CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2

0460 GEOGRAPHY

0460/13 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 October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

The features of the marking scheme

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

The marking scheme attempts to give guidance about the requirem number of responses, which will earn marks along with the general marking each question.

It should be noted that candidates can earn marks if their answers 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 and appropriate example and if the answer is place specific as well (7 marks). Highlight place specific detail.

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 e.g. (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) Death rate is higher than birth rate/Birth rate is lower th
but birth rate is 9.2

1 mark

(ii) 44.1 – 16.6 (1 mark)
= 27.5 (per 1000) (1 mark)

2 @ 1 mark

(iii) Ideas such as:
Short life expectancy;
Poor treatment of diseases/lack of medicines/lack of vaccinations;
Lack of health care facilities/hospitals/clinics;
Lack of investment in doctors/nurses;
High levels of named example of disease e.g. Typhoid/AIDS;
Lack of investment in care homes/services for elderly;
No pensions;
Poor diet/food supply/starvation/malnutrition/hunger;
Poor water supply;
Sanitation/hygiene/drought;
War/civil war;
Not educated about disease/hygiene;
etc.

3 @ 1 mark [3]

(iv) Ideas such as:
Small family size;
Availability/people can afford contraception/family planning;
Knowledge of contraception/family planning;
Emancipation of women;
Women are more career minded/busy with jobs;
High cost of children;
Abortion (availability of or legality of abortion)
The desire for material possessions;
Late marriages;
Low infant mortality rate/most children survive;
Availability of pensions;
Have children later in life (so have fewer of them);
etc.

NB: reverse ideas for LEDC's are acceptable e.g. no need for children to work on farm.

4 @ 1 mark [4]

(b) (i) Ideas such as MEDC pyramid is likely to:
have narrower base/less young people/less 0–4/less bab
be less pyramid shaped/more evenly spread across ages
have wider top/apex/larger top/more old people/large am
have wider middle section/bigger middle section/more wo
etc.

NB Could refer to MEDC or Zambia but account must be

3 @ 1 mark

(ii) Ideas such as:
High dependency ratio;
So people have to work harder to look after large
Families (dev)/so there are more children to support (dev)/costs more to look after children (dev);
Many children not educated/cost of providing education/cannot afford education/need more schools to be built (dev)lack of nursery places (dev);
Therefore literacy remains low/low skills levels or examples (dev);
Cost of providing food/cannot afford food/lack of food/need to provide more food;
Therefore starvation/malnutrition (dev);
Lack of/cost of/difficulty of providing water;
Stress or pressure on the working population;
Money has to be spent on their healthcare needs/can't afford to treat them;
If money spent on young the country can't afford to spend on other things or named examples;
Less chance of women being able to work;
Overcrowded housing;
Children abandoned/more street children/children involved in crimes or examples;

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing policies t
dependents.

Level 2 (4–6 marks)
Uses named example
More developed statements describing policies to reduce nu

(NB: MAX 5 marks if no named example)

Level 3 (7 marks)
Uses named example (e.g. China).
Comprehensive and accurate statements describing policies to reduce numbers of young dependents, including some place specific reference.

Candidates could refer to ideas such as:
Contraception
Government incentives
Government sanctions
etc.

NB: the question is asking for a description of the policy not impacts of the policy. [7]

[Total: 25]

2 (a) (i) Areas where people live/areas of housing.

1 mark [1]

(ii) A. Area B as there are more people living in 500 hectares/same sized area/B has 7 per HA compared with 4 per HA in A.

NB: must be comparative

B. Area A as redevelopment has taken place or B is described as older

NB: no need for comparative

2 @ 1 mark [2]

(iii) Ideas such as in area A there is:
a greater percentage of professional/managerial;
greater percentage of skilled manual workers;
lower percentage of unskilled
slightly more non-manual
etc.

NB: Must be comparative

3 @ 1 mark [3]

(iv) Advantages such as:
Close to/cheaper to get to/quicker to get to CBD for empl
Well served by public transport;
Cheap housing;
Local shops/amenities;
Close knit communities
Nearer to industrial areas for jobs;
etc.

Disadvantages such as:
Congested roads;
Limited space/overcrowded houses;
Noise from works/traffic;
Lack of off road parking/garages;
No gardens;
Air pollution from traffic/factories;
Houses in need of repair or poor quality;
etc.

2 + 2 @ 1 mark [4]

(b) (i) Land use types such as:
Commercial;
Civic;
Office

3 @ 1 mark [3]

(ii) Ideas such as:
Some people may support it because:
They will be able to use the cinema;
And not have to travel so far to use one (dev);
They may gain business from people coming into the area to use the cinema;
e.g. local shops (dev);
It will be more attractive than a vacant property;
They may get employment in the cinema etc.

Some people may oppose it because:
It will create noise;
Because more people are coming into the area (dev);
And extra traffic;
So there may be delays/parking problems (dev);
It may result in competition for other leisure providers in the area;
Some would prefer a different use e.g. school;
Litter;
etc.

NB: Reserve one mark for support and one for oppose ideas.

(5 @ 1 or development) [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing the main ch surrounding the city.

Level 2 (4–6 marks)
Uses named example
More developed statements describing the main changes in l the city.

NB MAX 5 if no named example.

Level 3 (7 marks)
Uses named example (e.g. London).
More developed statements describing the main land uses in the rural urban fringe, including some place specific reference.

Candidates may refer to ideas such as:
Loss of farmland
Building of leisure facilities
Building of shops
Building of factories/warehouses
Transport developments

NB: Answers must relate to area surrounding the city not CBD or Inner city, however, some simple ideas may be generic e.g. new houses/shops/roads. [7]

[Total: 25]

3 **(a)** **(i)** An upland area/high area of land formed by the buckling/bending/moving up of the earth's crust/plates

1 mark [1]

(ii) Nazca; South American

2 @ 1 mark [2]

(iii) Such as:
Two continental plates meet/an oceanic and a continental plate;
Same density plates;
Layers of sediment/sedimentary rock accumulate;
One plate won't subduct/give way;
Crust/rocks get bent and crumpled/into a series of folds;
Layers of crust/rock gets uplifted as a result,
etc.

3 @ 1 mark [3]

(b) (i) Ideas such as:

Idea from Fig 6:	Matched with any hazard for people s
Pyroclastic flow	Kill/crush/injure/burn people
Volcanic bombs	Destroy/damage/burn buildings
Ash cloud	Destroy/damage/burn farmland
Lava	Disruption to transport
	Reduced visibility
	Poison from toxic fumes/suffocate/breathing difficulties/choke people

3 @ 1 mark [3]

(ii) Ideas such as:
Plates converge/push together;
Subduction of one plate (oceanic);
Greater density of oceanic plate;
Friction/heating;
Destruction of oceanic plate/turns to magma/melts;
Build up of magma/pressure;
Magma rises through lines of weakness;
etc.

4 @ 1 mark [4]

(iii) Ideas such as:
Soils are fertile/can be used for farming;
So yields of crops are high (dev);
They can generate electricity from the volcano;
Using geothermal power (dev);
The volcano attracts tourists;
And they can get jobs as tour guides (dev);
The volcano provides raw materials;
Such as sulphur (dev)
Scientists/geologists study volcano;
etc.

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing impacts of an e

Level 2 (4–6 marks)
Uses named example
More developed statements describing impacts of an earthqu

(NB MAX 5 if no named example)

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

Candidates may refer to impacts such as:
Loss of life
Injuries
Homeless
Damage to buildings
Damage to infrastructure
Disruption of transport
etc. [7]

[Total: 25]

4 (a) (i) A wind which blows **from** the west/to the east

1 mark [1]

(ii) 09.00 Cirrus

14.00 Cumulonimbus

2 @ 1 mark [2]

(iii) Differences such as:
Afternoon is colder/morning is warmer;
Morning has stronger wind speeds/wind speed dropped in afternoon;
Wind direction from west in morning north west in afternoon;
Dry in morning but rain in afternoon;
Better visibility in morning;
Clear sky in morning but cloudy in afternoon;
etc.

3 @ 1 mark [3]

(b) (i) Anemometer = wind **speed/**velocity

Wind vane = wind **direction**

Sunshine recorder = sunshine **hours/**amount of sunshine

3 @ 1 mark [3]

(ii) Ideas such as
In the open/open space/away from trees and/or buildings
So readings are not affected by shelter they provide (rea
Above grass/not above concrete;
As temperatures above concrete will be artificially high (r
So that rain doesn't bounce off concrete into rain gauge;
In a fenced/walled compound;
To avoid tampering (reason);
On the roof of a building;
So winds are not slowed down by obstructions;

4 @ 1 mark with 1 mark reserved for each of describe/explain [4]

(iii) Ideas such as:
Funnel;
Attached to a cylinder;
Cylinder fits inside a larger outside container;
20 cm in diameter/and 50 cm tall (dev);
Half of it is buried in the ground;
The height of the water in the small graduated cylinder is measured/poured into a measuring cylinder;
Checked every 24 hours;
Water emptied;
etc.

NB: Diagram not compulsory. No double credit for labeling and text.

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail explaining chosen weathering type.

Level 2 (4–6 marks)
States correct weathering type linking with explanation.
More developed statements explaining chosen weathering type.

NB: MAX 5 if stated weathering type does not match explanation or no process is stated.

Level 3 (7 marks)
States correct weathering type linking with explanation.
Comprehensive and accurate statements with labelled diagram(s) [7]

[Total: 25]

5 (a) (i) Carbon dioxide, methane, ozone, nitrous oxide, water va

1 mark

(ii) A. less heating needed (in winter);
B. more HEP generated/increased forest productivity for

2 @ 1 mark

(iii) Ideas such as:
Extension of agriculture into areas to north/higher latitudes/nearer poles;
Longer growing season;
More drought/less water for crops to grow;
Flooding of farmland;
Changing temperatures affects growth of crops;
etc.

3 @ 1 mark [3]

(iv) Ideas such as:
Temperature patterns change/some increase some decrease;
Melting of ice cover/less icebergs/glaciers retreat;
Rising of sea levels;
Coastal flooding;
Loss of/changing habitats;
Extinction of species;
Species may migrate permanently;
Impact on ecosystems/food chains;
Reduction in food/water supply for wildlife;
Changing rainfall patterns/drought;
Natural vegetation dies/grows in areas it previously didn't grow;
Desertification/spread of deserts;
Increased strength of /frequency of tropical storms;
etc.

4 @ 1 mark [4]

(b) (i) Ideas such as:
General rise over the period/temperatures have increased;
From –3.3 to –2.2 (1.1) from (1906 to 2002)/–3.9 to –0.7 increase of –3.2;
However fluctuations/not constant;(NB: not just min/max temps)
e.g. 0.3 degrees in 1926, higher than –5.5 in 1956 (must refer to years and statistics here);
etc.

3 @ 1 mark [3]

(ii) Ideas such as:
Generation of electricity;
By using fossil fuels/in coal fired power stations (dev);
Burning fuels/oils/petrol in vehicles/transport;
Air travel;
Deforestation;
Which prevents use of carbon dioxide by trees;
Ranching/grazing of cattle (releases methane);
Factories burning coal;
Incineration of waste;
etc.

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing causes of water pollution.

Level 2 (4–6 marks)
Uses named example
More developed statements describing causes of water pollution.

NB MAX 5 if no named example

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

Candidates may refer to causes such as:
Sewage disposal
Industrial effluent
Farming activities
Nuclear waste
Oil spillage
etc. [7]

[Total: 25]

6 (a) (i) Work in hotel/waiter/taxi driver/tourist guide/selling souvenirs/working for tourist agency; etc.

1 mark [1]

(ii) Environmental cost = air/water pollution/destruction of natural environment
Environmental benefit = protection of natural environment

2 @ 1 mark [2]

(iii) Ideas such as:
Tourists wear inappropriate clothing (or example);
Or drink alcohol;
Tourism can encourage use of drugs;
Prostitution may take place in tourist areas;
(must state any of above) may be insulting to culture/relig
Assaults/robberies/pick-pocketing/violence;
etc.

3 @ 1 mark

(iv) Ideas such as:
Foreign exchange/increased economic growth/money brought into area/more government revenue;
Enabling spending on education/hospitals or other examples;
Development of infrastructure (water, electricity, or other examples);
Development of transport or examples;
Cultural exchange;
Retention of culture/traditions;
Increased market for local farmers;
More business for local shops;
They will build more facilities e.g. swimming pools that locals can use too;
etc.

4 @ 1 mark [4]

(b) (i) Ideas such as:
Sandy beaches;
Tropical/colourful vegetation/plants;
Clear/clean/blue/calm seas/water;
Temples/religious sites/mosques/churches/cathedrals;
Statues;
Marinas/areas of boats/port/harbour/sailing;
Mountains;
Old buildings/ancient buildings;
etc.

3 @ 1 mark [3]

(ii) Ideas such as:
Lack of raw materials for investment in industry;
And imports would be expensive (dev);
Difficult to establish market for manufactured products;
Large/increasing demand for tourism;
Skills base is poor for development of manufacturing;
As traditional employment has been in farming (dev);
Weather/climate/landscape favours development of to there;
Therefore overseas investors are happy to invest in Tourism development;
Many jobs in tourism are low skill/pay;
Tourism is seen as less damaging to the environment than Manufacturing/to build factories is more damaging;
Lack of technology;
Lack of infrastructure e.g. roads/ports to transport goods in and out;
etc.

NB: Reserve one mark for reference to each of tourism and manufacturing.

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing what has been done to conserve the natural environment.

Level 2 (4–6 marks)
Uses named example.
More developed statements describing what has been done to conserve the natural environment.

NB: Max 5 if no named example.

Level 3 (7 marks)
Uses named example (e.g. Menorca).
Comprehensive and accurate statements describing what has been done to conserve the natural environment, including some place specific reference.
Candidates may refer to ideas such as:
National parks
Restricting tourist numbers
Conserving wildlife
Education of tourist
etc. [7]

[Total: 25]