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Cambridge International General Certificate of Secondary Education

GEOGRAPHY

0460/11

Paper 1

May/June 2016

MARK SCHEME

Maximum Mark: 75

Published

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- 1 (a) (i) South America Europe Asia [1]
- (ii) USA
31 110 [2]
- (iii) Ideas such as:
- lack of qualifications/skills/education/no experience;
 - some cannot speak the language;
 - some are doing low paid jobs;
 - some are unable to obtain employment/not enough jobs;
 - difficulty affording housing/have to live in squatter settlements/cannot find a place to live;
 - some may have to live away from their families;
 - discrimination may occur;
 - exploitation by employers/long hours;
 - hard to fit in with culture/differences in culture/laws (or example – food, etc.)
 - religious persecution/nowhere to worship;
 - lack of documentation, etc. (3 × 1 mark) [3]
- (iv) Ideas such as:
- enlarges labour force/helps to exploit resources;
 - provides cheap labour;
 - people will do jobs locals will not do/dirty jobs;
 - skilled labour (or example – doctors/engineers);
 - cultural exchange/multi-cultural society;
 - specific services set up (or example – restaurant, etc.);
 - raises more tax revenue;
 - larger market for businesses/more sales;
 - helps country to develop/improves economy;
 - employment/revenue for country created by new businesses, etc. (4 × 1 mark) [4]
- (b) (i) Emigration from USA to Mexico increases after 1995 to 2000 **but** emigration from Mexico to USA decreases by 2005–2010;
- 1995–2000 more emigration from Mexico to USA than immigration from USA to Mexico;
2005–2010 more emigration from USA to Mexico than immigration from Mexico to USA/roughly the same amounts of immigration and emigration between Mexico and USA;
- 3rd mark for supporting stats:
1995–2000 to USA 2.9 million, to Mexico 0.68 million
OR
2005–2010 to USA 1.3 million to Mexico 1.4 million (3 × 1 mark) [3]

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(ii) Ideas such as:

- employment;
- high wages;
- good quality/sufficient education/schools/universities/children`s literacy improved/better qualifications, etc.;
- good quality health care/doctors/medicines;
- good quality housing;
- with amenities such as electricity/piped water;
- bright lights/entertainments;
- adequate supplies of food;
- good water supply/sanitation;
- family/friends live there;
- no wars/peace/political stability, etc.

(5 × 1 mark for development) [5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe and/or explain the problems caused by under-population.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe and/or explain the problems caused by under-population.

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:

- shortage of workers
- low level of production
- resources under-used
- high taxes
- lack of government income
- small market for goods and services
- low value of exports, etc.

Place specific reference is likely to consist of:

Named parts of the chosen country/locational detail, population data, etc.

[7]

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2 (a) (i) Coastal location/sheltered water/on an estuary/near the sea, etc. [1]

- (ii)
- Q is located where deep water is available/P near shallow water;
 - P has large areas of mud (at low water)/Q does not have mud;
 - It is difficult for ships to reach P/it is easy for ships to reach Q/P is a long way from open sea;
 - ships are now much larger, etc. (2 × 1 mark) [2]

(iii) Ideas such as:

- S has a large beach(or spit)/R does not have a large beach;
- S is accessible by rail/R is not on the railway line;
- A main road serves S/only a minor road goes to R/S is more accessible/easier to get to;
- S has more amounts of flat land/R has steep land, etc.

NB: Assume the answers relates to S unless otherwise stated. (3 × 1 mark) [3]

(iv) Ideas such as:

- imports/exports/close to port;
- railway line/roads/easy distribution of products/access raw materials;
- can process fish caught locally;
- flat land for building factories;
- water supply for industry, etc.

One mark for simple reason (e.g. it is near a port)

Second mark for explaining the reason (e.g. it is near a port so raw materials can be imported) (4 marks 2 + 2 Dev) [4]

- (b) (i)
- Both are a similar size/small/both approx. 40 000 sq metres (35 000 to 45 000);
 - Ghajn Tuffieha is longer/linear but Fomm ir-Rih is nucleated;
 - Ghajn Tuffieha is 400 metres long/from west to east and Fomm ir-Rih is 200 metres long/from west to east, etc. (3 × 1 mark) [3]

(ii) Ideas such as;

- relief/flat, low land – is better for construction;
- a site close to a wet point/water source/stream/spring/river – provided fresh water;
- fertile land was required – for producing food;
- valley sites – were sheltered from the elements;
- hill tops – were sometimes chosen as defensive sites;
- bridging points/fords – enabled rivers to be crossed;
- dry point – avoided flooding;
- near woodland – for hunting/building materials;
- near roads – for access;
- aspect/south facing (in N hemisphere) – to get more sunshine;
- avoid marshes – so buildings are stable, etc. (5 × 1 mark for development) [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail which describe and/or explain the service provision.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe and/or explain the service provision.

NB MAX 5 if no named or inappropriate example

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements including both description and explanation, with some place specific reference.

Content Guide:

- Answers are likely to refer to;
- Types of services,
- Order of services,
- Size of settlement/population,
- Sphere of influence,
- Threshold population,
- Accessibility,
- Function of settlement, etc.

Place specific reference is likely to consist of:

- Locational details,
- Population statistics,
- Details of transport/communication network,
- Named shops and services, etc.

NB The example can be a named settlement of any size.

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- 3 (a) (i) The magnitude of an earthquake [1]
- (ii) On Fig. 5 [2]
- (iii) Ideas such as:
- uneven distribution;
 - clustered/in groups;
 - in western part of the country;
 - on/close to boundaries (with Russia/China/Kazakhstan);
 - mainly between 87 and 105 degrees East (anywhere within range), etc.
- (3 × 1 mark) [3]
- (iv) Ideas such as:
- location is close to a (destructive)plate boundary/subduction zone;
 - plates move or slide towards each other/one goes under the other;
 - friction/plates get locked together/plates stick;
 - build-up of pressure or tension or energy;
 - pressure or tension released/sudden jolt;
 - creates seismic waves/vibrations, etc.
- (4 × 1 mark) [4]
- (b) (i) Focus= where the earthquake occurred/started/rocks fractured the origin of the earthquake
 Epicentre = the point on the surface directly above the focus/where the earthquake occurs.
 Seismic waves= a wave/vibration which travels within the earth/through the rocks
- (3 × 1 mark) [3]
- (ii) Ideas such as:
- death/injury;
 - destruction/damage to homes;
 - damage to possessions/cars;
 - damage to roads/railways/bridges;
 - loss of electricity/gas/telephone lines/communications;
 - loss/contamination of water supplies;
 - fires;
 - disruption to businesses/workplaces;
 - economic collapse;
 - loss of jobs;
 - food shortages/death of livestock;
 - government buildings destroyed;
 - damage to specific other buildings – e.g. churches/school/hospital/shops/historical buildings/monuments;
- (5 × 1 mark for development) [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail which describe opportunities provided by volcanoes.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe opportunities provided by volcanoes.

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:
- Tourism/scenic beauty,
- mining/mineral exploitation,
- building materials,
- fertile soils/agriculture,
- geothermal power
- cultural/religious significance, etc.

Place specific reference is likely to consist of:

- Locational details,
- Details of named parts of the area,
- Named examples of power stations/tourist resort, etc.

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Page 8	Mark Scheme	Syllabus	Paper
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4 (a) (i) Amazon (Basin)/Congo Basin//Kalimantan, etc. [1]

(ii) On/close to Equator;
up to 7/8 degrees north and south;
in Africa, South America and South East Asia (at least 2 needed), etc.
(2 × 1 mark) [2]

(iii) Describe Hot and wet/high rainfall and temperature;
high temperature through the year/no seasons;
average around 30 °C;
2000 mm of rain or more;
High rainfall all year/each day hot followed by heavy rainfall;
High humidity/humid, etc. (3 × 1 mark) [3]

Explain Overhead sun/high angle of sun/direct sunlight/sun's rays are concentrated;
Low atmospheric pressure;
Rising air;
Large amount of evaporation;
Large amount of transpiration;
Large amounts of condensation;
Build-up of cumulus clouds;
Saturation/convectional rainfall (4 × 1 mark) [4]

- (b) (i) Impacts such as:
- leaf litter destroyed as trees are burnt;
 - micro-organisms are destroyed so less plants grow;
 - less evapotranspiration so there is less rainfall;
 - soil is eroded/leached so plants do not grow well/soils become infertile;
 - plants do not grow when there is less rain;
 - loss of shade so leaching and erosion occurs, etc.

NB No marks for a straight copy of labels without linking ideas together.
(3 × 1 mark) [3]

- (ii) Ideas such as:
- release of carbon dioxide (as a result of burning);
 - trees are no longer available to convert carbon dioxide to oxygen/less oxygen is produced;
 - carbon dioxide traps heats;
 - increases global temperatures/greenhouse effect/global warming;
 - melting of ice caps/glaciers;
 - rising sea level;
 - flooding of coastal areas;
 - loss of habitat;
 - extinction of species;
 - impact on food chains;
 - drought ;
 - damage to coral reefs;
 - increasing number/severity of tropical storms, etc. (5 × 1 mark for development) [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail which explain why the desert climate is hot and/or dry.

Level 2 (4–6 marks)

Uses named example.

More developed statements which explain why the desert climate is hot and/or dry.

NB Max 5 if no named or inappropriate example

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements, which explain why the desert climate is hot and dry, including some place specific reference.

Content Guide:

- Answers are likely to refer to:
- Air pressure,
- Descending air,
- Hadley Cell,
- Wind direction,
- Angle of sun,
- Rain shadow effect,
- Cold ocean currents, etc.

Place specific reference is likely to consist of:

- Locational details;
- Details of amounts of precipitation/temperatures,
- Named winds,
- Names of locations within the desert, etc.

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- 5 (a) (i) El Salvador [1]
- (ii) Countries with higher GNP per capita have a higher percentage with access to clean water/positive relation;
comparative statistics for two countries to illustrate relationship. (2 × 1 mark) [2]
- (iii) Methods such as:
- Wells/water pumps;
 - Rivers/streams/lakes;
 - piped water;
 - dams/reservoirs;
 - collecting rainwater in storage tanks/from roofs;
 - purchase of water from tankers/bottled water, etc. (3 × 1 mark) [3]
- (iv) Ideas such as:
- reduction of water borne disease/diarrhoea;
 - such as typhoid/cholera, etc.;
 - less dehydration/water is needed for life/without water people die;
 - water required for cooking of food;
 - so less malnutrition;
 - less need to carry water for large distances;
 - less time wasted so people can grow more crops;
 - better sanitation/hygiene;
 - irrigation of crops/water for livestock, etc. (4 × 1 mark) [4]
- (b) (i) Ideas such as:
- Large/long/wide/big;
 - very high;
 - built of concrete/stone/rock;
 - large reservoir behind it;
 - road along dam;
 - power station at base of dam/electricity produced there;
 - in a rural/mountainous area, etc. (3 × 1 mark) [3]
- (ii) Ideas such as:
- the project will create employment (during the construction phase);
 - water supply for industry;
 - which will create multiplier effect;
 - generation of HEP/electricity;
 - will encourage economic growth/development/increase GDP;
 - tourists will be attracted to the dam/reservoir;
 - water will be available for local farmers;
 - increased yields of crops;
 - commercial production of crops/exports will increase;
 - reduce costs of/damage caused by floods;
 - sustainable supply of water;
 - can sell water internationally, etc. (5 × 1 mark for development) [5]

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(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which explain how the threats to the natural environment are being managed.

Level 2 (4–6 marks)

Uses named example.

More developed statements which explain how the threats to the natural environment are being managed.

NB Max 5 if no named or inappropriate example

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements, which explain how the risks to the natural environment are being managed, including some place specific reference.

Content Guide:

- Answers could refer to any economic activity but are likely to refer to;
- Manufacturing industry
- Tourism,
- Mining or quarrying,
- Agriculture,
- Generation of electricity,
- transport, etc.

Management strategies will depend on the activity being considered but may include:

- Legislation,
- Planning controls,
- National Park status, etc.

Place specific reference is likely to consist of:

- Locational details;
- Specific details of economic activity or management strategies,
- Named settlements, etc.

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- 6 (a) (i) Jobs/things which are done on a farm to convert inputs to outputs;
turning inputs on a farm into outputs;
actions needed to get an output from a farm [1]
- (ii) Arable – wheat/sugar beet
Pastoral – meat/milk/wool
- NB** Crops and animal products = 1 (2 × 1 mark) [2]
- (iii) Ideas such as:
- variety of items to sell/different types of products to sell;
 - if one product does not do well the farmer has others to fall back on;
 - easier to adapt to market changes;
 - manure from animals can be used to fertilise crops;
 - crop waste can be used to feed animals;
 - the farmer has work throughout the year, etc. (3 × 1 mark) [3]
- (iv) Ideas such as:
- crops are usually grown on flat/low land;
 - as it is easier to mechanise;
 - soils are likely to be more fertile;
 - steep slopes are used for grazing sheep/pastoral farming;
 - thin soils/rough grassland on steep slopes would result in poor yields from crops;
 - sheep are hardy and can withstand cold temperature on mountains;
 - south facing slopes (in northern hemisphere...vice versa in southern) receive more sunshine;
 - and are useful for growing vines;
 - sloping land more be better drained than flat land;
 - so may be used for crops/livestock which will not tolerate waterlogging, etc. (4 × 1 mark) [4]
- (b) (i) Ideas such as:
- More scrub and desert to the west;
 - More rice growing to the east;
 - More wheat grown to the east;
 - All cotton to the east none to west;
 - More crops grown to east (only allow if no marks given for specific crops)
 - More forest to the east;
 - There is scrub to the west but wheat is grown to the east (or similar comparison to MAX 1)
- NB** The answer needs to be comparative (3 × 1 mark) [3]
- (ii) Ideas such factors such as:
amount of land owned;
amount/surplus which can be produced
availability of local markets/demand/profitability;
accessibility/access to distant markets/export market;
wealth of farmers/availability of capital for inputs;
availability of labour supplies;
tradition/culture;
level of education of farmers, etc. (5 × 1 mark for development) [5]

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(c) Levels markingLevel 1 (1–3 marks)

Statements including limited detail which describe the effects of food shortages on the people who live there.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe the effects of food shortages on the people who live there.

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:
- malnutrition/starvation,
- migration,
- weakness/inability to work,
- reduction of future output,
- cycle of poverty,
- dependence on aid supplies, etc.

Place specific reference is likely to consist of:

- Locational details;
- Specific details of settlements/areas affected,
- Named groups/tribes living in the area, etc.

[7]

[Total: 25]