

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0460 GEOGRAPHY

0460/13

Paper 1, maximum raw mark 75

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- 1 (a) (i) Population is decreasing/falling/getting less/negative growth rate;
- 1 mark [1]
- (ii) Ideas such as:
- Mainly Northern Hemisphere/north of Equator/north of tropic of cancer;
 - Eastern Europe/Northern Asia;
 - Any example of a country to illustrate the above point to max.1 (e.g. Russia/Poland/South Africa/Cuba/Japan)
- 2 @ 1 mark [2]
- (iii) Ideas such as:
- Generally higher in Africa/lower in South America;
 - Some parts of Africa over 3% but in South America all countries between 1–3%/below 3%;
 - there is more variation in Africa/uneven in Africa/less variation in South America;
 - mainly 1–2% in South America but in Africa varies between less than 0% and over 3%; etc.
- 3 @ 1 mark [3]
- (iv) Reference to factors such as:
- high birth rates;
 - poor access to contraceptives/family planning;
 - lack of education about birth control/family planning;
 - some religions are against contraception;
 - look after elderly parents;
 - early marriage/teenage pregnancy;
 - little education about adverse impacts of large families;
 - large amount of mechanization/of dependence on agriculture/send children to work;
 - high IMR;
 - attitudes towards women;
 - traditional attitudes encourage large families/sign of virility/polygamy/sign of wealth/want a son;
 - many women don't have careers;
 - no government policies;
 - decreasing death rates;
 - improving health care;
 - better care for elderly;
 - pension schemes being set up;
 - improved water supply/sanitation;
 - improved food supply; etc.
- 4 @ 1 mark [4]

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(b) (i) Ideas such as:

- Higher in Brazil than India between 1950 and 1980/earlier on;
- Higher in India than Brazil between 1990 and 2010/later on;
- Steeper increase/decrease in Brazil than India;
- Equal/same in 1986–87;
- Can refer to any one year;
- 1960's India rising but Brazil falling; etc.

3 @ 1 mark

[3]

(ii) Ideas such as;

- birth/population growth rates can be reduced/increased (by policies)/pro/anti-natalist policies;
- if people are given incentives to have children birth rates might increase;
- (e.g. Singapore) more than 3 children policy;
- free places in nurseries;
- if people are given incentives to have small families/one child birth rates might decrease;
- (e.g. China) One Child Policy
- no free education for families with more than one child;
- anti-immigration policies can reduce growth rates;
- policies to attract immigrants (e.g. no need for a VISA) can increase growth rates;
- policies to invest heavily in health care can increase growth rates;

NB: no max. on any policy. May give examples of incentives or disincentives.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe the problems caused by an ageing population

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe the problems caused by an ageing population

(NB Max 5 if no named example)

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements including some place specific reference.

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Content Guide:

Answers are likely to refer to;

- High levels of dependent population,
- Pressure on working population,
- Increased taxation,
- Payment for health care,
- Payment of pensions,
- Lack of workforce,
- Difficult to defend country, etc.

Place specific reference is likely to consist of:

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

[7]

[Total: 25]

2 (a) (i) Plotting on scatter graph

1 mark

[1]

- (ii)**
- Higher the total population more services/lower the total population less services there are;
 - Illustration by reference to two examples (must have 4 sets of figures).

2 @ 1 mark

[2]

- (iii)** Bakers
Church
Convenience store

3 @ 1 mark

[3]

- (iv)** Ideas such as:

- Higher order services will only be found in larger settlements/low order in small settlements/only convenience goods;
- All services need a threshold population/few services because population is small/larger settlement more need or vice versa;
- If there are not enough people/customers living there services will not be profitable;
- Good accessibility will enable people to go elsewhere for some services/attract more people to use services or reverse; e.g. poor accessibility so less services as people can't get to them;
- an isolated area will need to provide as many services as possible, etc.

4 @ 1 mark

[4]

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- (b) (i) Completion of fig. 4B
Deduct 1 mark per error e.g. plotting/shading.

3 @ 1 mark

[3]

- (ii) Ideas such as;

- furniture shops are higher order;
- with a larger sphere of influence (dev.);
- there may be vegetable shops in Stebbach but no furniture shops;
- vegetables purchased locally by many people as people buy them more frequently than furniture;
- as they only buy furniture infrequently it is worth travelling to buy the items (dev.)
- they will be able to compare quality and prices by travelling to other settlements;
- buy vegetables locally as produced locally/so they are fresher; etc.

NB: do not need a comparison and must explain why.

5 @ 1 mark or development

[5]

- (c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe and/or explain the pattern of transport routes.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe and/or explain the pattern of transport routes.
(NB max. 5 if no named example)

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements which describe and explain the pattern of transport routes including some place specific reference.

Content Guide:

Answers are likely to refer to;

- Location within the urban area,
- Radiating from centre,
- Cost of land,
- relief,
- serving different land use zones, etc.

Place specific reference is likely to consist of:
Named parts of the urban area;
locational detail etc.

NB: not a country; must be an urban area.

[7]

[Total: 25]

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3 (a) (i) Flood plain and meander (both needed)

NB: only 1 tick needed.

1 mark [1]

(ii) X = 1 mark (reserved);

- the water is flowing slowly;
- at that point the river does not have enough energy to carry the load; etc.

2 @ 1 mark [2]

(iii) Ideas such as:

- marshy land/buildings would sink;
- sandy soils;
- potential for flooding/no flood defences;
- access will be difficult/no roads/isolated;
- erosion of land on outer bank;
- breeding ground for mosquitoes/Malaria or other e.gs. etc.

3 @ 1 mark [3]

(iv) Ideas such as:

- erosion on outer bends of meander;
- neck narrows;
- eventually cuts through/water flows straight across;
- possibly during flooding;
- former meander sealed by deposition; etc.

NB: credit diagram labels no double credit.

4 @ 1 mark [4]

(b) (i) A = Nature Reserve/pasture

B = Sports field/pasture/nature reserve

C = Cheap housing for rent/high cost housing for private ownership/factory/hospital/old people's home; etc.

NB: no double credit for answers in A and B

3 @ 1 mark [3]

Page 7	Mark Scheme	Syllabus	Paper
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- (ii) Ideas such as;
- a nature reserve would not be a risky use of the area most likely to flood;
 - as people`s lives would not be threatened when it floods (dev.);
 - flooding could make the habitats more diverse;
 - no damage could be caused to economy by flooding of a nature reserve/no rebuilding costs;
 - Zone B will flood every 10 years so it does not make sense to build there;
 - it will be inconvenient for sports field to be flooded but not life threatening;
 - sports field could not be located in Zone A as it would be poorly drained/matches would have to be postponed regularly (dev.);
 - housing/factory/hospital/old people`s home are unlikely to be affected by floods in Zone C;
 - which will reduce potential damage/disruption/loss of life (dev.)
 - pasture in A as fertile land for grass/cattle can be moved if river floods/silt makes land fertile for pasture; etc.

NB: only credit explanation of land uses from previous question e.g. if state cheap housing in B then incorrect so no reasoning can be awarded for that idea.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which explain the formation of a waterfall.

Level 2 (4–6 marks)

More developed statements which explain the formation of a waterfall.

Level 3 (7 marks)

Comprehensive and accurate statements including a fully labelled diagram.

Content Guide:

Answers are likely to refer to;

- Hardness of rock,
- Undercutting,
- Splashback,
- Formation of plunge pool,
- Collapse of overhang,
- Waterfall retreat/gorge formation;
- Process repeats;
- Erosional processes e.g. hydraulic action, abrasion; etc.

[7]

[Total: 25]

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4 (a) (i) The disintegration/breaking up of rock **in situ** (or idea that material is not removed)

1 mark [1]

- (ii)
- Because it requires alternating high and low temperatures/tropical deserts have high daytime and low night temperatures/high diurnal range;
 - so the rock expands and contracts;
 - There is not enough water in a desert for freeze thaw;
 - There are not likely to be many plants growing in a tropical desert so biological is not very likely; etc.

2 @ 1 mark [2]

(iii) Ideas such as:

- a seed/small plant/sapling enters/starts growing in a crack in the rock;
- roots penetrate into the crack;
- and force it further apart/exert pressure/enlarge crack;
- eventually splitting it/breaking bits off; etc.

3 @ 1 mark [3]

(iv) Ideas such as:

- water enters cracks in rocks;
- temperatures fall/below 0C at night;
- water freezes/ice forms;
- volume increases/expands;
- puts pressure on rock/crack widens;
- melting in daytime allows more water to enter;
- eventually splitting it/breaking bits off ; etc.

4 @ 1 mark [4]

(b) (i) Ideas such as:

- bare rock outcrop;
- vertical/very steep slope/cliff;
- flat top;
- scree/broken rock at base/gravel;
- few trees/scattered vegetation/mainly grass;
- cracks/joints/pot holes;
- tree growing out of crack;
- layers/sedimentary; etc.

3 @ 1 mark [3]

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- (ii) Ideas such as;
- limestone is eroded by carbonation/ caused by carbonation;
 - rainwater reacts with carbon dioxide;
 - to produce (carbonic) acid/acid rain/acids in rain/water's acidity;
 - which dissolves limestone/acid reacts with the limestone;
 - as calcium carbonate reacts with acidic water (dev.);
 - washed away in solution;
 - water passes through joints/bedding planes;
 - widening them as acid reacts with the rock; etc.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail which describe the impacts of a drought on the people.

Level 2 (4–6 marks)

Uses named example.

More developed statements which describe the impacts of a drought on the people.

(NB max. 5 if no named example)

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate statements which describe the impacts of a drought on the people and include place specific information.

Content Guide:

Answers are likely to refer to;

- Death,
- Famine/food shortages,
- Malnutrition/deficiency diseases,
- Loss of livestock,
- Bans on use of hose pipes; etc.

[7]

[Total: 25]

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5 (a) (i) C...E...D (Correct order needed) or correct names

1 mark

[1]

(ii) Ideas such as:

- employment/jobs/earn money;
- so can people can buy better food/send their children to school/better housing;
- improved service provision or an example (healthcare; education)
- more money circulating in area/multiplier effect;
- development of transport network;
- development of infrastructure/electricity/water supply;
- can use products from the mine/materials for building;
- can export/sell products from the mine;
- Learn new skills; etc.

2 @ 1 mark

[2]

(iii) Ideas such as:

- loss of farmland;
- noisy/noise disturbs sleep/no peace and quiet;
- more traffic;
- prices rise;
- loss of culture;
- rude/badly behaved/drunken/racist tourists;
- litter;
- water resources used;
- visual pollution;
- overcrowded transport/shopping areas; etc.

3 @ 1 mark

[3]

(iv) Ideas such as:

- atmospheric pollution/smoke from factory;
- gases such as carbon dioxide/greenhouse gases;
- pollution of rivers/groundwater/water pollution;
- clearance of natural vegetation/plants are killed;
- loss of habitat;
- impact on fauna/animals die/fish die;
- impact on ecosystems/food chains/nutrient cycle;
- global warming;
- acid rain;
- noise disturbs animals; etc.

4 @ 1 mark

[4]

Page 11	Mark Scheme	Syllabus	Paper
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- (b) (i) Ideas such as:
- More primary in Nepal/less primary in Brazil/or statistics;
 - More secondary in Brazil/less secondary in Nepal/or statistics;
 - More tertiary in Brazil/less tertiary in Nepal/or statistics;
 - Mainly tertiary in Brazil/mainly primary in Nepal; etc.

3 @ 1 mark

[3]

- (ii) Ideas such as in Brazil:
- less people work in subsistence agriculture/produce their own food;
 - less mining/less raw materials/raw materials exhausted;
 - there is more mechanization of farming;
 - more people have education/skills for secondary/tertiary employment;
 - more development of factories/services or examples of hotels (dev.)/can't afford to build factories in Nepal;
 - more technology in Brazil;
 - better developed infrastructure allow development of factories in Brazil; etc.

NB: answer needs the comparison. Can link discrete accounts/descriptions. Could do vice versa.

5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail describing and/or explaining recent changes in employment structure

Level 2 (4–6 marks)

Uses named example

More developed statements describing and/or explaining recent changes in employment structure

NB max. 5 marks with no named example or inappropriate historical example such as Industrial Revolution in UK.

Level 3 (7 marks)

Uses named example

Comprehensive and accurate describing and/or explaining recent changes in employment structure including some place specific reference.

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There will be likely reference to ideas such as:

- Mechanization
- Education
- Skills Development
- Investment
- Multinationals
- Demand for services
- Reasons for moving into a different sector (e.g. better paid jobs)

NB: must show change.

[7]

[Total: 25]

- 6 (a) (i)** Cost of/wages for/payment for workers/cost of the work done/cost to pay the employees/staff.

1 mark

[1]

- (ii)** Women`s clothing...iron and steel...flour milling

2 marks for all 3 correct

1 mark for 1 or 2 correct

2 @ 1 mark

[2]

- (iii)** Ideas such as:

- some industries are less mechanized than others or vice versa;
- cannot be completely automated;
- some jobs have to be done by hand/some jobs are more labour intensive/some require more physical effort;
- some jobs/hand painted porcelain cannot be done by machinery/or other examples;
- some jobs are higher paid/higher salaries/highly skilled; etc.

3 @ 1 mark

[3]

- (iv)** Factors such as:

- labour costs;
- availability of workers;
- skills availability;
- location of universities/research establishments;
- government policy (or example);
- location of large/growing markets;
- close to motorway network;
- near to/access to airports/ports/good access for imports/exports;
- near to component manufacturers;
- near to other high tech industries/agglomeration;
- near to pleasant environment;
- large area of/flat/cheap land; etc.

4 @ 1 mark

[4]

Page 13	Mark Scheme	Syllabus	Paper
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- (b) (i) • Inputs: resources/things needed in order for production to take place;
• Processes: what is done to the inputs to turn them into outputs/create a product;
• Outputs: the products which are produced/what they sell;

3 @ 1 mark [3]

- (ii) Credit identification of inputs, processes and outputs as appropriate to choice of manufacturing/processing industry chosen.

1 mark reserved for each of input/process/output. No mark awarded for choice.

5 @ 1 mark [5]

(c) Levels marking

Level 1 (1–3 marks)

Statements including limited detail describing and/or explaining inputs of a farming system.

Level 2 (4–6 marks)

Uses named example

More developed statements describing and/or explaining inputs of chosen farming system.

(NB max. 5 marks with no named example)

Level 3 (7 marks)

Uses named example.

Comprehensive and accurate answer describing and explaining inputs of chosen farming system, including some place specific reference.

There will be likely reference to ideas such as:

- Human inputs
- soils
- land
- Government incentives
- Climate
- relief
- fertilizers etc.

[7]

[Total: 25]