#### **CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**Cambridge International General Certificate of Secondary Education** 

## MARK SCHEME for the October/November 2015 series

# 0460 GEOGRAPHY

0460/11

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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Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

**1** (a) (i) 3.5% (allow 3.3–3.7)

[1 mark] **[1]** 

- (ii) A. Larger % in Barbados at 60/65/70/75+ (old dependents/people/elderly)/more older people/higher percentage/smaller % at 60/65/70/75+ in Jamaica;
  - Barbados pyramid has wider apex/top to pyramid/Jamaica has narrower apex; etc.
  - **B.** Smaller percentage of population in younger age groups in Barbados/more young people/0–4's/more children/infants/babies young dependents in Jamaica/any relevant comparative statistics to indicate smaller/larger age group in appropriate country e.g. 9.5 compared to 6.8(%);
  - Wider base to Jamaica pyramid; etc.

[2 @ 1 mark] [2]

- (iii) Candidates should compare here though we should link together two discrete accounts. Ideas such as:
  - Greater (proportion) of/more/larger 30 to 59 in Barbados/smaller proportion of 30 to 59 in Jamaica;
  - About 40% of population of Barbados compared with about 31% of that of Jamaica;
  - Largest percentage is at 35 to 39 in Barbados but 30 to 34 in Jamaica;
  - 35 to 39 in Barbados is 8.5% but 7% in Jamaica;
  - Steady decline in Jamaica but Barbados increases and decreases; etc.

**NB:** Must compare both male and female bars not just one.

[3 @ 1 mark] [3]

- (iv) Reference to factors such as:
  - lowering of birth rates;
  - greater access to contraceptives/family planning;
  - more education about birth control/family planning;
  - more education about adverse impacts of large families;
  - more of mechanization of/less dependence on agriculture;
  - reduced IMR;
  - Impacts of government policy/or examples;
  - attitudes towards women change;
  - women want a career before children;
  - desire for material possessions;
  - society has become more secular/less religious;
  - traditions/culture less important/LEDC's adapt western cultures;
  - later marriages;
  - death rates reduced/life expectancy increased;
  - better health care;
  - better care for elderly;
  - pension schemes are set up;
  - more cures for diseases or specified examples;
  - improved water supply/sanitation;
  - improved food supply; etc.

[4 @ 1 mark] **[4]** 

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

## (b) (i) Ideas such as:

- sterilisation available;
- <u>free</u> contraceptives issued;
- <u>compulsory</u> family planning (for newly married couples); [3 @ 1 mark] [3]

## (ii) Ideas such as;

- people are given benefits/incentives to have children;
- more than 3 children policy;
- free places in nurseries/schools/education;
- paid maternity/paternity leave;
- child tax credits/family allowance payments/lower taxes for big families;
- policies to invest heavily in health care can reduce death rates;
- building of more hospitals/clinics; (dev)
- free healthcare for children/large families;
- propaganda/advertising about importance of large families;
- ban abortions/ban sterilisation;
- provision of housing for large families;
- taxes on condoms/contraceptives; etc.
  [5 @ 1 mark or development]

Page 4	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

<u>Level 1</u> [1–3 marks]

Statements including limited detail which describe the problems and/or benefits caused by an ageing population

<u>Level 2</u> [4–6 marks]

Uses named example.

More developed statements which describe the problems and/or benefits caused by an ageing population

(**NB**: Max 5 if no named example)

<u>Level 3</u> [7 marks]

Uses named example.

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

Comprehensive and accurate statements including some place specific reference.

#### 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;
- Wisdom of elderly;
- Assistance with child care from extended family
- Jobs created in care-homes/working for elderly; etc.

Place specific reference is likely to consist of:

Named parts of the chosen country/locational detail,

Population data etc.

[Total: 25 marks]

Page 5	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

**2 (a) (i)** 20 [1 mark] **[1]** 

(ii) Ideas such as:

- It is close/it is near to Hanoi/less expensive/cheaper/or vice versa from Central Highlands/Central Highlands too far away;
- People are more likely to migrate to Ho Chi Minh City from Central Highlands;
- More people live in Red River Delta Region/less in Central Highlands;
- There could be more poverty/or reference to any push factor in either area e.g. less jobs in Red River Delta/poor soil in Red River Delta region than in Central Highlands;
- Risk of flooding in Red River Delta/tropical storms; etc.

**NB:** Doesn't have to be comparative

[2 @ 1 mark] [2]

- (iii) Must be pull factors such as:
  - jobs/work/earn money/higher wages;
  - hospitals/better health care;
  - education/schools/universities;
  - bright lights/entertainment;
  - better water supplies/sanitation;
  - more food supplies;
  - better electricity supplies; etc.

[3 @ 1 mark] [3]

(iv) Ideas such as:

- Describe migrants are generally in <u>economically active sector/18 to 50(or variant)</u>;
- Explain as they are seeking work;
- or looking for entertainment/bright lights
- Describe greater percentage of male than female;
- Explain males more likely to be seeking employment than females:
- Need to earn money to support family/send remittances back home; etc.

[4 @ 1 mark] **[4]** 

- (b) (i) Ideas such as:
  - more rapid growth in Hanoi/less in Melbourne;
  - allow tolerance of 2.8–3.2 m to 4.7–5.1 m Melbourne, compared with 1.4–1.8 m to 7.1–7.5 m Hanoi (must give 4 stats);
  - increased by 1.5–2.3 m in Melbourne by 5.3 6.1 m in Hanoi depending upon which statistics have been used previously;
  - 3× increase in Hanoi compared to 1.5 times in Melbourne;
  - More people live in Hanoi in 2015 but in 1974 more lived in Melbourne; etc.

**NB:** Must be comparative.

[3 @ 1 mark] [3]

Page 6	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

## (ii) Problems such as:

- Lack of jobs/unemployment;
- (traffic) congestion/lots of traffic;
- Cost of traffic control schemes (dev);
- Need to build new roads (dev);
- air pollution/exhaust fumes;
- lack of housing/need to build more houses;
- poverty/deprivation;
- high crime rates/violence; (dev)
- difficult to provide schools;
- hospitals/clinics/healthcare;
- shortages of pressure on infrastructure/water supplies/electricity;
- overcrowding of public transport;
- lack of food supplies/famine/starvation;
- need to build on rural land/all open space used up/less space for agriculture;
- growth of squatter settlements/shanty towns;
- more need for rubbish disposal/litter; etc. [5 @ 1 mark or development] [5]

Page 7	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

<u>Level 1</u> [1–3 marks]

Statements including limited detail on attempts to solve the chosen urban problem.

<u>Level 2</u> [4–6 marks]

Uses named example

More developed statements on attempts to solve the chosen urban problem.

**NB:** MAX 5 if no named example or inappropriate example. Accept conurbation, city, town or part of an urban area. Max 5 if no obvious link between problem and solutions. MAX 5 for problem that is "pollution" or "lack of space".

<u>Level 3</u> [7 marks]

Uses named example. More developed statements on attempts to solve the chosen urban problem, including some place specific reference.

Problems are likely to include:

- Unemployment
- Housing/lack of or poor condition
- Traffic
- Crime
- Specified pollution
- Shanty towns
- Natural disasters
- Poor healthcare
- Education
- Water supply
- Sanitation
- Food supplies

**NB:** The development needs to focus on description not on explanation. Credit answers about attempts that have been made, are in progress or are currently in the planning process. Mark the best scoring problem if more than one is included.

[Total 25: marks]

Page 8	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

3 (a) (i) in bays [1 mark]

- (ii) Ideas such as:
  - formed of resistant rock/hard rock;
  - not eroded rapidly (so protrudes into sea);
  - softer rocks either side worn back more quickly; etc.
    [2 @ 1 mark]
- (iii) Features such as:
  - Cliff:
  - Wave cut platform;

Stump, etc.

- Cave;
- Arch:
- Stack:
- •
- (iv) Processes: Hydraulic action, corrosion, solution, corrasion, attrition [2 marks]

### **Description**:

Hydraulic action – wears away the rocks by weight/force

of waves/compression of air in cracks;

Corrosion/solution – acids in sea water dissolve the rocks;

Corrasion – loose materials carried by waves wear rocks/

Sandpaper action;

Attrition – particles reduced in size by hitting each other.

**NB**: Explanations must fit with process name for credit [2 @ 2 marks] [4]

- (b) (i) (at A) sand near the sea/no sand near the cliff;
  - (at B) more shingle in the middle section/mixture of smaller and larger in middle;
  - (at C) large/lots of/more percentage of pebbles/large/big stones near the cliff/smaller percentage of large pebbles near the sea; etc.

**NB:** No need for comparison.

[3 @ 1 mark] **[3]** 

[3 @ 1 mark]

[3]

- (ii) Ideas such as;
  - rock type along coast;
  - effects of swash/backwash;
  - · impact of longshore drift;
  - wave type/destructive or constructive waves;
  - size of waves;
  - (prevailing) winds/direction/speed;
  - impact of sea defences;
  - whether used by people;
  - large rocks near cliff because fallen from cliff;
  - smaller material near sea as affected by attrition from waves; etc.

[5 @ 1 mark or development] [5]

Page 9	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

<u>Level 1</u> [1–3 marks]

Statements including limited detail which explain the formation and/or development of coastal sand dunes.

<u>Level 2</u> [4–6 marks]

More developed statements which explain the formation and/or development of coastal sand dunes.

<u>Level 3</u> [7 marks]

More developed statements which explain the <u>formation and development</u> of coastal sand dunes. Comprehensive and accurate statements.

## Content Guide:

Answers are likely to refer to;

- Movement of sand by wind,
- Wind deposition,
- Accumulation around an object,
- Growth of marram grass,
- Dune succession/colonization by vegetation etc.

[7]

[Total: 25 marks]

Page 10	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

# 4 (a) (i) Emergents

[1 mark] [1]

- (ii) Ideas such as:
  - they support the tree;
  - they prevent the tree being blown over/prevent it from falling over;
  - because the soil is poor they don't go far into the ground;
  - they increase the area from which nutrients/water can be absorbed from the soil; etc.

[2 @ 1 mark] [2]

### (iii) Characteristics such as:

- Dense vegetation/trees close together;
- Distinct layers of vegetation;
- lianas:
- epiphytes/plants/fungi growing on trees;
- canopy of leaves/very little light penetrates;
- little undergrowth;
- drip tip leaves/waxy leaves;
- lots of different species;
- shrub layer lower layer of small plants and shrubs;
- tall trees/emergents which grow taller towards the sunlight;
- shallow roots;
- straight trunks;
- leaves at top of trees;
- evergreen appearance; etc.

[3 @ 1 mark] [3]

#### (iv) Ideas such as:

- high rainfall/lots of water;
- high temperatures;
- optimum growing conditions;
- no seasons;
- rapid nutrient cycling;
- variety of habitats for different organisms;
- large supplies of food for insects/animals/birds;
- many areas are still not exploited by people;
- lots of sunlight;

[4 @ 1 mark] [4]

## (b) (i) Ideas such as;

- Brazil higher amount than Indonesia/can quote any years;
- Indonesia generally <u>increasing</u> Brazil generally <u>decreasing</u>/can use time periods/years;
- Gap between the two countries decreasing;
- Both countries experience fluctuations;
- Figures are more similar/stable in Indonesia;
- (2 or 4 figures as appropriate) statistics for any idea; etc.

**NB:** Must be comparative.

[3 @ 1 mark] [3]

Page 11	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

## (ii) Ideas such as:

- destruction of vegetation/kills plants;
- results in loss of habitat (dev);
- so threat to species/extinction (dev);
- less nutrients are returned to the soils;
- so they quickly become infertile (dev);
- saturation of soil;
- more rapid run off;
- leads to more soil erosion;
- as there are no roots to stabilize soil (dev);
- kills animals/fish/birds;
- flooding;
- impacts on food chains; etc.

[5 @ 1 mark or development]

[5]

# (c) Levels marking

Level 1 [1–3 marks]

Statements including limited detail which explain why deforestation has occurred.

Level 2 [4–6 marks]

Uses named example.

More developed statements which explain why deforestation has occurred.

(Max. 5 marks if no named example.)

Level 3 [7 marks]

Uses named example.

Comprehensive and accurate statements including place specific reference.

#### Content Guide:

- Answers are likely to refer to;
- Lumbering/logging,
- Tourism.
- Commercial agriculture/growing e.g. sugar cane
- Cattle grazing/ranching
- Mining/quarrying/mineral extraction,
- Building settlements/more space needed for growing population,
- Road building,
- Dams/reservoirs/HEP,
- Railways
- Government policy encouraging economic development, etc.

NB: Development is of the explanation e.g. why it has occurred – causes of deforestation not impacts of deforestation.

[Total: 25 marks]

Page 12	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

# 5 (a) (i) Secondary

[1 mark] [1]

## (ii) Similarity (reserve):

• Increase up to 2008/decrease to 2009 (or any time period e.g. 2004–2007)/in 2008 produced the same amount;

### Difference (reserve):

- More cars produced in Japan/less in other countries;
- Steeper decline in production in Japan/steeper increase in other countries;
- 2000–2001 Japan decreases and others increase; etc.

**NB:** Accept statistics if accurate;

[1 + 1 mark] [2]

### (iii) Ideas such as:

- Cheaper labour;
- Cheaper land/very expensive land in Japan/not much land in Japan(more space in other countries);
- Close to major markets/reduces transport costs/more people to sell to;
- Avoid import tariffs/taxes;
- Increase brand awareness/prestige in other countries;
- To encourage international links/relationships; etc.

[2 @ 1 mark] [3]

#### (iv) Ideas such as:

- employment in factory/jobs/people can earn money;
- people can buy better food/send their children to school/better housing;
- improved service provision or example (healthcare; education)
- more money circulating in area/multiplier effect;
- development of transport network;
- development of infrastructure/electricity/water supply;
- more cars for Chinese people to buy;
- China earns money from taxes/improves economy; etc.
  [4 @ 1 mark]

#### (b) (i) Ideas such as;

- Input sand/limestone/salt/coal
- Process cooling/hardening/cut into lengths/melting raw materials
- Output glass [3 @ 1 mark] [3]

## (ii) Ideas such as:

- Location of raw materials;
- Especially if raw materials are bulky/heavy/perishable (dev);
- Location of market;
- Market location where products are bulky/heavy/perishable (dev);
- To reduce transport cost (dev);
- Availability of labour;
- Skills/cheap labour depending on industry;
- Cost of land;
- Availability of transport/near any example e.g. road/rail;
- Government incentives;
- Amount of land needed/large areas of land;
- Flat land;
- Near water supply;
- Near electricity supply;
- Near ports; etc.

[5 @ 1 mark or development]

Page 13	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

<u>Level 1</u> [1–3 marks]

Statements including limited detail which describe the impacts of manufacturing industry on the natural environment.

<u>Level 2</u> [4–6 marks]

Uses named example.

More developed statements which describe the impacts of manufacturing industry on the natural environment.

(**NB**: Max 5 if no example.)

<u>Level 3</u> [7 marks]

Uses named example.

Comprehensive and accurate statements including place specific reference.

#### Content Guide:

Answers are likely to refer to;

- Atmospheric pollution,
- Noise scares wildlife,
- Loss of habitat,
- Destruction of food chains,
- · Pollution of water courses,
- Acid rain,
- Global warming etc.

[Total: 25 marks]

Page 14	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

6 (a) (i) On scatter graph [1 mark] [1]

(ii) Higher the GNP the higher the percentage tertiary/or vice versa;

2 × sets (4 figures) of statistics to illustrate relationship; etc.

[2 @ 1 mark] [2]

(iii) Ideas such as:

- education/skills for employment in tertiary sector;
- lots of offices/shops/businesses;
- people have high spending power;
- demand for services/want more services/(or examples);
- high paying jobs/people or country earns more money; etc.

[3 @ 1 mark]

[3]

(b) (i) Ideas such as;

- Busiest time of year is June-Aug at Yellowstone but Nov – March at Everglades (accept summer, winter/beginning or end of year);
- high season/busiest time of year is longer at Everglades/shorter in Yellowstone;
- best time to go to Yellowstone is May/June/Sept/Oct/spring/autumn, but Everglades Sept to April/autumn, winter, spring;
- both are seasonal; etc.

**NB**: Must compare

[3 @ 1 mark] [3]

(ii) Ideas such as:

- At busiest times there will be traffic congestion;
- visitor attractions will be overcrowded;
- Income will not be consistent/they don't earn money in low season;
- Work will be seasonal/no jobs in winter;
- Hotels will be full at some times of year and under-used at others;
- more litter in peak season; etc.

[4 @ 1 mark] [4]

(iii) Ideas such as:

- loss of natural vegetation;
- causes habitat loss (dev);
- traffic causes air pollution;
- rivers/seas could be polluted (with sewage/litter);
- threat to species/kills wildlife;
- noise frightens wildlife;
- creating National Parks conserves species;
- careful management preserves natural environments/prevents extinction;
- money earned used to protect environment; etc.

**NB:** 1 mark reserve on positive/negative

[5 @ 1 mark or development]

[5]

Page 15	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2015	0460	11

<u>Level 1</u> [1–3 marks]

Statements including limited detail which describe the natural and/or human attractions of an area where tourism is important.

<u>Level 2</u> [4–6 marks]

Uses named example.

More developed statements which describe the natural and/or human attractions of an area where tourism is important.

(NB: Max 5 if no named example)

<u>Level 3</u> [7 marks]

Uses named example.

Comprehensive and accurate statements which describe the natural and human attractions of an area where tourism is important, including place specific reference.

#### Content Guide:

- Answers are likely to refer to;
- Scenery,
- · Beaches,
- Weather/climate,
- National Parks,
- Vegetation,
- Wildlife,
- Entertainments,
- Historical buildings,
- Monuments, etc.

**NB:** Description can be what it is like or what attracts people to it.

[Total: 25 marks