Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

GEOGRAPHY	**0460/13**
Paper 1	**May/June 2016**
MARK SCHEME	
Maximum Mark: 75	

Published

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

1 (a) (i) Movement of <u>people</u> 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]**

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(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]**

(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]

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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]**

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(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]

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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]**

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(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]

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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]**

(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

<u>Level 1</u> (1–3 marks)
Statements including limited detail which explain the causes of flooding.

<u>Level 2</u> (4–6 marks)
Uses named example.

More developed statements which explain the causes of flooding.

NB: Max 5 if no named or inappropriate example)

<u>Level 3</u> (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]

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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]**

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(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]**

(c) Levels marking

<u>Level 1</u> (1–3 marks)
Statements including limited detail which describe and/or explain the location of industry.

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

NB: Max 5 if no named or inappropriate example

<u>Level 3</u> (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]

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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]**

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(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 <u>processing/cooling</u>;
- 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

<u>Level 1</u> (1–3 marks)
Statements including limited detail which explain the causes of food shortages.

<u>Level 2</u> (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)

<u>Level 3</u> (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]