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CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0460 GEOGRAPHY

0460/11 Paper 1, maximum raw mark 75

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1 (a) (i) Asia [1]

(ii) A. Europe;
B. Asia (2 × 1 mark) [2]

(iii) Ideas such as:
- high birth rates/growth rates;
- education about family planning/sex education/contraception;
- lack of, cost of, access to contraception/family planning (max 1);
- economic reasons for large families;
- high infant mortality;
- decreasing death rates/increased life expectancy;
- investment in health care/vaccinations/better, more doctors/nurses (max 1);
- better water supply/sanitation;
- traditional/in their culture/part of their religion to have large families (max 1);
- improved food supplies/nutrition/better diet; etc. (3 × 1 mark) [3]

(iv) Ideas such as:
- Poverty;
- people do not have enough resources;
- pressure on energy supplies (or example)/strain on utilities e.g. gas or electricity;
- lack of work;
- inadequate food supplies/malnourished/starvation;
- poor access to education/government spend more on education;
- poor access to health care/government spend more on healthcare;
- overcrowded housing/homeless/shanty towns develop;
- inadequate water supply/sanitation/government spend more on water supply or sanitation;
- overuse of agricultural land/overgrazing;
- deforestation/loss of natural vegetation/habitats;
- increase in specified pollution type (Max 1) etc. (4 × 1 mark) [4]

(b) (i) Ideas such as:
- uneven distribution;
- many people live near/densely populated near Lake Victoria/in South;
- many in/densely South West/near Rwanda border;
- many close to capital city/Kampala/close to cities (urban area);
- many along river between lake Victoria and Lake Kyoga;
- few/sparsely populated in NE/North of country;
- few/sparsely populated near South Sudan border/Northern Kenyan border;
- any appropriate latitude and longitude with corresponding dense/sparse/many/few reference (Max 1); (3 × 1 mark) [3]

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(ii) Ideas such as:

- more likely to live on flat land;
- people are more likely to live in lowland areas/avoid living in mountains/live in a valley;
- people live in areas of temperate climates/where it is wet/warm;
- people avoid areas which are too hot/too dry/too cold/areas with extreme climate conditions;
- flood plains are avoided;
- swampy areas are not built on;
- in tropical areas higher land is attractive to live in as temperatures are lower;
- large areas of rainforest are sparsely populated;
- people live near a water source/rivers/nodal points for rivers/where rivers meet;
- people live near fertile soil;
- defensive sites e.g. surrounded by mountains/meander/on a hill;
- dry desert areas are avoided/have few people;
- near to natural resources/fossil fuels/minerals; etc.

NB: development is likely to be explanation e.g.as mountains/steep slopes are difficult to build on (dev) or need fields to graze cattle/grow crops; etc.

Max 1 development mark for each idea.

No double credit for opposites. (5 × 1 mark or development) [5]

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(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which describe and/or explain recent changes in population structure.

Level 2 (4–6 marks)
Uses named example.

More developed statements which describe and/or explain recent changes in population structure.

(NB Max 5 if no named example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements describe and explain recent changes in population structure, including some place specific reference.

Content Guide:
Answers will depend on country chosen but most are likely to refer to;

- ageing population,
- reducing proportion of young dependents;
- increasing proportion of elderly
- male/female imbalance
- migration ideas; etc.

place specific reference is likely to consist of:
named parts of the chosen country/locational detail,
population data etc.

NB: do not combine simple description and explanation for level 2. [7]

[**TOTAL: 25 marks]**

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2 (a) (i) Apatzingan/ Los Reyes/Nueva Italia/Patzcuaro/Zacapu/Zamora (1 mark) [1]

(ii) A. An area of countryside with scattered buildings/houses/separated by distance/large area where houses/services are separated/outside city;

NB: need both dispersed idea and rural location for mark.

B. A built up area/town/city/area with high population/high density buildings/lots of people live there/industrialised area; (2 × 1 mark) [2]

(iii) Ideas such as:
- flat land/room for expansion;
- industry/factories/businesses;
- markets for surrounding area/trade from surrounding area;
- migration (from surrounding rural area);
- commercial/retail development;
- mining/raw materials/extraction of resources;
- meeting of roads/route centre/transport links meet together;
- central location; etc. (3 × 1 mark) [3]

(iv) Ideas such as:
It is typical of a hierarchy – reserve 1 mark;
- there are more small settlements/low order than large ones/high order;
- larger settlements are further away from each other than small ones/smaller ones are closer together;
- there is only one settlement over 200 000 but there are 9–11 settlements of 10 001 to 20 000 people or 38–40 settlements between 2501 and 10 000 people;
- alternatively could provide comparative examples of distances;
- NB: Statistics must be comparative or could use terms such as most/least/many/few; (4 × 1 mark) [4]

(b) (i) Ideas such as:
- travel more varied distances for shops;
- e.g. 0.5km to 25 km for shops compared with 20–23 km for leisure;
- generally travel further for leisure/don't travel as far for shopping;
- a valid comparison e.g. meat and cinema;
- anomaly is furniture as travel up to 25kms but must refer to different idea; etc.

NB: Must be comparative

(3 × 1 mark) [3]

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(ii) Ideas such as;

- travel further for high order goods;
- it depends on the availability of the services;
- e.g. there are lots of shops selling bread (dev);
- so people will be able to buy it locally (dev);
- main leisure facilities may only be found in large urban areas;
- so have to travel to a nearby city to go to cinema (dev);
- for some goods people go further so they have a better choice/a wider variety of goods in some shops;
- travel further for a better quality product;
- General frequency of use idea e.g. don't go there very often so will travel further;
- travel further for a specialized shop not found near where they live;
- travel further for cheaper prices;
- travel further for expensive goods e.g. car; etc

NB: Any example used properly is acceptable for development.

(5 × 1 mark or development) [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which describe location and/or sphere of influence of a shop or service.

Level 2 (4–6 marks)
Uses named example.

More developed statements which describe location and/or sphere of influence of a shop or service.

(NB Max 5 if no named example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements which describe location and sphere of influence of a shop or service.

Content Guide:
Answers will depend on example chosen, however reference may refer to location:

- within CBD,
- on specific street,
- road network,
- proximity other services etc.(7)

NB: Not looking for explanation

[7]

[TOTAL: 25 marks]

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3 (a) (i) Wet and dry bulb thermometer/hygrometer (1 mark) [1]

(ii) Ideas such as:
- read off wet and dry bulb temperatures/read both temperatures;
- use relative humidity table/chart;
- work out depression of wet bulb(2)/subtract wet bulb from dry bulb (8–6)/work out difference between the two;
- read off figure at intersection of dry bulb and wet bulb depression figures (where 8 and 2 intersect)/must convey how they would use the table; etc.

(2 × 1 mark) [2]

(iii) Ideas such as:
- reflect sun`s rays/so they are not heated by the sun/to avoid direct sunlight;
- so that air flows gently around them/they are not affected by the wind;
- so they measure condition of air not ground;
- so they are a standard height above ground;
- so they are not affected by concrete;
- to avoid tampering; etc. (3 × 1 mark) [3]

(iv) Two marks for instruments and two for weather characteristics they measure:

e.g. maximum and minimum thermometer = highest and lowest temperatures/measure max and min daily temps

barometer = air pressure (4 × 1 mark) [4]

(b) (i) Ideas such as:
- west/SW is more likely in March/or comparative stats 11/7 days compared with 3 days from West and 2 from South West in October;
- October more days with winds from 5 from north/7 from north west/compared with 2 from North/ 1 from North East in March;
- as an alternative to first two lines can have statement such as mainly from west in March but mainly from North/North west in October;
- fewer days with winds from the (2)east in March/(4) in October;
- more calm days in (27)October/more days with wind in March (29); etc

NB: Must compare March and October any two sets of statistics for max 1.

(3 × 1 mark) [3]

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(ii)

- wind direction is recorded with a wind/weather vane;
- labelled diagram of wind vane/description (MAX 2);
- direction noted is where the wind is blowing from/arrow points to where the wind is blowing from;
- wind speed is recorded with an anemometer;
- labelled diagram of anemometer/description (MAX 2);
- both connected to computer/digital weather station;
- check instruments every X hours to get reading;
- locational idea of both instruments placed high up/on a roof/away from trees (Max 1);

NB: 1 mark for diagram with title

2 marks for diagram with title and labelling

No double credit for diagram and text. Etc.

(5 × 1 mark or development/labelling) [5]

(c) Levels marking

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

Level 2 [4–6 marks]
Uses named example.

More developed statements which describe the impacts of drought.

(NB Max 5 if no named example)

Level 3 [7 marks]
Uses named example.
Comprehensive and accurate statements which describe the impacts of drought, including place specific information.

Content Guide:
Answers are likely to refer to:

- death,
- starvation,
- malnutrition,
- reduction of yields/loss of crops and livestock,
- forced migration,
- drying up of water courses,
- death of natural vegetation,
- impact on food chains/ecosystems etc [7]

[TOTAL: 25 marks]

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4 (a) (i) Wearing away/breaking down of land/cliffs by the sea/waves
(1 mark) [1]

(ii) A = Cave/Notch
B = (Natural) Arch (2 × 1 mark) [2]

(iii) Headland drawn to show stage 3 with isolated stack;
labelling of stack;
reference to collapse of roof of arch either in text or on diagram; (3 × 1 mark) [3]

(iv) Ideas such as:
- alternate bands of hard and soft rock along coasts with bays and headlands;
- hard rock resists erosion;
- hard rock forms headlands;
- soft rock easily eroded;
- soft rock form bays;
- differential erosion; (4 × 1 mark) [4]

(b) (i) Ideas such as:
- high;
- steep;
- overhanging/undercut;
- brown rock/red/rust coloured;
- large block at base/boulders at base;
- layers;
- jagged;
- crumbly appearance;
- bare rock; etc. (3 × 1 mark) [3]

(ii) Ideas such as:
- hydraulic action;
- air in cracks compressed (dev);
- corrasion/abrasion;
- loose materials thrown at cliff by waves (dev);
- corrosion;
- rocks dissolved by chemicals in sea water (dev);
- undercutting;
- slumping/collapse;
- as cliff cannot take weight of overhanging section (dev) etc.

(5 × 1 mark or development) [5]

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(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which describe features of coral reef and/or explain formation.

Level 2 (4–6 marks)
Uses named example.

More developed statements which describe features of coral reef and/or explain formation.

(NB Max 5 if no named example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements which describe features of coral reef **and** explain formation, including place specific information.

Content Guide:
Answers are likely to refer to:
- composition of coral,
- biodiversity,
- locational features,
- deposition of calcium carbonate,
- colonization etc.

NB: Accept name of coral reef as alternative to location for level 3.

[7]

[TOTAL: 25 marks]

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5 (a) (i) Manufacturing/making things/assembling things/factories **(**1 mark) [1]

(ii) E = 3
F = 1
G = 2
All 3 correct = 2 marks
1 or 2 correct = 1 mark (2 marks) [2]

(iii) Ideas such as:
- close to port/easy to export/easy to import resources;
- HEP/power/electricity supply/energy supplies;
- Rail transport;
- Large market in the area;
- Labour supply available;
- Mines;
- Trees;
- Water source with dam/lake; etc. (3 × 1 mark) [3]

(iv) Two marks for likely changes and two further marks for suggested reasons.

E.g. Increase in tertiary as people become more skilled/people have more disposable income for services

Increase in secondary as the country industrializes further/MNCs set up factories etc.

Decrease in primary as resources get exhausted/ as mechanization occurs on farms/as people move to cities/better technology used on farms; etc.

NB: must state change first – cannot credit reasoning without change.
(2 × 2 mark) [4]

(b) (i) Inputs = materials used in the factory/raw materials/primary goods;

Processes = Stages of production/convert raw materials into something people use;

Outputs = final product/things that they make in the factory/to sell;
(3 × 1 mark) [3]

(ii) Accept any secondary industry e.g. steel making, sugar manufacture, cars.

- mark reserved for an example and location example can be a name of a company. Location can be any scale, city, area, country.
- 4 marks for processes relevant to chosen example with development as appropriate.

(5 × 1 mark or development) [5]

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(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail explaining location of high technology industry.

Level 2 (4–6 marks)
Uses named example
More developed statements explaining location of high technology industry.

NB MAX 5 marks with no named example

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate answer explaining location of high technology industry including some place specific reference.

There will be likely reference to ideas such as:

- transport links
- labour supplies
- cost of land
- government incentives
- environmental attractions
- economies of agglomeration
- close to components
- market/demand
- close to universities etc.

[7]

[TOTAL: 25 marks]

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6 (a)(i) Record high summer temperatures (in the USA in 2011) (1 mark) [1]

(ii) East coast earthquake (1 mark);
earthquakes are not caused by climate/caused by tectonic action;

(2 × 1 mark) [2]

(iii) Ideas such as:
- burning fossil fuels/oil/coal;
- transport/cars/vehicles/trains/lorries;
- aviation/planes;
- generating electricity/power stations/using electronic devices/using air conditioning units;
- cattle grazing;
- shipping;
- factories;
- deforestation;
- rice production;
- land fill sites; etc. (3 × 1 mark) [3]

(iv) Ideas such as:
- melting of ice caps/glaciers;
- loss of habitats;
- threat to/extinction of species;
- impact on food chains;
- loss of biodiversity;
- flooding of coastal area/rising sea levels;
- some area will become drier/desertification occurs/more droughts;
- crop production will be reduced/more starvation;
- more incidence of weather related hazards/(eg floods/storms);
- tropical insects/mosquitos may spread to other areas;
- loss of income from skiing resorts;
- loss of life due to higher temperatures/coral reefs bleached due to higher sea temperatures; etc.

(4 × 1 mark) [4]

(b) (i) Candidates can choose any source from Fig. 11 (no mark).
Credit ideas relevant to chosen source.

E.g. transport:
burns fossil fuels;
which give off gases/CO_2 or other named examples;
noise from engines/horns; etc. (3 × 1 mark) [3]

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(ii) Candidates can choose any type of pollution from Fig.11 except for Visual as the question refers to the environment not people (no mark for selected example).

Credit ideas relevant to chosen type.

E.g. water pollution:
- Nutrients change composition of water;
- Growth of algae;
- Lowering of oxygen supply;
- Eutrophication (dev)
- Kills fish;
- Predators have no food (dev);
- Destruction of food chain/ecosystem etc. (5 × 1 mark or development) [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail which describe attempts to maintain, conserve or improve the natural environment.

Level 2 (4–6 marks)
Uses named example.

More developed statements which describe attempts to maintain, conserve or improve the natural environment
(NB Max 5 if no named example)

Level 3 (7 marks)
Uses named example.
Comprehensive and accurate statements which describe attempts to maintain, conserve or improve the natural environment including some place specific reference.

Content Guide:
Answers are likely to include reference to:
- legislation,
- national Parks,
- nature reserves,
- specific measures (e.g. tree planting) etc
- eco-friendly transport
- fines for littering [7]

[TOTAL: 25 marks]

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