credit written answers or information included as part of labelled diagrams (do not double credit here).

e.g. Landform X (corrie):  
Snow gathers in hollow on mountain side;  
Build up above snow line;  
Compression creates firn/ice;  
Ice moves out of hollow;  
Crevasse/bergschrand created;  
Freeze/thaw steepens back wall;  
Plucking/abrasion deepens hollow  
Deposited material forms corrie lip;  
Melting of water creates tarn; etc.

e.g. Landform Y (hanging valley):  
Snow gathers in mountains;  
Build up above snow line;  
Glacier forms in pre-glacial river valleys;  
Widens and deepens valley;  
Greater erosion of main valley than tributary valleys;  
Ice melts eventually;  
Former tributary valley now much higher than main valley;  
River falls vertically/waterfall created; etc.

e.g. Landform Z (ribbon lake):  
Snow gathers in mountains;  
Build up above snow line;  
Glacier forms in pre-glacial river valleys;  
Deepens valley;  
Over deepens where rock is less resistant/tributary glacier joins;  
Ice melts eventually;  
Hollows filled up with water/valley dammed by terminal moraine; etc.

5 @ 1 mark or development (5)

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- (c) Candidates should describe both the advantages and disadvantages for people of living in a glaciated upland area. Credit up to 5 MAXIMUM for advantages/disadvantages. Candidates could refer to examples they have studied, if so these can be credited as development marks (MAXIMUM 2) if linked with appropriate points [e.g. people can make a living from tourism; as they do in Snowdonia (dev)] but do not credit examples in isolation.

Expect advantages relating to issues such as:

Tourism/income;

HEP generation;

Quarrying;

Water supply;

Flat valley floors are good for agriculture/transport routes;

Peace/tranquillity/scenic beauty/fresh air; etc.

Expect disadvantages relating to issues such as:

Weather/climate;

Communications;

Infertile soils;

Lack of industrial/commercial employment;

Difficulty of construction;

Avalanche/landslide; etc.

7 @ 1 mark or development (7)

**TOTAL 25 marks**

**4 (a) (i) Desert**

1 mark (1)

- (ii) Ideas which explain why vegetation is unlikely to grow in the area shown such as:

Low precipitation/aridity;

Unreliable rainfall;

High rates of evaporation;

Little cover of soil/sand/bare rock surfaces/infertile soils; etc.

2 @ 1 mark (2)

- (iii) Features should ideally be evident from photographic evidence though some observations may be 'by implication'. Ideas such as:

Composed of sand;

Contains some stones/broken rocks;

Large area of flat land in foreground;

Dunes in middle distance;

Scattered vegetation/scrub; etc.

3 @ 1 mark (3)

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- (iv) Candidates should describe how natural processes will shape the land in deserts rather than simply naming processes. Credit reference to any desert processes/features, not just those shown in the photograph, allowing development marks where appropriate.

Expect ideas such as:

Sandblasting forms mushroom rocks;  
 Deflation hollows caused by wind blowing away dry, loosened sand;  
 Erg/barchans/seif dunes formed by deposition of sand;  
 Reg/stony desert formed when stones left after sand has been removed;  
 Evidence/impacts of exfoliation;  
 Wadi formed by intermittent streams.

4 @ 1 mark or development (4)

- (b) (i) Candidates should identify differences here although two discrete accounts should be linked together. Ideas such as:

Abidjan has more precipitation than Ouagadougou;  
 Maximum of precipitation is May/June in Abidjan, July/Aug in Ouagadougou;  
 Greater temperature range in Ouagadougou;  
 Higher maximum temperature in Ouagadougou; etc.

(N.B. Allow MAXIMUM of 2 marks on temperature/precipitation)

3 @ 1 mark or development (3)

- (ii) Candidates should explain why deserts are hot and dry rather than simply describing their climatic features. Credit written answers or information included as part of labelled diagrams or sketch maps (do not double credit here).

Expect reference to ideas such as:

Distance from oceans;  
 Absence of moderating influence of water body  
 Wind direction/trade winds;  
 Blow over large areas of land hence no source of moisture;  
 Lack of evaporation;  
 Absence of cloud cover, therefore, hotter;  
 Influence of overhead sun;  
 High pressure; etc.

N.B. MAXIMUM of 4 marks on each of hot/dry

5 @ 1 mark or development (5)

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- (c) Candidates should describe the hazards experienced by people living in areas at risk of drought/desertification. Candidates could refer to examples they have studied, if so they can be credited as development marks (MAXIMUM 2) if linked with appropriate points [e.g. yields of crops will be reduced by lack of water; as they have done in Burkino Faso (dev)] but do not credit examples in isolation.

Expect hazards relating to issues such as:

- Impact on crop yields;
- Lack of food/starvation;
- Farmers unable to leave land fallow;
- Therefore soils exhausted;
- And overgrazing of livestock takes place;
- Increased likelihood of soil erosion by wind;
- Loss of vegetation leads to more rapid run off;
- Therefore less moisture trapped in soil;
- And greater potential for flash floods; etc.

7 @ 1 mark or development (7)

**TOTAL 25 marks**

- 5 (a) (i) Nomadic herding/ranching/shifting cultivation

1 mark (1)

- (ii) A Producing crops/animal products for self/family/tribe

- B Producing crops/animal products for sale

2 @ 1 mark (2)

- (iii) A Market gardening

- B Plantations

- C Shifting cultivation

3 @ 1 mark (3)

- (iv) Candidates should identify differences here although two discrete accounts should be linked together.

Ideas such as:

- Intensive farming has higher yield per hectare;
- Intensive farming gains more profit per hectare;
- Intensive farming has larger number of workers per hectare;
- Intensive farms are smaller size;
- Intensive farms have more capital input or examples; etc.

4 @ 1 mark or development (4)

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- (b) (i) Vegetables and millet/food crops are grown very close to the village/within 250 m of village;  
Groundnuts/cash crops grown largely within 1 000 m of village;  
Fallow land in similar areas to groundnuts;  
Most land more than 1 000 m away is savanna/grass/trees/grazing land.

3 @ 1 mark or development (3)

- (ii) Candidates should give an explanation for the land use pattern rather than simply describing it.

Expect developed reference to factors such as:

Soil fertility;

Availability of water;

Labour requirements of crops (e.g. vegetables and millet need frequent attention);

Need to protect food crops/cash crops from thieves/animals;

Need for daily collection of produce by villagers/freshness; etc.

No MAXIMUM on any one factor, providing adequate development of points.

5 @ 1 mark or development (5)

- (c) Candidates should explain why there are food shortages in some parts of the world. Candidates could refer to examples they have studied, if so these can be credited as development marks (MAXIMUM 2) if linked with appropriate points [e.g. harvests of crops are sometimes destroyed by civil war; as was the case in Angola (dev) or drought as was the case in Burkino Faso (dev)] but do not credit examples in isolation.

Expect answers relating to issues such as:

Drought/low rainfall/unreliable rainfall;

Flooding;

Hurricanes/cyclones/typhoons;

Poor farming practices;

Overcultivation/overgrazing;

Exhaustion of soils/infertility of soils;

Increased likelihood of soil erosion by wind;

Wars/conflicts;

Lack of investment in irrigation/fertilisers; etc;

Lack of agricultural technology;

Poor storage of crops;

Pests/disease;

Rapid population growth;

Poor food distribution;

Corruption; etc.

7 @ 1 mark or development (7)

**TOTAL 25 marks**

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6 (a) (i) Use of water in the home/use for washing etc.

1 mark

(ii) A = Finland

B = India

2 @ 1 mark

(2)

(iii) Candidates should identify differences here though we should link together two discrete accounts.

Ideas such as:

Greater proportion used for agriculture/irrigation in developing countries;

Greater proportion used for industry in developed countries;

Greater proportion used for electricity generation in developed countries; etc.

3 @ 1 mark

(3)

(iv) Candidates should suggest reasons for the variations in water use suggested in (iii) above.

Expect ideas such as:

Greater proportion used for agriculture/irrigation in developing countries because people are more dependent on the land;

Greater proportion used for industry in developed countries as there are more factories in developed countries;

Greater proportion used for electricity generation in developed countries as it is used for cooling in thermal power stations;

Greater proportion used for electricity generation in developed countries as richer countries use more electricity; etc.

4 @ 1 mark or development

(4)

(b) (i) Candidates can make general comments or specify areas with a water shortage such as:  
The areas are unevenly distributed;  
Many are in Africa/southern Asia/Australia/western North America; etc.

[N.B. Allow MAXIMUM of 2 marks for any combination of named (parts of) continents and a list of at least two countries (Maximum 1)]

3 @ 1 mark

(3)

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- (ii) Answer does not need to be comparative as comments about areas with a shortage and surplus of water imply a direct comparison.

Expect reference to ideas such as:

Amount of precipitation;

Evaporation levels/temperatures;

Land use/importance of agriculture;

Level of economic development/development of infrastructure;

Population density;

Presence/absence of water bearing rocks/aquifer;

Proximity to rivers; etc.

5 @ 1 mark or development

(5)

- (c) Candidates should describe both the advantages and disadvantages of the chosen method of obtaining a regular supply of water. Credit up to 5 MAXIMUM for advantages/disadvantages. Candidates could refer to examples they have studied, if so these can be credited as development marks (MAXIMUM 2) if linked with appropriate points [e.g. large amounts of fertile farmland are lost when dams are built; as has resulted from the Three Gorges Dam Project (dev)] but do not credit examples in isolation.

Expect advantages relating to issues such as:

Reliability;

Amount of supply;

Use as part of multi purpose scheme;

Relative cost;

Sustainability; etc.

Expect disadvantages relating to issues such as:

Land use conflict;

Relative cost;

Environmental damage;

Impact on communities/cultures; etc.

7 @ 1 mark or development

(7)

**TOTAL 25 marks**