Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

GEOGRAPHY	**0460/11**
Paper 1	**October/November 2016**

MARK SCHEME

Maximum Mark: 75

Published

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1 (a) (i) South Korea….China….Italy
Correct order needed   [1 mark]   [1]

(ii) Decrease = Japan/Germany/Poland/Russia
Highest rate of growth = India   [2 @ 1 mark]   [2]

(iii) Ideas such as:
- No abortion available;
- little availability of/people don't use contraception/family planning;
- not educated re. contraception/impact of population growth/family planning;
- not likely to be able to afford contraception;
- want children to work/earn money (or example);
- want children to look after parents in old age;
- want children to look after younger siblings/do domestic chores;
- no government policy to reduce family size;
- have large families due to tradition/status;
- have large families due to religious influences;
- high infant mortality rate/have greater number of children in the
- hope some will survive;
- polygamy;
- women marry at young age;
- women do not have careers;
- keep having children until boys is born to carry on family name;
- desire for girl children to obtain dowry money
  etc.   [3 @ 1 mark]   [3]

(iv) Ideas such as:
- people do not have enough resources/raw materials;
- lack of fuel/power (or example such as electricity);
- lack of work;
- poverty/people cannot afford (specified items, e.g. education, houses, etc.);
- inadequate food supplies/starvation/famine/lack of space for agriculture;
- poor access to education;
- poor access to health care/lack of hospitals;
- high levels of disease/high death rates/low life expectancy/high IMR;
- lack of/overcrowded housing/not enough space for housing/people live
  in/growth of squatter settlements;
- atmospheric/water pollution;
- inadequate water supply;
- lack of sanitation,
- overcultivation;
- overgrazing;
- disputes over agricultural land/places to live;
- traffic congestion;
  etc.   [4 @ 1 mark]   [4]

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(b) (i) Increasing proportion of 65+/old dependents/old people/people living longer;
Decreasing proportion of 0–19/children/young people/young dependents;
Increasing proportion of 20–64/economically active/adults;
Supporting statistics, e.g. 5% over 65 in 1950 likely to be 16% in 2050
/3X greater percentage, etc.
(1 mark MAX – Reserved)
(NB 1% tolerance on statistics)   [3 @ 1 mark]   [3]

(ii) Ideas such as:
- lowering of death rates/increase of life expectancy;
- improvements in health (medical) care/more doctors/more hospitals/better equipment (technology) used in hospitals;
- reduction of diseases/inoculation/medicines/cures for illnesses;
- improved sanitation;
- better water supplies;
- better diet/food supplies;
- healthy lifestyle/exercise;
- education about health/hygiene/diet;
- support for elderly/old people's homes;
- availability of pensions;
- lowering of birth rates/people have less children;

reasons for lower birth rate to MAX 1, etc.
(5 @ 1 mark) or development   [5]

(c) Levels marking

Level 1   [1–3 marks]
Statements including limited detail which evaluate the population policy.

Level 2   [4–6 marks]
Uses named example.
More developed statements which evaluate the population policy.
(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:
– changes in birth rates
– consequences of falling/rising birth rates
– imbalance in proportions of male/female
– migration, etc.

Place specific reference is likely to consist of:
Named parts of the chosen country/locational detail,
Specific details of the policy
Population data, etc.
NB The population policy could relate to natural population change or migration.   [7]

[Total: 25 marks]

2 (a) (i) Area close to the CBD/close to the centre of the city   [1 mark]   [1]

     (ii) long and straight;
           right angles to each other;
           parallel
           grid pattern/rectangular/square, etc.   [2 @ 1 mark]   [2]

    (iii) Ideas such as:
- to improve living conditions/quality of life/standard of living;
- areas are old/to modernise housing/build new houses/we need more houses/are derelict;
- properties lack amenities;
- factories/industries have closed down/are unoccupied;
- to attract/develop new business opportunities/industrial estates/retail parks/factories;
- to create employment (jobs)/people need jobs;
- new road building/inner ring roads being built/to improve traffic flow /building an urban expressway;
- some land is currently not being used/wasted, etc.   [3 @ 1 mark]   [3]

  (b) (i) A = Suburbs
          B = CBD
          C = Inner city   [3 @ 1 mark]   [3]

     (ii) One mark per appropriate description of **land use** based on photograph selected with credit for development;

       Photograph A:
           housing/apartments;
           High rise buildings;
           Open space/sports field;
           Modern buildings, etc.

       Photograph B:
           High rise buildings;
           High density land use/crowded;
           Offices;
           Especially on upper floors;
           Shops/retail;
           High order services;
           Roads;
           Restaurants;
           Apartments;
           Hotels;
           banks, etc.

       Photograph C:
           High density;
           Old buildings;
           Housing/apartments;
           Offices;
           3 storeys, etc.   [4 @ 1 mark]   [4]

(iii) Ideas such as:
- variation in the cost of land;
- land will be higher cost in CBD;
- variation in accessibility;
- CBD will be most accessible/focus of roads;
- Relief of land;
- Historical development of urban area
  etc.

(5 @ 1 mark) or development   [5]

(c) Levels marking

Level 1   [1–3 marks]
Statements including limited detail describe the effects of urban sprawl.

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

More developed statements which describe the effects of urban sprawl.

(**NB** Max 5 if no named or inappropriate example)

Level 3   [7 marks]
Uses named example.
Comprehensive and accurate statements with some place specific reference.

Content Guide:
Answers are likely to refer to:
Deforestation/loss of vegetation/loss of farmland,
Impacts on ecosystems/food chains,
Traffic congestion,
Atmospheric pollution,
Water pollution.
Noise pollution,
Visual pollution.
House prices/land values increase,
Growth of squatter settlements, etc.

Place specific reference is likely to consist of:
Locational details,
Specific details of transport/communication network,
Named businesses, etc.   [7]

[Total: 25 marks]

3 (a) (i) A = Strato-volcano B = Shield volcano

NB Both needed for 1 mark   [1 mark]   [1]

(ii) Ideas such as:
- B is higher/A is lower (or statistics);
- B is wider/A is narrower (or statistics);
- A has different layers but B does not;
- A has 2 vents B has one;
- B is more gently sloping/A is steeper, etc.

NB Points need to be comparative.   [2 @ 1 mark]   [2]

(iii) X = Vent
Y = Magma Chamber
Z = Crater   [3 @ 1 mark]   [3]

(iv) Ideas such as:
- scenic beauty/views;
- tourist industry (examples of jobs in tourist industry);
- fertile soils/high yields of crops;
- geothermal power/'free' hot water;
- minerals/mining or example;
- building materials;
- hot springs;
- religious/cultural significance, etc.;   [4 @ 1 mark]   [4]

(b) (i) Ideas such as:
- circle/ring;
- around Pacific Ocean;
- linear/in lines;
- along west of Americas;
- east of Asia;
- north of Australasia;
- isolated volcanoes (2 volcanoes) in center of Pacific Ocean, etc.

                                                                                              [3 @ 1 mark]   [3]

(ii) Ideas such as:
- along plate boundaries/between plates/edge of plates/where plates
- meet;
- which are lines of weakness;
- convergence of plates/plates move towards each other;
- subduction/one plate sinks;
- as oceanic crust is more dense (dev);
- destruction of crust/magma created;
- build up of magma;
- creating pressure (dev)
- release of magma;
- through cracks in crust (dev);
- hot spots (accept if related to Hawaii or similar, 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 the impacts of an earthquake.

Level 2   [4–6 marks]
Uses named example.
More developed statements which describe the impacts of an earthquake.

(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:
deaths,
injuries,
destruction of property,
fires,
damage to infrastructure,
economic impacts, etc.

Place specific reference is likely to consist of:
Locational details,
Date/Richter scale measurement,
Details of named parts of the area,
Statistical information, etc.   [7]

[Total: 25 marks]

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4 (a) (i) Meander [1 mark] [1]

(ii) Ideas such as:
- gentle slope;
- rocks/pebbles/deposits;
- inside bend, etc. [2 @ 1 mark] [2]

(iii) Ideas such as:
- speed of flow is slow/reduced/less energy;
- deposition of materials
- insufficient energy to move them;
- accumulation over time, etc. [3 @ 1 mark] [3]

(iv) e.g. **flooding**:
reservoirs/dams upstream;
increase height of banks/raise levees/build artificial levees;
afforestation/reduce deforestation;
overflow channels/spillway;
straighten channel;
dredging;
widening river;
warning systems/monitoring;
land zoning, etc.

erosion:
strengthen banks/add hard rocks to banks/place rock barriers
in front of banks;
use gabions;
concrete river channel, etc.

(4 @ 1 mark) with 1 reserve on each section [4]

(b) (i) Ideas such as:
- lower course is wider/upper is narrower;
- lower course has gentler slopes/upper steeper slopes;
- upper course is deeper;
- upper course is more V shaped;
- lower course has flood plain but upper does not, etc.

NB Points made need to be comparative [3 @ 1 mark] [3]

(ii) Explanation of formation of waterfall:
horizontal hard rock layer/hard rock on top of soft;
erosion of soft rock;
named erosional process (MAX 1)
formation of plunge pool;
undercutting/hard rock not supported;
collapse of hard rock;
retreat of waterfall;
gorge formation, etc.

NB Credit marks on diagram labels or in written text but no
double credit.

(5 @ 1 mark) or development [5]

(c) Levels marking

Level 1 [1–3 marks]
Statements including limited detail which describe opportunities provided for people by a
river.

Level 2 [4–6 marks]
Uses named example.
More developed statements which describe opportunities provided for people by a river.

(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:
agriculture,
fishing,
transportation,
water supply,
power supplies,
tourism, etc.

Place specific reference is likely to consist of:
Locational details;
Specific locations along the river, etc. [7]

[Total: 25 marks]

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5 **(a)** **(i)** Human Development Index [1 mark] [1]

(ii) Higher generally in North America/high North America but
low/medium in Africa;
more varied in Africa [2 @ 1 mark] [2]

(iii) Ideas such as:
- It takes into account a variety of factors/it is a composite index/uses more than one indicator/provides a general/overall indication of development/it is better than just using income;
- Takes into account life expectancy/education/mean years of schooling;
- Produces an index of 0 to 1/easy to carry out comparisons between countries/change over time

[3 @ 1 mark] [3]

(iv) Ideas such as:
- specific references to variation in climate or example;
- variations in relief;
- variations in soil fertility;
- presence/absence of rivers/water supplies/drought;
- communications/accessibility/transport links;
- impacts of historical development/length of time development has
- been occurring,
- impacts of colonisation;
- presence/absence of raw materials/resources (or example);
- accessibility/presence of ports/landlocked;
- government policies/political system;
- corruption;
- varying levels of education/skills;
- trading policy/free trade;
- AIDs;
- investment/aid from abroad/charities;
- presence of TNCs;
- war/unrest;
- degree of reliance on primary production;
- development of a specific industry (e.g. tourism, mining,
- commercial agriculture, etc.)

[4 @ 1 mark] [4]

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(b) (i) Ideas such as:
- positive relationship/life expectancy increases with GNP/low/high life expectancy = low/high GNP;
- statistics to illustrate relationship – 2 pairs required;
- relationship is not exact/anomaly;
- e.g. over 10 000 there is little if any relationship, etc.

NB Reserve 1 marks for statistics   [3 @ 1 mark]   [3]

(ii) Ideas such as:
- high GNP will result in more investment in health care;
- and people will be able to afford medicines (dev);
- in countries with high GNP people will be able to afford enough food/good diet;
- so less likely to suffer malnutrition (dev)
- in low GNP countries many people have poor sanitation;
- in low GNP countries many people have water supply;
- so many die from water borne diseases (dev);
- high GNP countries are able to pay pensions to elderly;
- in high GNP countries education is provided about health
- care/diet, etc.

(5 @ 1 mark) or development   [5]

(c) Levels marking

<u>Level 1</u>   [1–3 marks]
Statements including limited detail which describe organisation and/or links in a transnational corporation.

<u>Level 2</u>   [4–6 marks]
Uses named example.
More developed statements which describe organisation and/or links in a transnational corporation.
(NB Max 5 if no named or inappropriate example)

<u>Level 3</u>   [7 marks]
Uses named example.
Comprehensive and accurate statements, which describe organisation and links in a transnational corporation, including some place specific reference.

<u>Content Guide:</u>
Answers could refer to:
Inputs,
Processes,
Outputs,
Manufacturing and assembly locations,
Transport network, etc.

<u>Place specific reference is likely to consist of:</u>
Locational details;
Specific details of transnational,
Named settlements, etc.   [7]

[Total: 25 marks]

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6 (a) (i) A condition that results from eating a diet in which <u>nutrients</u> are not enough (or are too much) such that it causes health problems/lack of balanced diet/lack of essential nutrients in the diet, etc.   [1 mark]   [1]

(ii) More malnutrition in Niger/Niger has more areas with large numbers
of cases [accept comparative statistics if totals worked out – 49 000
– 170 000 (BF) 271 000 – 370 000+ (N)] ;
in regions of Niger 40 000–60 000/over 60 000 but only up to 20 000 in
regions of Burkino Faso;
every region in both countries has some malnutrition;
Burkina Faso has a more even spread of malnutrition across
the country   [2 @ 1 mark]   [2]

(iii) Ideas such as:
- drought/desertification/deserts/no nearby rivers to use;
- infertile soils;
- population pressure/growth/large population/overpopulation;
- crop diseases;
- pests/locusts;
- lack of money/poverty/unemployment/can't afford to buy (import) food;
- war;
- cannot afford fertilisers/pesticides;
- lack of cultivable land;
- flooding/tsunami;
- volcanic eruption;
- tropical storms;
- overdependence on cash crops/export market;
- trade sanctions;
- lack of transportation to rural areas, etc.   [3 @ 1 mark]   [3]

(iv) Ideas such as:
- death/starvation/low life expectancy/malnutrition/famine;
- conditions such as marasmus/scurvy/kwashiorkor/rickets, etc.
- people are too weak/cannot work properly;
- vicious circle/cannot escape poverty;
- people cannot resist disease/infection/people easily get disease;
- requirement of international aid;
- appropriate specified crime;
- increased food prices, etc.   [4 @ 1 mark]   [4]

(b) (i) Ideas such as:
- produces soy milk;
- protein rich;
- products made from left over solids/tofu/yogurt/bread;
- less students will go hungry/lack protein/have poor
- nutrition/provides food for children/reduces cases of
- malnutrition;
- they will perform/concentrate better in school, etc.   [3 @ 1 mark]   [3]

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(ii) Ideas such factors such as:
- irrigation;
- use of fertilisers/manure;
- perticides;
- herbicides/weedkillers;
- land reform;
- use of high quality seeds or example, e.g. IR8 rice/GM crops/HYV seeds;
- improve food distribution network;
- improve food storage/refrigeration/grain silos;
- greenhouses/glasshouses;
- aeroponics;
- hydroponics;
- terracing;
- selective breeding;
- international aid;
- trading of goods (or example) in exchange for food;
- mechanisation, etc.

(5 @ 1 mark) or development [5]

(c) Levels marking

Level 1 [1–3 marks]
Statements including limited detail which describe the farming system.

Level 2 [4–6 marks]
Uses named example.
More developed statements which describe the farming system.

(NB Max 5 if no named or inappropriate example)

Level 3 [7 marks]
Uses named example.
Comprehensive and accurate statements, referring to inputs, processes and outputs, including some place specific reference.

Content Guide:
Answers are likely to refer to:
Natural inputs,
Human inputs,
Economic inputs,
Processes,
Outputs,
By-products, etc.

Place specific reference is likely to consist of:
Locational details;
Named settlements, e.g. markets
Specific details about the farm/area,
Statistical information, etc.