



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

GEOGRAPHY

0460/13

Paper 1

May/June 2016

MARK SCHEME

Maximum Mark: 75

Published

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 2016 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

© IGCSE is the registered trademark of Cambridge International Examinations.

This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **15** printed pages.

© UCLES 2016



[Turn over

Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

- 1 (a) (i) Movement of people from one area/place/country/location to another/in or out of the country;
- 1 mark [1]
- (ii) Involuntary = People are forced to migrate
International = migration from one country to another
Internal = migration within a country
- 3 correct = 2 marks
2 correct = 1 mark
0 or 1 correct = 0 mark [2]
- (iii) Ideas such as:
- reduction of/loss of male/young/working/active population/less people to do jobs/imbalanced population sex structure;
 - reduction in food supply/starvation/malnutrition/reduction of farm production/lack of farmers/farms neglected;
 - less pressure on utilities or example (water supply);
 - less pressure on services or example (hospitals);
 - social problems or example/no-one to look after elderly;
 - benefit of remittances or example/send money back;
 - families divided;
 - underused services e.g. schools/shops close down;
 - easier to find work for people left behind;
 - less people to share food among;
 - travel further to access services; etc.
- 3 @ 1 mark [3]
- (iv) Ideas such as:
- (lack of) work/(un)employment/more job opportunities;
 - low/high paid work;
 - people cannot afford/so people will be able to afford housing/lower house prices;
 - people cannot afford/so people will be able to afford health care/free healthcare;
 - people cannot afford/ so people will be able to afford education/government provides free education/subsidized education;
 - high exchange rate/strong currency;
 - poor economy/poverty/low GDP/lower taxes;
 - expensive living costs; etc.
- NB:** Accept pulls and pushes but no double credit.
Must be economic.
- 4 @ 1 mark [4]

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

- (b) (i)
- Indonesia has negative net migration/more move out than in;
 - Singapore has positive net migration/more move in than out;
 - It's higher in Singapore/net migration higher in Singapore/lower in Indonesia;
 - Comparative statistics – Indonesia –1.25 to –1.3 m compared with Singapore 0.9 to 1 m;

NB: Reserve 1 mark for statistics.

3 @ 1 mark

[3]

(ii) Ideas such as:

- enlarges labour force/helps to exploit resources/do seasonal jobs (dev);
- cheap labour;
- people will do jobs locals will not do/dirty jobs;
- skilled labour; or example – doctors/engineers (dev);
- cultural exchange/multi-cultural society;
- specific services set up; or example – Chinese restaurants (dev);
- stronger military/join armed forces;
- raises more tax revenue/more taxes paid to Government;
- bring new ideas/inventions;
- reduces dependency ratio;
- brings larger market for businesses/shops can sell more;
- increases GDP/helps country to develop /helps the economy;
- employment/revenue for the country created by new businesses/competition lowers prices by new businesses; etc.

5 @ 1 mark or development

[5]

Page 4	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe the problems faced by migrants living in squatter settlements.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe the problems faced by migrants living in squatter settlements.

NB: 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:

- poor quality housing,
- water and air pollution,
- shortage of food and water,
- high crime rates,
- not enough health care and education,
- lack of employment,
- poverty,
- lack of qualifications/skills/education/no experience,
- some cannot speak the language/language barrier,
- low paid jobs,
- may have to live away from their families,
- discrimination may occur,
- exploitation by employers etc.

Place specific reference is likely to consist of:

Named parts of the city/squatter settlement,
Statistical data etc.

NB: Name of urban area can be a city, part of a city or squatter settlement name. If a rural area, country or continent is named then Max. 5. Can accept LEDC or MEDC.

[7]

[Total: 25 marks]

Page 5	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

2 (a) (i) Allow tolerance between 14–16

1 mark [1]

- (ii)
- More for residential than open space;
 - 41–43% residential compared with 20–21% open space;
 - (More than) twice as much used for residential than open space etc.

2 @ 1 mark [2]

(iii) Uses such as :

- parks;
- gardens/allotments;
- woodland;
- playing fields/sports grounds/football pitches/playground;
- public squares;
- car parks; etc.

3 @ 1 mark [3]

(b) (i) Ideas such as:

- Docks/bay to dock ships/harbour/ wharf;
- Apartments/housing/residential;
- Industry/factories/mills/silos;
- Warehouses;
- Roads/car parks;
- Hotels;
- Offices;
- Shops;
- Café/restaurant; etc.

3 @ 1 mark [3]

(ii) Ideas such as;

- near to sea/coastal site/river estuary;
- easy trade/easy import of raw materials/export of finished products;
- flat/low land for construction;
- deep water;
- sheltered water;
- good roads;
- railways;
- lots of industry;
- fish caught/landed;
- development of tourism/cruise liners; etc.

4 @ 1 mark [4]

Page 6	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

- (iii) Characteristics such as:
- high density land use;
 - high rise buildings/skyscrapers,
 - mainly high/middle order;
 - leisure/entertainment facilities;
 - crowded with people/congested;
 - lots of traffic;
 - possibly pedestrianised;
 - high cost land/high rents;
 - shopping/retail facilities;
 - accessible/good transport links or examples/well served by public transport; etc.

NB: MAX 2 on any specific land uses e.g.:

Secondary schools, universities, hospitals, shops, offices, cinema, theatre, shopping malls etc.

5 @ 1 mark or development (which should be description not explanation) **[5]**

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe recent changes which have taken place in CBD

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe recent changes which have taken place in CBD

NB: Max 5 if no named or inappropriate example

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate with some place specific reference.

Content Guide:

Answers are likely to refer to;

- Closure of shops/services;
- Opening of new shops/services/malls,
- Pedestrianisation;
- Traffic improvements etc.

Place specific reference is likely to consist of:

Named roads/malls,

Locational details of services/shops,

Named shops and services etc.

NB: Should be CBD not urban area generally. **[7]**

[Total: 25 marks]

Page 7	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

- 3 (a) (i) Atmospheric/air pressure
- 1 mark [1]
- (ii) 25–26C – 19–20C [1]
= 5–7C (2nd mark)
- NB:** No need for degrees C to be stated.
- 2 @ 1 mark [2]
- (iii) Q = Maximum and minimum thermometer/sixes thermometer;
R = Wet and dry (bulb) thermometer/hygrometer;
S = anemometer;
- 3 @ 1 mark [3]
- (iv) Instruments Q/R:
- they will not be affected by direct sunshine;
 - they will not be affected by wind/ventilation;
 - they will measure conditions of air not ground;
 - they will not be tampered with etc.
- Instrument S:
- The wind will not be blocked;
 - As it will not be sheltered by trees/buildings;
 - It will not be tampered with; (no double credit)
- Reserve 1 mark for each of Q/R and S.
- 4 @ 1 mark [4]
- (b) (i) Ideas such as:
- Photograph C clouds are white/D are grey;
 - Photograph C clouds are higher;
 - Photograph D's clouds cover a greater proportion of sky than photograph C/D covers sky C doesn't/more in D than C/bigger clouds in D/sparse in C dense in D;
 - Photograph D's clouds are more likely to bring rain;
 - Photograph C clouds are stratus/cirrus/D cumulus;
 - Photograph C is thin D is thick idea; etc.
- 3 @ 1 mark [3]

Page 8	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

- (ii) Ideas such as:
- Heating/heat;
 - Evaporation;
 - Transpiration/evapotranspiration;
 - air/water vapour rises;
 - cooling;
 - condensation;
 - saturation;
 - convection; etc.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which explain how its characteristics are influenced by the Equatorial climate.

Level 2 (4–6 marks)

Uses named example.

More developed statements which explain how its characteristics are influenced by the Equatorial climate.

NB Max 5 if no named or inappropriate example)

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements which explain how its characteristics are influenced by the Equatorial climate. including some specific reference or examples/types of plants.

Content Guide:

Answers are likely to refer to:

- Vegetation types,
- Height and density of vegetation,
- Evergreen nature of vegetation,
- Fauna,
- Constant hot/wet climate,
- Humidity etc.

Place specific reference is likely to consist of:

Details of named parts of the area

Reference to specific flora/fauna,

Statistical information

Examples of species e.g. Mahogany etc.

[7]

[Total: 25 marks]

Page 9	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

4 (a) (i) Area of land drained by a river and its tributaries

1 mark [1]

(ii) In the soil = infiltration/throughflow
In the rock=percolation/groundwater flow

2 @ 1 mark [2]

(iii) Ideas such as:

- variation of precipitation within drainage basin;
- variation in vegetation cover/in some areas there is more/less vegetation/presence/absence of trees;
- type of trees e.g. coniferous compared with deciduous/broad leaf;
- size of trees;
- as precipitation can reach the surface directly;
- trees are likely to intercept more precipitation than grass;
- as their leaves have more surface area; etc.

NB: Ideas must link to interception

3 @ 1 mark [3]

(iv) The river is likely to become:

- wider;
- deeper;
- with more discharge;
- faster flowing;
- more meandering/winding;
- more load;
- smaller size of particles in load;
- more deposition less erosion or examples;
- presence of ox-bow lakes;
- levees;
- gradient is less steep/flatter;
- channel bed gets smoother;
- Vertical erosion at A and lateral erosion at B; etc.

4 @ 1 mark [4]

(b) (i) Ideas such as:

- arc like/arcuate/triangular shaped/fan shaped;
- north facing/flows to north;
- many distributaries/splits into smaller rivers/streams;
- 200–300km maximum west to east;
- 150–200km maximum from north to south; etc.

3 @ 1 mark [3]

Page 10	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

(ii) Ideas such as:

- large amounts of sediment brought downstream;
- deposition in lower course;
- as speed of flow is reduced ;
- and flocculation occurs due to salt in water;
- deposited silt blocks course of river;
- which splits into distributaries to reach sea ;
- deposited materials are not washed away/grows towards sea;
- due to lack of current;
- colonization by vegetation; etc.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which explain the causes of flooding.

Level 2 (4–6 marks)

Uses named example.

More developed statements which explain the causes of flooding.

NB: Max 5 if no named or inappropriate example)

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements, including some specific reference.

Content Guide:

Answers are likely to refer to:

- Heavy/continuous rainfall,
- Saturation of rocks/soil,
- Snow melt,
- deforestation,
- building on flood plains/urbanisation,
- lack of protective measures
- Dam collapsed etc.

Place specific reference is likely to consist of:

Locational details;

Statistical information etc.

[7]

[Total: 25 marks]

Page 11	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

5 (a) (i) 34–35

1 mark [1]

(ii) Coal

Renewables

2 @ 1 mark [2]

(iii) Ideas such as:

- Takes millions of years to make/they are non- renewable/may become exhausted/run out;
- Increasing/fluctuating costs;
- Costs of transport/extraction are high;
- They pollute the atmosphere/give off greenhouse gases/carbon dioxide;
- Fears over global warming;
- Cause acid rain; etc.

3 @ 1 mark [3]

(iv) Ideas such as:

Benefits such as:

- low production cost;
- no air pollution/greenhouse gases/global warming/no emissions/no gases;
- small amounts of raw materials/uranium required/will last a long time/produce large amount of energy from small amounts of uranium/little amount of raw material;

Problems such as:

- Construction costs are high/decommissioning costs are high;
- Worries over radiation/reactor meltdown/concerns over cancers or mutations;
- Storage/disposal of waste is not easy/radioactive waste produced;
- Land cannot be used after closure for many years; etc.

NB: Reserve 2 marks on each of benefits/problems)

4 @ 1 mark [4]

Page 12	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

- (b) (i) Ideas such as:
- SE/SW/South of Cape Cod;
 - NW/North of Nantucket Island;
 - off south east (coast) of Massachusetts;
 - 10 km from Cape Cod;
 - In Nantucket Sound;
 - NE of Martha's vineyard; etc.

NB: Need to name a place/feature and give direction and/or distance from it.

3 @ 1 mark

[3]

- (ii) Ideas such as:

Opponents will argue that:

- There is a visual impact/turbines can be seen for many miles;
- Hotel owners may be worried about loss of tourism/impact on water sports;
- birds flying into turbines/kill birds;
- marine ecosystems disrupted by construction;
- possible disruption to shipping;
- fishing industry problems;
- only small amount of energy can be generated relating to initial cost;
- energy will only be generated when wind is blowing;
- construction costs are expensive;
- problems during construction or examples; etc.

Supporters will argue:

- Low cost electricity once constructed;
- Non-polluting form of energy;
- Creation of employment for construction/maintenance;
- Away from land so no noise pollution;
- Renewable/sustainable electricity produced;
- Windier off-shore than on land; etc.

NB: Reserve 1 mark for opponents/supporters

5 @ 1 mark or development

[5]

Page 13	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe and/or explain the location of industry.

Level 2 (4–6 marks)

Uses named example.

More developed statements which explain the location of industry.

NB: Max 5 if no named or inappropriate example

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements, which describe and explain the location of industry, including some place specific reference.

Content Guide:

Answers could refer to:

- Raw materials,
- Market,
- Power supplies,
- Communications,
- Inertia,
- workforce etc.

Place specific reference is likely to consist of:

Locational details;

Specific details of industry

Named/numbered roads etc.

[7]

[Total: 25 marks]

Page 14	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

6 (a) (i) USA China Brazil

1 mark [1]

(ii) Domestic = use in the home
industrial = use in factories

2 @ 1 mark [2]

(iii) Ideas such as:

- Canada uses more per person overall;
- Mexico uses a greater amount in agriculture;
- Canada uses a greater amount in industry;
- Canada uses a greater amount domestically;
- Canada most in industry but Mexico most in agriculture;
- Canada least in agriculture but Mexico least in domestic; etc.

NB: Alternatively comparative statistics can be used.

3 @ 1 mark [3]

(iv) Ideas such as:

- Canada has more rainfall/farmers need to use more Irrigation/Mexico has less rainfall/more drought/more water shortages;
- Mexico has lots more farmland/Mexico relies more on farming/Canada can import food;
- Canada is has more industries;
- Homes in Canada have many appliances which use water;
- Canada has better water supply infrastructure or examples e.g. pipes; etc. (or reverse statements)

NB: No need for comparisons.

4 @ 1 mark [4]

(b) (i) springs
wells
reservoirs
river
Or accept named examples from map.

3 @ 1 mark [3]

Page 15	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0460	13

(ii) Ideas such as:

- water is an essential for life/essential to survive;
- without it people would become dehydrated;
- good infrastructure will ensure supplies are continuous;
- people will not have to walk long distances to fetch water/don't waste time fetching water;
- water will be clean/not carry disease so people will not suffer water borne diseases or example/good health;
- industries depend on water for processing/cooling;
- electricity generated using water supplies;
- hospitals have access to water;
- don't have to worry about water shortages;
- long life expectancy;
- hygiene/sanitation improved; etc.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which explain the causes of food shortages.

Level 2 (4–6 marks)

Uses named example.

More developed statements which explain the causes of food shortages.

NB: 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:

- Drought,
- Natural disasters,
- War,
- Pests,
- Crop diseases,
- Commercial farming,
- Poverty/unemployment etc.

Place specific reference is likely to consist of:

Locational details;

Specific details of settlements/areas affected,

Statistical information etc.

[7]

[Total: 25 marks]