

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

**MARK SCHEME for the October/November 2010 question paper
for the guidance of teachers**

0460 GEOGRAPHY

0460/12

Paper 1, maximum raw mark 75

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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1 (a) (i) UK

1 mark [1]

(ii) A. More people generally are employed in factories in the UK than farms/there are more jobs in factories than on farms/farm work is more likely to be seasonal.

B. Cleaners do not need to be highly skilled/qualified/many migrants lack qualifications to be teachers/language difficulties would make it more difficult to be teachers/not prevent them being employed as cleaners

2 @ 1 mark [2]

(iii) Ideas such as:
 more emigration than immigration;
 approx 2 times as many emigrants;
 except 2004 where numbers equal;
 gradual increase in immigration/decrease in emigration up to 2004 followed by increase;
 emigration fluctuates more than immigration etc

3 @ 1 mark [3]

(iv) Ideas such as:
 lack of qualifications/skills/education/no experience;
 many cannot speak the language;
 many are doing low paid jobs;
 some are unable to obtain employment/not enough jobs;
 thus are unable to buy homes/live in poor conditions/overcrowding;
 some may have to live away from their families/be homesick;
 discrimination/racial tension may occur;
 some may have entered illegally;
 thus poor access to services/or examples
 exploitation by employers/long working hours/poor working conditions;
 different culture/cultural shock etc

4 @ 1 mark [4]

(b) (i) Ideas such as:
 for work opportunities/high unemployment in Poland;
 to improve quality of life/standard of living;
 higher rates of pay;
 Poland joined EU/Polish workers had employment rights in UK;
 good transport links between Poland and UK etc;

3 @ 1 mark [3]

(ii) Problems such as:
 Loss of (skilled/qualified) workers/not enough workers;
 Therefore loss to Polish economy;
 Difficulties for people in Poland of finding tradesmen;
 Families split by migration/wife family remains behind;
 Causes social problems;
 Increasing divorce rates etc

5 @ 1 mark or development [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail describing effects of international migration on destination. (e.g. provides more workers, provision of specialist amenities, conflict, pressure on employment, pressure on housing/amenities etc)

Level 2 (4–6 marks)

Uses named example

More developed statements describing effects of international migration on destination.

(e.g. 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, racial conflict, pressure on employment as there are extra people looking for jobs, pressure on housing as more people need to be housed; pressure on specified amenities/infrastructure etc)

(NB MAX 5 marks if no named example)

Level 3 (7 marks)

Uses named example (e.g. USA)

Comprehensive and accurate statements including some place specific reference.

(e.g. Augmentation of skilled labour supply/e.g. foreign doctors from Europe, provides pool of cheap/unskilled labour on fruit/vegetable farms in Central Valley, multi-cultural society/cultural understanding, provision of specialist amenities e.g. Mexican restaurants, racial conflict between Mexican immigrants and other citizens, pressure on employment in cities sch. as Los Angeles as there are extra people looking for jobs, pressure on housing as more people need to be housed; pressure on specified amenities/infrastructure etc) [7]

[Total: 25]

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- 2 (a) (i)** Few large settlements but many small ones;
the larger the settlements the fewer there are;
there are more small settlements etc.
- 1 mark [1]
- (ii)** Features such as:
widely spaced/large distance between them;
surrounded by farmland/woodland;
population density is low/small population;
individual buildings/farms/isolated/remote/separate from each other;
scattered/unevenly spread;
lack of service provision. etc
- 2 @ 1 mark [2]
- (iii)** Ideas such as:
more services in a city;
higher order services/more specialist in city;
services with larger sphere of influence in a city/people travel further for services in a city;
services with bigger threshold population in a city;
many services in city used less frequently;
Accept any relevant different pairs of comparative e.gs to MAX 2 etc
- 3 @ 1 mark [3]
- (iv)** Ideas such as:
There are many different types of services/variety of services;
including high order services;
any valid e.g. to MAX 1;
seat of government/administration;
tourist attractions/landmarks;
good access/route centre etc
- 4 @ 1 mark [4]
- (b) (i)** Distance and/or direction from any named feature e.g.:
western side of Via Expresa;
north of Colegio Alfonso Ugarte
1 km; west of Parque Enramada;
- 1 mark MAX for near/next to e.g. Via Expresa/Begonias/ Colegio Alfonso Ugarte etc
- 3 @ 1 mark [3]
- (ii)** Ideas such as:
Low land costs;
More space to built large mall ; and for parking (dev);
Away from congestion in CBD ; makes deliveries/access for customers easier (dev);
easy access from motorway (dev);
Away from noise/atmospheric pollution ; more pleasant shopping environment (dev);
large market/lots of customers etc
- 5 @ 1 mark or development [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail on problems caused by development on rural-urban fringe.

(e.g. traffic congestion, loss of farmland, atmospheric pollution)

Level 2 (4–6 marks)

Uses named example

More developed statements on problems caused by development on rural-urban fringe.

(e.g. traffic congestion as many people who live in new developments commute to work in CBD, loss of farmland due to new housing developments/road construction, atmospheric pollution from increased traffic etc)

(NB MAX 5 if no named example)

Level 3 (7 marks)

Uses named example (e.g. Nottingham).

More developed statements on problems caused by development on rural-urban fringe, including some place specific reference.

(e.g. traffic congestion on radial roads into city as many people who live in villages like Burton Joyce commute to work in the city, loss of farmland around Papplewick village due to new housing developments, atmospheric pollution from increased traffic along A60 etc) [7]

[Total: 25]

3 (a) (i) Piece of land sticking out into the sea/land between two bays

1 mark [1]

(ii) A = Cave

B = (Natural) arch

2 @ 1 mark [2]

(iii) Hydraulic action;
Corrosion/solution;
Corrasion/abrasion;
attrition

3 @ 1 mark [3]

(iv) Ideas such as:

There are hard/soft rocks outcropping/rocks of different resistance;
so differential erosion occurs;

Soft/weak rocks worn more rapidly;

Bays formed in soft rocks;

hard rocks more resistant to erosion;

Headlands form from hard rocks etc

4 @ 1 mark [4]

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- (b) (i) Ideas such as:
 sand dunes closer to sea(Cardigan Bay)/salt marsh further inland/sand dunes nearer mouth of river;
 sand dunes on sand spit salt marsh behind it;
 sand dunes on land salt marsh in water/estuary;
 sand dunes west of salt marsh etc

3 @ 1 mark [3]

- (ii) Ideas such as:
 shallow water; in estuary (dev);
 sheltered water; behind sand spit (dev);
 where deposition will occur; because of slow moving water (dev);
 mixture of salt/fresh water;
 encourages flocculation/sediment to sink to bottom;
 tidal area; encourages growth of salt resistant vegetation etc

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail explaining how/why a delta is formed.

(e.g. Deposition of sediment, speed of flow slows down, river cannot carry load, growth of vegetation, river splits into channels etc)

Level 2 (4–6 marks)

Uses named example

More developed statements on how/why a delta is formed.

(e.g. Deposition of sediment/alluvium by river, as speed of flow slows down/cannot carry load, especially if river is heavily laden with silt, absence of major tidal flows/currents, impact of salt water causes further deposition, growth of vegetation raises it above sea level, distributaries form etc)

(NB MAX 5 marks if no named e.g.)

Level 3 (7 marks)

Uses named example (e.g. Mississippi delta).

Comprehensive and accurate statements explaining how and why a delta is formed, including a labelled diagram.

(e.g. Deposition of sediment/alluvium by river, as speed of flow reduced when it reaches Gulf of Mexico so it slows down/cannot carry load, especially as river is heavily laden with silt due to it eroding its banks in states such as Missouri, absence of major tidal flows/currents in Gulf of Mexico, impact of salt water causes further deposition, growth of vegetation raises it above sea level, distributaries form as the channel splits south of New Orleans etc) [7]

[Total: 25]

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- 4 (a) (i)** October
- 1 mark [1]
- (ii)** Range of temperature = 21°C/12–33°C
Annual average precipitation = 95–105mm
- 2 @ 1 mark [2]
- (iii)** Ideas such as:
absence of cloud cover;
overhead/high angle of sun;
in northern hemisphere etc
- 3 @ 1 mark [3]
- (iv)** Ideas such as:
Long way from oceans;
Not close to sea/large lake;
trade winds;
Blow over large areas of land hence no source of moisture;
Rain shadow;
High pressure/descending air;
Cold currents etc
- 4 @ 1 mark [4]
- (b) (i)** Differences such as:
A is tree/shrub/B is cactus;
A has leaves/B spines;
A has trunk/stem/ B has fleshy stem;
A has higher/larger plants than B;
Higher density of vegetation in A, etc
- 3 @ 1 mark [3]
- (ii)** Ideas such as:
Seeds/plants remain dormant during long dry spells;
narrow/spiky leaves; to reduce rates of evapotranspiration (dev) to protect plant from animals (dev);
long/tap roots;
wide spreading roots; to reach underground water (dev);
Some plants/cacti store water; in order to survive long periods of drought (dev);
waxy/tough outer layer etc
- 5 @ 1 mark or development [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail explaining how or why the area is at risk from human activities.

(e.g. the area is used for farming, resources/oil is mined/drilled in the area, animals are killed, tourists destroy dunes, overgrazing etc)

Level 2 (4–6 marks)

Uses named example

More developed statements explaining how or why the area is at risk from human activities.

(e.g. large herds of animals are grazed in the area which destroys vegetation, resources/oil is mined/drilled in the area and wildlife is killed as habitat is destroyed, the use of quad bikes/trampling on the dunes wears them away etc)

(NB MAX 5 if no named example)

Level 3 (7 marks)

Uses named example (e.g. Arabian Desert).

Comprehensive and accurate statements explaining how and why the area is at risk from human activities, including some place specific reference.

[NB For place specific reference candidates could name specific parts of the desert or countries affected.] [7]

[Total: 25]

5 (a) (i) 14

1 mark [1]

- (ii) It is more important in France/less important in Germany/roughly three times as important in France;
7–8% France but 2–3% Germany (figures for both countries needed)

2 @ 1 mark [2]

- (iii) Ideas such as:

Level of development/technology available;

Availability of finance;

Government policy;

Attitude towards the environment;

Availability of alternatives/reserves of fossil fuels/coal/oil/ natural gas etc.

3 @ 1 mark [3]

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- (iv) Advantages such as:
 low production costs;
 renewable/sustainable/uranium will not run out;
 does not produce greenhouse gases/pollute atmosphere;
 only uses small amounts of uranium/fuel;
 uranium has no other uses (apart from nuclear weapons);
 produces only a small amount of waste;
 large amount of energy per unit of input etc

Disadvantages such as:
 Expensive to build/maintain power stations;
 High cost of decommissioning;
 Danger of radioactivity;
 Difficulty of disposal of waste;
 General public perceive it as dangerous/opposition from pressure groups etc

MAXIMUM 2 MARKS ON ADVANTAGES/DISADVANTAGES

4 @ 1 mark [4]

- (b) (i) Ideas such as:
 Southern part of Hungary;
 North of/near/next to/close to border with Croatia/Serbia;
 60–80km from border with Croatia;
 south/south south west of Budapest/capital city;
 About 190-230km from Budapest/capital city;
 Any correct reference to Slovenia/Austria/Slovakia/Romania = MAX 1

3 @ 1 mark [3]

- (ii) Ideas such as:
 Availability of water/close to river/lake;
 For use in cooling processes (dev);
 Rail/road transport;
 for fuel deliveries/taking waste away (dev);
 flat land;
 Plenty of land/room;
 for large building/high generating capacity (dev);
 Solid foundations;
 Due to weight of reactors/cooling towers (dev);
 positioned well in relation to National Grid/supply network;
 for ease of distribution of electricity (dev);
 Not close to large centres of population;
 Danger of radiation; perception of danger/public opposition (dev) etc;
 No reserve on description/explanation

5 @ 1 mark or development (explanation) [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail which describe how the use of a form of energy threatens the natural environment.

(e.g. pollutes the atmosphere, deforestation etc)

Level 2 (4–6 marks)

Uses named example

More developed statements which describe how the use of a named form of energy threatens the natural environment.

(e.g. the burning of coal burning pollutes the atmosphere with gases such as carbon dioxide/sulphur dioxide, causing acid rain, which damages forests, and kills aquatic life, extraction in opencast mines destroys landscape, and vegetation, gases result in global warming/enhanced greenhouse effect, which causes melting of ice caps/rise in sea level, resulting in flooding of areas of coastal lowland etc).

(NB MAX 5 if no named example)

Level 3 (7 marks)

Uses named example (e.g. Poland).

Comprehensive and accurate statements describing how the use of a named form of energy threatens the natural environment.

(e.g. the use of coal for generating over three quarters of Poland's electricity pollutes the atmosphere with gases such as carbon dioxide/sulphur dioxide, causing acid rain, which damages forests in the Tatra mountains, and kills aquatic life, extraction in opencast mines around Katowice destroys landscape, and vegetation, gases result in global warming/enhanced greenhouse effect, which causes melting of ice caps/rise in sea level, resulting in flooding of areas of coastal lowland such as Maldives etc) [7]

[Total: 25]

6 (a) (i) Photograph C

1 mark

[1]

(ii) Ideas such as:

they can only use small areas of land;
no access to markets/they live in isolated areas/no way to transport crops;
they need to feed their families/they have large families;
their output is low/they don't produce a surplus;
no money to buy fertilizers/machines etc

2 @ 1 mark

[2]

(iii) Features such as:

product/food is produced for sale/export;
large areas of land used/large fields/open fields/large scale production;
growing oil seed rape/flowers;
undulating/gently sloping land;
they use machinery/capital intensive;
monoculture/single crop etc

3 @ 1 mark

[3]

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- (b) (i) Reduction of numbers in Asia but increase in Africa (reserve);
 c. 95–100 million to 240–260 million in Africa;
 c. 640–645 million to c. 310–320 million in Asia

3 @ 1 mark

[3]

- (ii) Ideas such as:
 Poor farming practices;
 Overcultivation/overgrazing;
 Exhaustion of soils/soil erosion;
 Wars/conflicts;
 Can't afford irrigation/fertilizers/pesticides/herbicides/seeds;
 Lack of availability of irrigation/fertilizers/pesticides/herbicides/seeds;
 Lack of agricultural technology;
 Production of non food crops;
 Population is too large to feed (or reason);
 Lack of government assistance to farmers etc

4 @ 1 mark

[4]

- (iii) Ideas such as:
 Green revolution (credit specific details eg IR8/HYV rice);
 Use of fertilizers/manure;
 Irrigation (credit specific methods);
 Pesticides;
 crop rotation;
 farmers cooperatives;
 use of intermediate/appropriate technology (credit examples);
 land reform/consolidation/put plots together etc

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited describing a large scale commercial farming system.
 (e.g. soil, harvesting, cereal crops)

MAX L1 if candidate selects an example of subsistence farming.

Level 2 (4–6 marks)

Uses named example

More developed statements describing the chosen farming system.
 (e.g. deep, fertile soils, harvesting using combine harvester, cereal crops exported for bread making)

(NB MAX 5 marks if no named example)

Level 3 (7 marks)

Uses named example (eg Large scale cereal growing in Canadian Prairies).

Comprehensive and accurate statements including correct reference to a named area.
 (e.g. wheat farming in the Canadian Prairies - deep, fertile chernozem soils, harvesting using combine harvester, cereal crops exported for bread making through Great Lakes etc) [7]

[Total: 25]