CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0460 GEOGRAPHY

0460/11 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 2014 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.
1 (a) (i) Higher/more density in Victoria/26 (per sq km) (Victoria) compared with 9/10 (per sq km) (NSW)/Victoria is denser/more than double/triple/has twice as many people living there; etc.

N.B.: Need to state which region they are referring to. [1]

(ii) Density is a measure of how closely packed they are/number of people per sq km or unit area;

Distribution shows how people are spread around the area/where they live. [1][2]

(iii) Ideas such as:
- Population distribution is uneven;
- Mainly coastal;
- Especially in eastern/south/south east;
- Coasts of states such as Queensland/NSW;
- Many inland/central areas are empty/desert area is empty/few in Northern territory/Western Australia;
- Population more evenly spread across Victoria/Tasmania; etc. [3 × 1][3]

(b) (i) Ideas such as:
- Steep slopes/mountainous/high land/no flat land; A and C
- Agricultural land; B
- Lack of employment; A, B and C
- Isolation/inaccessible/remote; A, B and C
- Densely vegetated; A
- Infertile soils/can’t grow crops/produce food; etc. C [3 × 1][3]

(ii) Ideas such as:  

**High density:**
- People prefer to live there or there is a higher population density in temperate climates or areas that are warm/not too hot/not too cold/medium amount of rainfall;
- Explanation – for example, it is easier to grow crops;

**Low density:**
- People do not want to live there or there is a lower population density in areas of extreme climate/harsh climate/arid areas/(very) cold areas/icy areas/areas that are too wet etc.;
- Explanation – for example, there is a lack of water supply for drinking.

N.B: No double credit on explanations for opposites. Must be climatic ideas. [4 × 1][4]
(iii) Ideas such as:
- Flat land;
- Less expensive to build infrastructure;
- Easy to construct settlement;
- Good accessibility;
- Ease of trade/exporting goods/build ports/harbours;
- Fishing;
- Work in tourism or examples leisure/tourism/tourist activities;
- Sporting activities;
- Water for industry;
- Scenic value/retirement/clean sea air/sea breeze; etc. [5 × 1] [5]

(c) Levels marking

Level 1 [1–3 marks]
Statements including limited detail which explain why it has a high rate of population growth.

Level 2 [4–6 marks]
Uses named example.
More developed statements which explain why it has a high rate of population growth.

(N.B. Max 5 if no named 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:
Contraception,
Religion,
Tradition,
Women’s education,
Economic value of children,
Care in old age,
Lack of government policy,
Migration etc.

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

[Total: 25]
2  (a) (i) Settlements in an area in order of size/importance/services/population/a list of settlements in a pyramid shape.  

(ii) There are more smaller settlements than large ones/not many big settlements and lots of small/there are more smaller settlements than large ones. (1)  

E.g. Only 2 large towns but 14 small towns/only 5 large villages but 17 small ones. (1) [2 × 1]  

(iii) Ideas such as:  
- Higher order in Navan;  
- Larger sphere of influence in Navan;  
- More public transport or examples in Navan;  
- More specialist in Navan;  
- More services in Navan;  
- Shopping malls in Navan/bigger shops in Navan;  
- More schools/secondary school in Navan, primary school in Nobber;  
- More hospitals/bigger hospitals in Navan/clinic in Nobber but hospital in Navan/hospital in Navan none in Nobber; etc.  

N.B: expect that answer refers to Navan unless otherwise stated but must be comparative. Can state opposite ideas e.g. smaller/less in Nobber. [3 × 1]  

(iv) Ideas such as:  
- For work;  
- Buy specialist goods/shopping trips/comparison goods/chain stores/specialist services/greater choice/variety of shops;  
- University;  
- Specialist hospital/large hospital;  
- Entertainment or example (e.g. international football/rugby match/theatre);  
- Government departments (e.g. to get a passport);  
- To see family and friends; etc. [4 × 1]
(b) (i) Ideas must relate to the developer not shoppers or workers, such as:
- Cheap land = so money can be saved;
- Room for expansion = as large areas may be needed to extend the mall in the future;
- Plenty of parking space = as people go there by car/increases number of likely customers;
- Good accessibility = for shoppers/deliveries so they are not stuck in traffic jams;
- Attractive environment = to attract more families/shoppers;
- Workers close by = so it is easy to obtain labour force; etc. [3 × 1] [3]

(ii) Ideas such as:
- Less business for other services/shops/loss of customers;
- Reduced profits;
- Closure of shops;
- Properties are left empty;
- Empty properties may be vandalised/graffitied;
- Dereliction of parts of CBD/doughnut effect;
- It becomes less busy/noisy/crowded; etc. [5 × 1] [5]

(c) Levels marking

Level 1 [1–3 marks]
Statements including limited detail which describe the environmental problems as a result of urban sprawl.

Level 2 [4–6 marks]
Uses named example.
More developed statements which describe the environmental problems as a result of urban sprawl.

(N.B. Max 5 if no named 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,
Loss of habitats,
Extinction of species,
Water pollution,
Air pollution etc.

Place-specific reference is likely to consist of:
Named parts of the city/locational detail,
Specific reference to species etc.

N.B.: LEDC example is max 5. [7]

[Total: 25]
3 (a) (i) Friday [1] [1]

(ii) Graph completion [2 × 1] [2]

(iii) Wind vane = wind direction

Barometer = Air/atmospheric pressure

Wet and dry bulb thermometer = (Relative) humidity [3 × 1] [3]

(iv) Ideas such as:
- Use rain gauge;
- Rainfall enters through funnel;
- Check at set time each day/every 24 hours;
- Pour from container into measuring cylinder;
- Read off level;
- Digital rain gauge; etc. [4 × 1] [4]

(b) (i) Ideas such as:
- D is more likely to produce rain E is not/D is stormy E is fair weather;
- D are dark and E are white;
- D cover the whole sky E do not;
- D are lower than E;
- D are nimbus/cumulonimbus E are cirrus;
- D is thick or dense/E is thin or wispy or sparse;
- D has more clouds/fewer or less in E; etc.

N.B: Need comparison or to state which picture they are referring to. [3 × 1] [3]

(ii) Ideas such as:
- High humidity in TRF;
- More evaporation in TRF than desert;
- More vegetation in TRF;
- More transpiration in TRF;
- More condensation/saturation in TRF;
- Air rises in TRF/sinks in desert;
- High pressure in desert/low pressure in TRF;
- Deserts are further away from water sources/sea/lack of water to evaporate;
- Winds have lost their moisture blowing over large areas of land; etc.

N.B: Reserve 1 on each area (TRF and Desert). Don’t need comparison. [5 × 1] [5]
(c) Levels marking

Level 1  
[1–3 marks]
Statements including limited detail which describe impacts of drought on people and/or the natural environment.

Level 2  
[4–6 marks]
Uses named example.
More developed statements which describe impacts of drought on people and/or the natural environment.
(N.B. Max 5 if no named example)

Level 3  
[7 marks]
Uses named example.
Comprehensive and accurate statements which describe impacts of drought on people and the natural environment, including some place-specific reference.

Content Guide:
Answers are likely to refer to:
Loss of vegetation/species,
Loss of habitats,
Extinction of species,
Lack of food/low crop yields,
No drinking water,
Death/dehydration/starvation etc.

Place-specific reference is likely to consist of:
Named parts of the country or countries within the area (if large area like the Sahel chosen)/locational detail,
Specific reference to species/tribal groups,
Statistical information etc.

N.B: Can be LEDC or MEDC but impacts will be different.  
[7]

[Total: 25]
4 (a) (i) Large part/piece/section of the earth’s crust or surface/the way in which the
Earth’s surface is broken or fractured into pieces; [1] [1]

(ii) On Fig. 5. [2 x 1] [2]

(iii) Ideas such as:
- X is closer to a plate boundary/Y is further away;
- X is weaker part of the crust than Y;
- Plates move in relation to each other at X but not at Y;
- At X friction/plate boundaries lock;
- Friction overcome/jolts apart; etc.

N.B: Assume referring to X unless otherwise stated. No need for comparison.[3 x 1] [3]

(iv) Ideas such as:
- Convection currents moving in mantle;
- Plates move together;
- Subduction occurs/denser plate sinks/forced under;
- Friction/heating;
- Destruction/melting of crust;
- Pressure builds up/gases build up/magma builds up;
- Magma forced upwards/magma finds its way to surface (through
  cracks); etc. [4 x 1] [4]

(b) (i) Ideas such as:
- Gases produced/gases released by hot magma;
- Volcanic activity releases gases-causes gases to escape;
- Gas cloud moved by wind/blown away.

N.B: Points must show some understanding and not be directly copied from
Fig. 6. If all three points are directly copied then 1 mark max. [3 x 1] [3]

(ii) Ideas such as:
- They can’t afford to move;
- They have lived there all their lives/sentimental attachment;
- Lack of space elsewhere;
- Population pressure;
- They do not want to move away from work/farmland/education;
- Work in tourist industry;
- Relatives/friends in area;
- Confidence in prediction;
- They are unaware of the risk;
- Willing to take the risk/benefits outweigh the risk (or example);
- Fertile soils;
- High yields of crops;
- Geothermal power;
- A cheap source of energy;
- Scientists/study the volcano;
- Minerals/quarries/lava;
- Worship volcano;
- Use of hot springs for health benefits/tourism; etc. [5 x 1] [5]
(c) Levels marking

**Level 1**
Statements including limited detail which describe impacts of earthquake. [1–3 marks]

**Level 2**
Uses named example.
More developed statements which describe impacts of earthquake.
(N.B. Max 5 if no named example) [4–6 marks]

**Level 3**
Uses named example.
Comprehensive and accurate statements, including some place-specific reference. [7 marks]

**Content Guide:**
Answers are likely to refer to:
Damage to buildings,
Fire/explosions,
Death/injury,
Impacts on infrastructure,
Economic impacts/loss of work,
Cost of rebuilding etc.

Place-specific reference is likely to consist of:
Named parts of the city or area/locational detail,
Reference to specific plates,
Statistical information/date/magnitude, etc. [7]

[Total: 25]
5 (a) (i) 15–16 billion Swiss francs. [1] [1]

(ii) Ideas such as:
- Renting rooms/hotels/stay in hotels;
- Selling souvenirs/trade in shops/buy from shops/paying for goods;
- Providing food for tourists;
- Transportation for tourists;
- Currency exchange;
- Entry fees into museums/tourist attractions or examples;
- Work (in tourist industry) so earn wages/pay taxes;
- Selling of visas; etc. [2 × 1] [2]

(iii) Ideas such as:
- Hotels;
- Restaurants;
- Transportation/taxi drivers/bus drivers etc.;
- Entertainment industry (or example e.g. busker)/at tourist attractions; max.1
- Shop/selling fruit/souvenirs/jewellery;
- Construction;
- Jobs on farms producing food for tourists;
- Tour guides/holiday reps;
- Keeping area clean;
- Travel agencies;
- Water/ski instructor (or other type of instructor); etc. [3 × 1] [3]

(iv) Ideas such as:
- Earns more money so can afford to do so;
- (Build/better/improve) roads/railways;
- (Build/extend) airport;
- (Build) ports;
- Electricity network/supply electricity;
- Water pipes/supply water;
- Sewage disposal facilities/public toilets;
- Better infrastructure to attract more/cope with numbers of tourists; etc. [4 × 1] [4]

(b) (i) Natural attractions such as;
- Mountains;
- Glacier/ice and snow;
- Lakes etc. [3 × 1] [3]
(ii) Ideas such as (must be problems for people):

- Increase in local traffic/congestion;
- Atmospheric pollution causes asthma or breathing problems;
- Loss of local culture/traditional way of life/lack of respect for local cultures/people;
- Impact of behaviour of tourists/drunkenness etc.;
- Noise;
- Exploitation/low paid jobs/long hours;
- Seasonal work;
- Shortage of water supplies;
- Litter from tourists;
- Lack of privacy;
- Loss of land for building/loss of farmland;
- Increase in property prices;
- Railway too busy/no seats on trains/long queues in shops;
- Prices in shops increase;
- Water pollution (impact on people);
- Visual impact;
- Crime or example; etc.  

(c) Levels marking

**Level 1**  
[1–3 marks]  
Statements including limited detail which describe the impacts of tourism on the natural environment.

**Level 2**  
[4–6 marks]  
Uses named example.  
More developed statements which describe the impacts of tourism on the natural environment.

(N.B. Max 5 if no named example)

**Level 3**  
[7 marks]  
Uses named example.  
Comprehensive and accurate statements, including some place-specific reference.

Content Guide:
Answers could be positive or negative and are likely to refer to:
Loss of vegetation/deforestation,
Impact on habitats and food chains,
Pollution of lakes, seas and rivers,
Atmospheric pollution,
Conservation of natural environment by National Parks etc.

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

[Total: 25]
6 (a) (i) Mexico. [1]

(ii) More in Canada/less in Ecuador/greater/only; (1)
7100 in Canada compared with 726 in Ecuador/10x as much in Canada, etc.
N.B.: Must state which country referring to. [2 × 1] [2]

(iii) Ideas such as:
- More mechanization of farms in MEDCs;
- More people work in industry/more factories/machines used in factories in MEDCs/more farms in LEDC’s;
- Greater amount of transport in MEDCs;
- Electricity more likely to be used in the home in MEDCs or examples e.g. fridge/cooker/vacuum;
- More energy used for heating/air conditioning/lighting in homes in MEDCs;
- MEDC’s are more urbanized; etc.
N.B: Assume referring to MEDC unless otherwise stated. Don’t need comparison. [3 × 1] [3]

(iv) Ideas such as:
- Water is a basic need for survival/the body needs water/cannot function without water/prevent dehydration/prevents people being thirsty;
- Reduction of water borne diseases or examples e.g. cholera, typhoid/dirty water kills people;
- People are able to work/able to produce food/earn money;
- More water for irrigation for use in agriculture/increases yields of crops;
- Develop manufacturing industry (or example); etc. [4 × 1] [4]

(b) (i) Groundwater = water in the rocks/aquifer/below the surface/underground;
- Desalination = taking salt out of (sea)water;
- Recycling = treated or cleaned and reused; [3 × 1] [3]

(ii) Ideas such as:
- Treatment of waste water;
- Regulations on pollution of rivers;
- Strict enforcement;
- Hosepipe bans/use buckets instead;
- Use of water meters;
- Paying for water;
- Use showers not baths/take shorter showers;
- Put brick in toilet cistern;
- Turn off taps when not being used;
- Use of roof-top tanks/water butts/collecting rainwater;
- Mend leaking pipes;
- Use of drip irrigation;
- Educate people about the careful use of water;
- Re-use/recycle water or examples; etc. [5 × 1] [5]
(c) Levels marking

**Level 1**
Statements including limited detail describing how a country obtains its energy.

**Level 2**
Uses named example.  
More developed statements describing how a country obtains its energy.

(N.B. max 5 if no named example)

**Level 3**
Uses named example.  
Comprehensive and accurate statements, including some place-specific reference.

**Content Guide:**
Answers are likely to refer to:
- Fossil fuels,
- Nuclear power,
- HEP schemes,
- Solar/wind/wave/tidal energy,
- Geothermal energy,
- Fracking, etc.

Place-specific reference is likely to consist of:
- References to places within the country/locational details;
- Statistical information, etc.

[7]

[Total: 25]