CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2014 series

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.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

Page 2	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2014	0460	12

The features of the marking scheme

Each question carries 25 marks. Candidates cannot earn above the maximum marks available within 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.

Levels of response marking is used for section **(c)** of each question.
Thus it is the quality of the response that determines which level an answer is achieved rather than the quantity of statements contained within it. However, once assigned to a level the mark achieved within that level is determined by the number of points made.

Levels 1 and 2 are distinguished by whether statements are simple (level 1) or developed/elaborated (level 2). A candidate can immediately enter L2 by making developed points without making any L1 statements. In order to achieve L3 a candidate must have already reached the top end of L2 – in addition his/her answer should have a clear example and if the answer is place specific as well (7 marks).

Where statements are assigned levels by the examiner this should be indicated by the use of L1, L2 and L3 next to the statements. A summary of the overall level and mark awarded should be written at the end of the answer. Ticks should **not** be used on answers that are marked using levels of response marking.

Summary:

Level 1 (1 to 3 marks):
1 simple statement (1 mark)
2 simple statements (2 marks)
3 simple statements (3 marks)

Level 2 (4 to 6 marks):
1 developed statement (4 marks)
2 developed statements (5 marks)
3 or more developed statements with example (6 marks)

Level 3 (7 marks)
3 or more developed statements + named example with at least one piece of place specific detail.

1 (a) (i) Mongolia

1 mark [1]

(ii) The countries with a large/larger population may have a large/larger land area/it all depends on the size of the country;
population and area statistics for two countries

2 @ 1 mark [2]

(iii) Ideas such as:
they are areas of desert/there are inadequate water supplies/arid;
food cannot be grown/infertile soils/not enough food;
they are isolated/remote/have poor access;
there are few resources;
there is little employment/no jobs;
temperatures are low for much of year/long winters/short summers;
high/steep relief/areas of mountains;
areas of dense vegetation/forest, etc.

3 @ 1 mark [3]

(b) (i) As population increases more species become extinct (1 mark reserved);

either:
slow increase in both up to 1950;* (1 mark)
rapid increase in both since 1950;*(1 mark)
or:
both start slow and increase more rapidly;* (1 mark)

use of statistics for any two years to show relationship from the graph.

N.B. No marks for reasoning.

3 @ 1 mark [3]

(ii) Ideas such as:
more land needed for homes/farms/industry;
there are more people so more vegetation is cleared/deforestation occurs;
habitats are lost;
breeding patterns disrupted by human activity;
more species (or example) are hunted/wiped out for food/medicine;
more species are destroyed by water/air pollution or named type such as global warming or acid rain;
impact on food chains

4 @ 1 mark [4]

(iii) Ideas such as:
people do not have enough <u>natural</u> resources/raw materials;
lack of fuel/power (or example such as electricity);
lack of work;
poverty;
inadequate food supplies;
starvation/famine;
poor access to education;
poor access to health care/lack of hospitals;
high levels of disease/high death rates;
lack of/overcrowded housing/not enough space for housing;
people live in squatter settlements;
traffic congestion;
atmospheric/water pollution <u>causing health problems</u> (or example);
inadequate water supply;
lack of sanitation,
overuse of agricultural land;
overgrazing;
disputes over agricultural land/places to live, etc.

N.B. The focus is on people. Environmental problems would need qualifying in terms of the impact on people. Development is of the problem rather than the reason.

5 @ 1 mark or development   [5]

(c) Levels marking

<u>Level 1</u> (1–3 marks)
Statements including limited detail which explain distribution of population.

<u>Level 2</u> (4–6 marks)
Uses named example.
More developed statements which explain distribution of population.

(**N.B.** max. 5 if no named or inappropriate example)

<u>Level 3</u> (7 marks)
Uses named example.
Comprehensive and accurate statements including some place specific reference.

<u>Content Guide:</u>
Answers are likely to refer to:
Relief
Accessibility
Climate
Water supply
Employment
Natural resources
Impact of an extreme event
Trade, etc.

Page 5	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2014	0460	12

<u>Place specific reference is likely to consist of:</u>
Named parts of the chosen country/locational detail
Population data, etc.   [7]

[Total 25 marks]

2 (a) (i) (A list of/diagram to show) settlements in an area arranged in size/importance **or** a list of settlements in order of size/importance **or** settlements arrange in levels/rank order

1 mark   [1]

(ii) the larger the size of the settlement the fewer of that type of settlement
the larger the size of the settlement the greater the number of services

N.B. 3 ticks = 1 mark if 2 are correct

Candidates can indicate their choice in any way.

2 @ 1 mark   [2]

(iii) Services in a large town are likely to be:
higher order;
more specialist/more comparison stores/less convenience stores;
be larger in size/larger shopping centres;
have greater variety/choice;
they are more advanced/sophisticated;
comparative example, e.g. department store compared with general store, secondary school compared with primary, etc. The answer should compare similar sorts of examples. (2 max.)

N.B. Needs to compare. Assume the answers relates to the town unless otherwise stated.

3 @ 1 mark   [3]

(b) (i) A = Comparison (shop)
B = Specialist (shop)
C = Convenience (store)

3 @ 1 mark   [3]

© Cambridge International Examinations 2014

(ii) Ideas such as:
they are high order services/goods;
they are specialist/they sell comparison goods;
people travel a long way to use them/large range;
as there are none available where they live/villages do not have these services;
they may use them infrequently/goods are high cost;
they are easily accessible/centrally located;
other high order services or tourist sites or work places are available nearby;
they use advertising;
wide variety of goods/large in size;
services are more advanced/sophisticated/high quality goods, etc.

4 @ 1 mark [4]

(iii) <u>Benefits such as:</u>
safer shopping environment/no danger from cars;
less atmospheric pollution/exhaust fumes;
less noise <u>from vehicles</u>;
easier access for disabled people/wheelchair users;
aesthetically pleasing;
encourages walking which is healthy;

<u>Problems such as:</u>
more difficult access for delivery vehicles/emergency vehicles;
public transport stops may need to be more distant from shops/people may need to walk further;
no passing trade from road traffic;
people have to carry heavy shopping further to their cars/cannot park vehicles outside the shops;
creates traffic congestion elsewhere in the city, etc.

(**N.B.** max. 3 on Benefits/Problems)

5 @ 1 mark or development [5]

Page 7	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2014	0460	12

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which explain the original growth of an out of town shopping area.

Level 2 (4–6 marks)
Uses named example.
More developed statements which explain the original growth of an out of town shopping area.

(**N.B.** max. 5 if no named or inappropriate example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements including some place specific reference.

Content Guide:
Answers are likely to refer to:
Accessibility
Market area/sphere of influence
Cost of land
Availability of space
Planning regulations
Environmental quality, etc.

Place specific reference is likely to consist of:
Locational details
Details of transport/communication network
Named shops and services, etc.

N.B. The example can be a town/city or an out of town shopping centre. However, for L3 both must be correct and can be used for place specific. The answer should offer explanation. The focus should be the original growth. [7]

[Total 25 marks]

3 (a) (i) Constructive

1 mark [1]

(ii) Heating of magma;
convection currents;
magma rises up through mantle

2 @ 1 mark [2]

(iii) Ideas such as:
plates move or slide towards/past/away from each other or plates collide;
friction/plates get locked together/plates stick;
build up of pressure or tension or energy;
pressure or tension released/sudden jolt;
shockwaves/seismic waves/vibrations on surface, etc.

3 @ 1 mark   [3]

(iv) Ideas such as:
they can't afford to move;
they have lived there all their lives/sentimental attachment;
lack of space elsewhere/they have nowhere else to go;
there is work/education/source of income available;
relatives/friends in area;
confidence in precaution/buildings;
they are unaware of the risk/people don't think it will happen;
willing to take the risk/benefits outweigh the risk (or example);
they do not happen very often, etc.;

4 @ 1 mark   [4]

(b) (i) Ideas such as:
so people are prepared/they know what to do;
buildings are likely to be evacuated in an orderly way;
people will be protected from falling debris/trees;
people will be less likely to be hurt by breaking glass;
if the building collapses it is safer away from it;
so people can better listen for instructions/be aware of dangers;
move to inner wall as it is less likely to collapse, etc.

N.B. No double credit for repeat of reasons. Candidates may use a different approach to answer the question. For example, if you don't follow this advice…this might happen.

3 @ 1 mark   [3]

(ii) Ideas such as:
poor quality or weak buildings;
buildings easily collapsed;
building regulations are not enforced;
poor medical services;
people cannot be properly treated for their injuries;
less disaster planning/emergency procedures
rescue equipment/disaster relief;
poor education re: earthquake precautions;
less investment in emergency services;
LEDCs have to wait longer for rescue teams or relief/poor transport infrastructure;
buildings/structures are not earthquake proof, etc.

N.B. No need for comparison. Assume LEDC viewpoint. Accept MEDC viewpoint if specified. Do not double credit.

5 @ 1 mark or development   [5]

Page 9	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2014	0460	12

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which describe effects of volcanic eruption on people/or environment.

Level 2 (4–6 marks)
Uses named example.
More developed statements which describe effects of volcanic eruption on people/or environment.

(**N.B.** max. 5 if no named or inappropriate example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements referring to people **and** natural environment, including some place specific reference. You can include statements credited at L1.

Content Guide:
Answers are likely to refer to:
Deaths and injuries
Damage to buildings and property
Damage to infrastructure
Destruction of crops/impacts on food supplies
Destruction of natural vegetation
Pollution of atmosphere
Long term impact on soil fertility, etc.

Place specific reference is likely to consist of:
Locational details
Details of named buildings/infrastructure destroyed
Numbers of deaths/injuries
Economic cost
Time/magnitude/date of eruption, etc.

N.B. Use of accurate statistics to accompany a point would be L2. However, deaths and injuries should be treated as one idea. Effects can be positive and negative.   [7]

[Total 25 marks]

Page 10	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2014	0460	12

4 (a) (i) 3–3.2 kms   [1]

(ii) Position of old course can still be seen/the old course is marked on the map/old course is left behind;
there is an oxbow lake/detached from main river

2 @ 1 mark   [2]

(iii) Shown on map;
meander – on map on current course of the river (not on oxbow lake or old course);
Willersley;
farm to the north of Priory Wood

3 @ 1 mark   [3]

(iv) Ideas such as:
fertile soils/high yields of crops;
good grazing land;
water from river <u>for</u> drinking/washing/in homes/irrigation, etc.;
flat <u>building</u> land;
transport along river;
easy communications/roads/railways can be built along valley;
power available from river/water mills/HEP;
scenic beauty/make money from tourists;
source of food/fishing;
clay for building or making pots, etc.

4 @ 1 mark   [4]

(b) (i) Features such as:
shallow;
wide channel;
gentle long profile;
debris/rocks in channel/pebbles/slip off slope/river beach/deposition has taken place;
splits into two channels/has a small island in middle/braided;
gently sloping valley sides;
grass/woodland/heather;
wide valley, etc.

3 @ 1 mark   [3]

(ii) Ideas such as:
hydraulic action;
power/force/weight of water will wear away loose materials;
abrasion/corrasion;
debris carried by river will scrape along the bed/banks;
corrosion/solution;
acids in water will carry out carbonation/dissolve rocks like chalk and limestone;
lateral erosion;
sideways erosion as water moves quickly around the outside of bends;
vertical erosion;
downwards erosion of the river bed, etc.

5 @ 1 mark or development   [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which explain why flooding occurs.

Level 2 (4–6 marks)
Uses named example.
More developed statements which explain why flooding occurs.

(**N.B.** max 5 if no named or inappropriate example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements, including some place specific reference.

Content Guide:
Answers are likely to refer to:
precipitation
snow melt
removal of vegetation
rock type
impact of roads, buildings and drains
tides/surges
global warming
tsunamis, etc.

Place specific reference is likely to consist of:
locational details
details of amounts of precipitation
named settlements along river
time/date, etc.

N.B. The example can be an area or a river. Use of accurate statistics is L2.   [7]

[Total 25 marks]

5 (a) (i) Mountains/volcano

1 mark [1]

(ii) Historical buildings/ruins/historical places/palaces/castles;
statues/monuments/towers;
museums/galleries;
shops/markets;
theatres/cinemas/nightclubs/casinos/nightlife;
churches/temples/cathedral/places of worship;
festivals/carnivals;
unique buildings/attractions;
parks and gardens;
sporting venues;

2 @ 1 mark [2]

(iii) Ideas such as:
high temperatures/warm/hot;
15–25 °C (any figure in range)/month and temperature;
low rainfall;
rainfall between 5–15 mm per month (any figure in range)/month and rainfall

3 @ 1 mark [3]

(iv) Ideas such as:
(in Dec–Feb/winter) there is likely to be snow/temperatures are below zero;
attractive for winter sports/people can go skiing;
mild temperatures/not excessively hot;
walking/climbing mountains/camping;
attractive scenery/lots of vegetation/sightseeing

4 @ 1 mark [4]

(b) (i) More food sold = earn profits/income/money

Jobs created = lowers unemployment/income for people/raises standard of living/people can save money/able to work

Investment in airports and roads = better access for local people/job creation/local economy develops/less congestion/better transport system

3 @ 1 mark [3]

(ii) Ideas such as:
increase in local traffic congestion;
atmospheric pollution causes breathing difficulties;
loss of local culture/traditional way of life;
impact of behaviour of tourists/drunkenness, etc.;
noise;
exploitation/low paid jobs/long hours;
seasonal work;
shortage of water supplies for local people;

litter;
lack of privacy;
loss of farmland/living space for building;
long queues for shops/services;
higher prices for locals;
disrespect for religious sites/beliefs;
investment in tourist facilities rather than facilities for locals

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which explain how tourism is damaging the natural environment.

Level 2 (4–6 marks)
Uses named example.
More developed statements which explain how tourism is damaging the natural environment.

(**N.B.** max. 5 if no named or inappropriate example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements, including some place specific reference.

Content Guide:
Answers are likely to refer to:
Loss of vegetation/deforestation
Impact on habitats and food chains
Pollution of beaches, seas and rivers
Atmospheric pollution
Visual impact, etc.

Place specific reference is likely to consist of:
Locational details
Specific details of species affected
Named settlements in tourist area, etc.

[7]

[Total 25 marks]

6 **(a)** **(i)** (Producing crops/animals/farming) for sale/profit

1 mark [1]

(ii) Graph completion:

2 marks = 3 plots and a line
1 mark = 1 error made
0 marks = more than one error made

2 @ 1 mark [2]

(iii) Ideas such as:
variation in precipitation/water availability;
amount of sunshine;
temperature differences;
incidence of frost;
pests/disease/floods/natural hazards;
fluctuation in world price of coffee/fluctuation in demand;
amount of land used for coffee;
amount of fertilizer used/soil fertility declines/soil has been exhausted;
government subsidies/grants offered by government;
quality of seeds, etc.

3 @ 1 mark   [3]

(iv) Ideas such as:
farmers can add manure/fertilizer;
use of crop rotation/land left fallow;
avoidance of monoculture/overcultivation
avoiding overgrazing;
contour ploughing;
terracing;
building small walls to trap soil;
planting windbreaks or hedges;
cover-cropping/inter-cropping/strip farming;
dry farming;
mulching, etc.

4 @ 1 mark   [4]

(b) (i) Ideas such as:
distribution is uneven;
widespread;
high/most production in Minas Gerais or lowest/low production in Rio and Mato Grosso;
area close to coast is important/less production inland;
particularly South East Brazil;
statistics which support any point made (max. 1 reserve)

3 @ 1 mark   [3]

(ii) Reference to factors such as:
temperatures;
rainfall/water supply;
length of growing season;
fertility of soil;
relief;
market;
availability of government subsidies;
quotas;
availability of finance/capital;
sunlight;

Page 15	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2014	0460	12

farmer's choice/perception;
land availability/size of farm;
demand/profitability;
accessibility;
labour, etc.

5 @ 1 mark or development   [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which describe the impacts of water shortages on the people/economic development.

Level 2 (4–6 marks)
Uses named example.
More developed statements which describe the impacts of water shortages on the people/economic development

(**N.B.** max. 5 if no named or inappropriate example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements, including some place specific reference.

Content Guide:
Answers are likely to refer to:
dehydration
impact on food supply/malnutrition/starvation
migration
water borne diseases
negative impact on agricultural production
difficulty of developing manufacturing industry
restriction on development of tourism
HEP
cost of creating a water supply infrastructure, etc.

Place specific reference is likely to consist of:
Locational details
Specific details of settlements/areas affected
Named groups/tribes living in the area, etc.

N.B. The development is of the impact.   [7]

[Total 25 marks]