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CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2012 series

0460 GEOGRAPHY

0460/13 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.

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1 (a) (i) Bangladesh

1 mark [1]

(ii) 24.7 – 9.2/birth rate – death rate;
15.5

NB Working is required, along with correct answer for both marks

2 @ 1 mark [2]

(iii) Ideas such as in Pakistan there is:
Lack of availability of contraception/family planning;
Not educated re contraception/family planning;
Can't afford contraception/family planning;
Need children to work on the land;
Need children to send out to earn money;
Need children to look after parents in old age;
Have large families due to tradition/importance of having a son/male virility;
Have large families due to religious influences;
Marry younger/have children at younger age;
Women in Australia want a career first/material possessions;
High infant mortality rate so have more children in the hope some will survive;
etc

N.B: Accept ideas expressed in reverse (ie in Australia there is….)
No double credit for education.

3 @ 1 mark [3]

(iv) Ideas such as:
people do not have enough fuelwood/oil or named examples;
lack of work/high unemployment/not enough jobs;
inadequate food supplies/can't grow enough crops;
can't afford to import food;
poor access to education/overcrowded classes;
poor access to health care/high doctor-patient ratio/not enough hospitals/doctors/hospital beds/clinics/medicines;
overcrowded housing/lack of housing/growth of shanty towns;
traffic congestion;
atmospheric pollution/water pollution/increased waste/litter;
inadequate water supply/sanitation;
overuse of agricultural land/overgrazing/lack of farmland;
deforestation/loss of natural vegetation;
spread of disease/increased health issues or named examples;
etc

4 @ 1 mark [4]

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(b) (i) Coastal areas/near coast/near ocean;
one in south/in Los Angeles San Diego area;
one in central part/ in San Francisco area;
around main cities/near to San Francisco, L.A. and San Diego/between L.A. and San Diego/names all 3 cities;
Etc

3 @ 1 mark [3]

(ii) Ideas such as:
coastal areas for trade;
where ports have been established (dev);
in bays;
as it is sheltered/protected from storms (dev);
areas of flatter land/mainly below 600 metres/low land;
as building is easier on flatter land (dev);
road/rail/transport communications are easier/cheaper to build in lowland areas (dev);
agricultural production is easier on flatter land (dev);
areas with over 250 mm precipitation/high rainfall;
where water supply is easier for domestic use/agriculture/industry (dev)
etc

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which suggest reasons for international migration can be push or pull factors.

Level 2 (4–6 marks)

Uses named example
More developed statements which explain reasons for international migration. Can be push or pull factors.

Level 3 (7 marks)

Uses named example (eg Turkey to Germany).
Comprehensive and accurate statements including some place specific reference. **Must include both push and pull factors**.

Candidates are likely to refer to ideas such as:
Employment
Services
Food Supplies
Conflict
Climatic factors
Natural Disasters
etc.
Place specific detail could include names of areas/places within selected countries. [7]

[Total 25]

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2 (a) (i) Central Business District

1 mark [1]

(ii) C (1 mark)
Evidence for 2nd mark such as:
Pedestrianised area;
High order services/examples e.g. shops/commercial;
Lots of people;
Mainly 3 storey buildings;
etc

2 @ 1 mark [2]

(iii) Methods such as:
A – Trams/trains mean people do not take their private cars into urban areas/can carry more people than a car/eases traffic jams;
B – Park and Ride means cars do not have to enter CBD/bus can carry more people than a car/people have to use bus/leave cars outside CBD;
C – traffic free zone/people have to walk/cars are not allowed;

3 @ 1 [3]

(iv) Ideas such as:
traffic congestion wastes peoples' time;
longer journey to work/school;
more chance of accidents/reduces danger;
congestion leads to stress/road rage;
wasted fuel;
reduces atmospheric pollution;
reduces noise pollution;
reduced cost for businesses delivering goods;
etc ;

N.B: Candidates can refer to benefits of reduction or problems e.g. reduces time wasted or congestion wastes time.

4 @ 1 [4]

(b) (i) There are many residential areas surrounding the CBD/It is in an area where lots of people live;
people need to travel to CBD for work/school/shops/business;
many roads lead to this area;
inadequate/narrow roads/incomplete ring road;
delivery vehicles will cause congestion;
people parking will cause congestion;
only one road bridge over river;
not all areas are covered by a railway line/no station in CBD;
Cathedral traffic;
etc

3 @ 1 mark [3]

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(ii) No mark for choice of option.
Marks to be awarded for reasoning.
E.g. Option 1:
Restricting the number of vehicles will result in less hold ups;
as roads will be able to cope with smaller numbers;
preventing lorries in town centre will stop roads being blocked;
as narrow roads are not designed for large vehicles;
Rejected B as people will still take their cars if they are allowed to even if public transportis improved;
as it is more convenient/quicker than public transport (dev)
Rejected C as ring road will not solve congestion caused
By people going to CBD;
As it only diverts away through traffic (dev).

E.g. Option 2:
Providing more buses/trains; means there will be less traffic on the roads (dev);
So there will be less hold ups (dev);
Roads will cope with smaller numbers of cars;
Bus lanes can be given priority;
So people will be on time for work (dev);
Extending the railway line to all surrounding areas;
Will serve more people so less cars (dev);

E.g. Option 3:
Building a ring road around the city will eliminate through traffic;
So there will be less cars on the road (dev);
e.g. people travelling from Malvern to Abergavenny won't have to travel through the city (dev);

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail on attempts to solve problem of inadequate housing.

Level 2 (4–6 marks)
Uses named example (must be smaller than a country).
More developed statements on attempts to solve problem of inadequate housing.

Level 3 (7 marks)
Uses named example (eg Rio de Janeiro).
Developed references to attempts to solve problems of inadequate housing including some place specific reference.

Candidates may refer to ideas such as:
Building materials
Housing developments
Relocation
New towns/cities
Infrastructure
etc [7]

[Total 25 marks]

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3 (a) (i) Speed (of flow of the river)

1 mark [1]

(ii) A. particles eroded/erosion/saltation/suspension/particles transported/transport/attrition/hydraulic action/abrasion;

B. particles deposited/deposition/particles dropped;

2 @ 1 mark [2]

(iii) Hydraulic action;
corrasion/abrasion;
corrosion
attrition.

3 @ 1 mark [3]

(iv) Materials being picked up by water and bounced along the bed/series of hops (Saltation);
Materials dissolved in the water (Solution)/chemicals destroy/dissolve materials;
Materials carried within the water (Suspension)/without touching river bed/floats within the water;
Materials being pushed/rolled along bed (traction);

4 @ 1 mark [4]

(b) (i) Features should be evident from photographic evidence. Ideas such as:
steep outer bank/river cliff;
gentle inner bank/slip off slope/river beach;
deep water on outside;
shallow water on inside;
deposited materials/pebbles on inside;
cliff bank is eroded;
etc

3 @ 1 mark [3]

(ii) Ideas such as:
Water flows quickly round outer bend;
Lateral erosion;
Erodes outer banks/bed;
Deepens channel;
Undercuts bank;
Collapse of bank to produce steep slope (dev);
Water flows slowly round inner bend;
Loses energy and deposits load (dev);
Creates slip off slope (dev);
etc

5 @ 1 mark or development [5]

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(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail describing the impacts of a river flood.

Level 2 (4–6 marks)

Uses named example
More developed statements describing the impacts of a river flood.

Level 3 (7 marks)

Uses named example (eg Limpopo in Mozambique).
Comprehensive and accurate statements describing the impacts of a river flood, including some place specific reference.

Candidates may refer to ideas such as:
Deaths
Housing
Farmland
Food
Services
Soil Fertility
Transport
etc.

Place specific detail can include names of features/areas/date/statistics within the selected case study. [7]

[Total: 25]

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4 (a) (i) 60

N.B: allow tolerance of +/– 5

1 mark [1]

(ii) A. 500 000 – 1 million;
B. 50 000 – 499 000

2 @ 1 mark [2]

(iii) Ideas such as:
deforestation is a source of wealth/income/trees used for furniture/building/construction;
many areas are too large to patrol;
exploitation by multinationals/MEDC's;
pressure on resources/land/for plantations (burning forest);
lack of government legislation/weak government control/corrupt government;
need trees for cooking/fuel/charcoal; etc

3 @ 1 mark [3]

(iv) Ideas such as:
Rubber tapping;
Collecting fruits/nuts;
Restrict logging;
Log one species rather than clear cutting/selective logging;
Replace every tree chopped down by planting a new one/replant trees removed/re-afforestation;
Ecotourism;
Conservation areas;
Creation of tribal reserves;
Helilogging;
Small scale hunting by indigenous tribes;
etc

4 @ 1 mark [4]

(b) (i) Ideas such as:
less oxygen;
less precipitation/moisture in air;
less evapotranspiration/evaporation/transpiration;
more carbon dioxide;
etc.

3 @ 1 mark [3]

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(ii) Ideas such as:
there will be less interception/protection by vegetation;
so rain falls directly on to the ground (dev);
therefore soils will be less well drained (dev);
compaction of topsoil occurs;
therefore less infiltration/water flows overland (dev);
soil erosion may occur;
as soil is not held together by roots (dev);
soil settles on river bed/displaces water;
lag time is short;
less trees to absorb water via roots;
etc.

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail describing and/or explaining the main features of tropical rainforest climates.

Level 2 (4–6 marks)

Uses named example
More developed statements describing and/or explaining the main features of tropical rainforest climates.
Level 3 (7 marks)

Uses named example (eg Amazon Rainforest).
Comprehensive and accurate statements describing and/or explaining the main features of rainforest climates, including some place specific reference.

Candidates may refer to ideas such as:
Temperature
Precipitation
Convection
Evapotranspiration
Condensation
Ascending air
etc.

Place Specific reference can be names of settlements/rivers/features within the selected area. [7]

[Total: 25]

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5 (a) (i) Fukuoka/Osaka-Kobe/Nagoya/Tokyo

1 mark [1]

(ii) 70% of manufacturing output/industry;
50% of public companies have headquarters there;
85% of foreign financial institutions are there;

N.B: or appropriate interpretation of statistics e.g. as a fraction.

2 @ 1 mark [2]

(iii) Ideas such as:
Close to coast/ports;
easy to obtain imports/dispatch exports;
Flat land/interior is mountainous;
Good rail communications/there are 3 high speed rail lines;
Large workforce/market/65% of Japans' population live there; etc.

3 @ 1 mark [3]

(iv) Ideas such as:
overcrowding of residential areas;
lack of open space/green areas;
congestion on roads;
atmospheric/noise/water/visual pollution (up to max. 2);
uneven development within country;
industries unable to expand;
forces cost of land up/high cost of land;
etc

4 @ 1 mark [4]

(b) (i) A. Market/workforce;
B. high technology research/well qualified workers;
C. Transport of raw materials/finished products/workforce;

3 @ 1 mark [3]

(ii) Ideas such as:
creation of jobs;
therefore stimulus to local economy/economic growth (dev);
more money to spend on local businesses;
creating multiplier effect (dev);
investment in local infrastructure;
such as transport network (dev);
improves standard of living;
etc

5 @ 1 mark or development [5]

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(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail explaining causes of global warming.

Level 2 (4–6 marks)

More developed statements explaining causes of global warming.

Level 3 (7 marks)

Comprehensive and accurate statements explaining causes of global warming, including labelled diagram with at least 2 separate ideas on diagram e.g. causes and trapping heat idea.

Candidates may refer to ideas such as:
Industry
Fossil fuels
Greenhouse gases
Deforestation
Sun's rays let through
Heat trapped/build up heat
Radiation
Etc. [7]

[TOTAL: 23]

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6 (a) (i) Farmer/miner/fishing/forestry etc

1 mark [1]

(ii) Countries with low GDP have high percentage in primary sector (or vice versa)/negative correlation (1 mark);
Use of two pairs of statistics to illustrate this (2nd mark) e.g. $36000 GDP for Austria and only 6% employed in primary industry but in Nepal there is only $1500 GDP but there is 75% employed in primary industry.

Other statistics are: Poland $18500 GDP and 17% primary
Turkey $11500 GDP and 27% primary
Thailand $7500 GDP and 43% primary

2 @ 1 mark [2]

(iii) Ideas such as:
many people work in agriculture;
not much mechanization;
many people lack education/skills/jobs are less skilled;
lack of factories/services;
many subsistence farmers etc

3 @ 1 mark [3]

(iv) Ideas such as:
Good service provision (or examples);
Companies involved earn high revenues/foreign currency;
Much foreign investment/investment from multinationals;
These services (e.g. banks) support other industry;
Many educated people/skilled people;
etc.

4 @ 1 mark [4]

(b) (i) Attractions such as:
wildlife/safari/see animals in natural habitat/see elephants/fauna;
mountain scenery;
traditional cultures/artefacts/crafts/housing;
golf course;
etc.

3 @ 1 mark [3]

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(ii) Ideas such as:
Building/improvement of roads/railways;
For tourist use can be used by locals (dev);
Building/extending airports;
Gives residents better access to other countries (dev);
Water supply network developed;
So people can use piped water for their homes (dev);
Electricity grid extended;
So people can use it in their homes (dev)
Money used to invest in healthcare; so improves life expectancy (dev);
Money used to invest in education; so gain better qualifications for higher paid jobs (dev);
etc

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail describing impact of tourism on natural environment.

Level 2 (4–6 marks)

Uses named example
More developed statements describing impact of tourism on natural environment.

Level 3 (7 marks)

Uses named example (eg Algarve).
Comprehensive and accurate statements describing **impact** of tourism on natural environment, including some place specific reference.

Candidates may refer to ideas such as:
Animals
Vegetation
Coral
Visual impact
Air pollution
Water pollution
Etc.

Named example should be smaller than a country but if a small country is named such as Jamaica that is acceptable.

N.B: impacts can be positive or negative.

Place specific detail can be names of features/places/attractions within the selected example. [7]

[Total: 25]

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