

MARK SCHEME for the October/November 2008 question paper

0460 GEOGRAPHY

0460/01

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

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Levels of response marking is used for section (c) of each question.

It is the quality of the response which determines which level an answer is achieved, rather than the number of statements contained within it. However once assigned to a level the mark achieved within that level is determined by the number of points made.

Levels 1 and 2 are distinguished by whether statements are simple (level 1) or developed/elaborated (level 2). A candidate can immediately enter L2 by making developed points without making any L1 statements. In order to achieve L3 a candidate must have already reached the top end of L2 – in addition his/her answer should have a clear example (for 6 marks), and if the answer is place specific as well (7 marks).

Summary:

Level 1 (1 to 4 marks):

- 1 simple statement (1 mark)
- 2 simple statements (2 marks)
- 3 simple statements (3 marks)
- 4 or more simple statements (4 marks)

Level 2 (3 to 5 marks):

- 1 developed statement (3 marks)
- 2 developed statements or 1 developed statement + 2 or more simple statements (4 marks)
- 3 or more developed statements or 2 developed + 2 simple statements (5 marks)

Level 3 (6 or 7 marks)

- 3 or more developed statements + named example or 2 developed + 2 simple statements + named example (6 marks)
- 3 or more developed statements with at least one piece of place specific detail + named example or 2 developed + 2 simple statements + named example + one piece of place specific detail. (7 marks)

All answers, whether marked by point marking or levels, should have signs of having been assessed by the examiner. Crosses are acceptable to signify wrong answers and a red line accompanied by the letters 'I/R' should be used to indicate those which are irrelevant.

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1 (a) (i) Population of working age [1]

(ii) **A** Greater %/more old in Japan at 75+/old dependents; Japan pyramid has wider apex/top to pyramid etc.
Any individual bar can be taken as long as compare with other country.
Japan 65+ 15–7% Indonesia 3–5%

B Greater percentage of population in 0–4 age groups/wider base to Indonesian pyramid. Etc.
Indonesia 11–11.5% Japan 4.5–5%

2 @ 1 mark [2]

(iii) Candidates should compare here though we should link together two discrete accounts providing they are not simple repetition of figures without interpretation.

Ideas such as:

greater proportion of young dependents in Indonesia;

about 33–35% of population of Indonesia compared with about 14–16% of that of Japan;

about 2x percentage in Indonesia than Japan;

Cannot look at individual bars – must be 0–14

3 @ 1 mark with 1 mark reserved for use of figs

Max 2 marks if no figures [3]

(iv) Reference to factors such as:

birth rates;

access to contraceptives;

education about birth control;

education about adverse impacts of large families;

degree of mechanisation of/dependence on agriculture;

marry young

polygamy

IMR;

impacts of government policy;

influence of over decision making;

attitudes towards women;

whether women want a career before children;

desire for material possessions;

death rates;

health care;

care structure for old (or examples)

whether pension schemes are set up; etc.

Do not double credit.

4 @ 1 mark or development [4]

(b) (i) Ideas such as:

Japan percentage higher than that of Indonesia;

Japan percentage increasing more rapidly than Indonesia;

Japan 7% 1970 Indonesia 3% 1970;

Japan 18–19% 2005 Indonesia 5% 2005.

Accept any other year up to 2005 as long as figs correct (max 1)

Max 2 for use of figures

3 @ 1 mark [3]

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- (ii) Reasons such as:
 longer life expectancy;
 better treatment of diseases
 e.g. cholera, typhoid, AIDS (LEDC diseases)
 e.g. cancer, heart attack, stroke, AIDS (if not above) (MEDC)
 improved health care/medical facilities/hospitals, clinics
 more doctors, nurses, or other staff;
 more medicines, drugs, vaccinations
 investment in care homes
 services for elderly or example
 low birth rates/small families (max 2)
 improved food supplies
 better sanitation/water supplies etc.
 5 @ 1 mark or development

[5]

(c) Levels marking

Level 1 (1–4 marks)

Statements including limited detail explaining why the government is concerned by an ageing population.

(e.g. increasing percentage of elderly dependents; strain on working population; higher taxation; need for more money to be spent; lack of workforce; harder to defend country; increase in rates of pay; under use of services for young etc.)

Level 2 (3–5 marks)

More developed statements explaining explaining why the government is concerned by an ageing population.

(e.g. increasing percentage of elderly dependents causes strain on working population; higher taxation as a result of increasing percentage of elderly dependents; need for more money to be spent on care homes/health care etc.; lack of innovative workforce; not enough recruitment to forces to defend country; lack of workers means need to attract foreign workers; reduced supply of workers leads to increase in rates of pay; under-use of services for young leads to inefficiency/closure of schools etc.)

Level 3 (6–7 marks)

Uses named example (e.g. Japan).

Comprehensive and accurate statements explaining why the government is concerned by an ageing population, including some place specific reference.

(e.g. With over 20% of population elderly dependents causes strain on working population; higher taxation as a result of increasing percentage of elderly dependents; need for more money to be spent on care homes/health care etc.; lack of innovative workforce causes stagnation in electronics industries; not enough recruitment to forces to defend country; lack of workers means large need to attract Chinese and Filipino workers; reduced supply of workers leads to large MNCs like Sony having to increase in rates of pay/may reduce likelihood of future investment; under-use of services for young leads to inefficiency/closure of schools etc.)

[7]

[Total: 25]

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- 2 (a) (i) Model A [1]
- (ii) X = CBD/business/commercial
Y = Industry
2 @ 1 mark [2]
- (iii) **Similarities** such as:
both has CBD in the middle
concentric pattern;
industry in wedge around main road etc.
Differences such as:
in model A centre is surrounded by band of medium quality housing/model B surrounded by low quality housing;
model A has squatter settlements/model B does not;
high quality residential is in a sector in model A/in model B it is in a band etc.
model A gets worse as go out, model B gets better as go out.
4 @ 1 mark with max 3 on each of similarities/differences [4]
- (b) (i) Ideas such as:
mainly outside/on edge of built up area;
close to Pan-American highway/main road or highway
foothills/close to edge of highland/ lowland
in clusters;
one cluster to north of Lima/west of Cono Este/one cluster to south east/west of Cono Sur etc.
Near River [Rimac]
3 @ 1 mark [3]
- (ii) Ideas such as:
where there is plenty of space/where land is free or available/land is unused but within reach of city for employment opportunities/can access jobs
land which has not been used for commercial activities;
as it may be prone to flood/landslide/too steep for building;
3 @ 1 mark [3]
- (iii) Ideas such as:
many people migrate from countryside;
for work opportunities (dev);
to improve quality of life (dev);
better provision of doctors/hospitals (dev) etc.;
better chance of education for children (dev);
many people are unable to obtain jobs;
work for low pay/cannot afford housing/work in informal sector;
inadequate investment in housing stock;
rates of natural increase are high etc.
bright lights
not much space
5 @ 1 mark or development [5]

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(c) Levels marking

Level 1 (1–4 marks)

Statements including limited detail on methods used to improve quality of life in squatter settlements.

(e.g. improve water supply, improve sanitation, Infrastructural development; build more housing; provide better education facilities; provide better health facilities; Improvement of communications; self help schemes; charitable initiatives working with street children etc.)

Level 2 (3–5 marks)

More developed statements on methods used to improve quality of life in squatter settlements.

(e.g. Installation of mains water; Laying of sewage pipes/building of sewage works; increase of local authority housing stock; build tarred roads to shanty towns; provide public transport to shanty towns; Regular collection of refuse; Site and services schemes; education in building skills; provision of low cost building materials; building of schools; building of clinics/hospitals; provide free education for street children etc.)

Level 3 (6–7 marks)

Uses named example (e.g. Rio de Janeiro).

Comprehensive and accurate statements on methods used to improve quality of life in squatter settlements, including some place specific reference.

(e.g. Installation of mains water in favelas; Laying of sewage pipes/building of sewage works in areas such as Rocinha; increase of local authority housing stock; build tarred roads to shanty towns on mountain slopes on edge of city; provide public transport to shanty towns; Regular collection of refuse; Site and services schemes; education in building skills; provision of low cost building materials; building of schools; building of clinics/hospitals; provide free education for street children etc.)

[7]

[Total: 25]

- 3 (a) (i) Stevenson Screen** [1]
- (ii) (Maximum/minimum) thermometer; Barometer**
2 @ 1 mark [2]
- (iii) A** to reflect sun's rays/so it is not heated by the sun
B to allow free flow of air
C so it measures condition of air not ground
3 @ 1 mark [3]
- (iv) Ideas such as:**
open space/away from trees and/or buildings;
so instruments are not sheltered from wind
so instruments are not shaded from sun
on grass/not on concrete or any other surface
as temperatures above concrete will be artificially high (reason);/on grass will be standard or measure real air temp.
in a fenced/walled compound;
to avoid tampering (reason) etc.
4 @ 1 mark crediting reasoning as development
NB Max 3 without any reasoning [4]

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- (b) (i) Ideas such as:
reduction in air pressure between 12.00 (15 Oct) and 04.00 (16 Oct); overnight
lowest point in early morning or 4am
from 985/986mb to 962/963mb;
increase up to 12.00 (16 Oct)/morning
from 962/963mb to 995mb;
increase steeper then reduction etc.
3 @ 1 mark [3]
- (ii) Ideas such as: (can compare via words or figures but need comparison) or could use
figures for development as (1 + 1)
higher air pressure at 16.00;
higher temperature at 02.00;
raining at 16.00, dry at 02.00;
higher wind speed at 02.00;
wind direction 30–40 degrees at 16.00, 200–210 degrees at 02.00.
5 @ 1 mark [5]

(c) Levels marking

Level 1 (1–4 marks)

Statements including limited detail describing problems experienced by people as a result of drought.

(e.g. people killed, crops destroyed, they have no water to drink, soils ruined, people move away, food shortages, vegetation catches fire etc.)

Level 2 (3–5 marks)

More developed statements describing problems experienced by people as a result of drought.

(e.g. people have to walk long distances to find water; lower crop yields leads to lack of food; death through starvation/malnutrition; farmers unable to leave land fallow therefore soils exhausted; overgrazing of livestock takes place;
Increased likelihood of soil erosion by wind; loss of vegetation leads to more rapid run off; greater potential for flash floods;
people move to cities to find food/water: veg catches fire and destroys crops/settlements/create haze etc.)

Level 3 (6–7 marks)

Uses named example (e.g. Eritrea). COUNTRY or Sahel

Comprehensive and accurate statements describing problems experienced by people as a result of drought, including some place specific reference.

(e.g. lower crop yields so malnutrition rate reached 19.1 percent in Gash Barka zone; 2.3 million people in Eritrea/almost two-thirds of the population depend on food aid; although 80 percent of the population is rural the country only produced 47 percent of its average harvest; over a million Eritreans are likely to go hungry this year; it is made worse because Eritrea is still recovering from a war with neighbouring Ethiopia; also the resettlement of Eritrean refugees returning from Sudan is an extra strain on the country's resources. Etc.)

[7]

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- 4 (a) (i) C** [1]
- (ii)** Ideas such as:
A has steeper sides;
B has wider valley floor/it has a flood plain but **A** does not;
A is more V shaped **B** is more “U”/open V shaped etc.
 2 @ 1 mark [2]
- (iii)** hydraulic action;
 corrasion/abrasion;
 corrosion/solution
 attrition
 Accept either name of process or description
 3 @ 1 mark [3]
- (iv)** large materials being pushed/rolled along bed (traction);
 pebbles being picked up by water and bounced along the bed/series of hops (saltation);
 light materials carried within the water (suspension);
 materials dissolved in the water (solution)
 4 @ 1 mark
 (NB 1 mark for 2 named processes – or 2 marks for all 4) [4]
- (b) (i)** Features should be evident from photographic evidence. Ideas such as:
 steep/vertical falls/cliff
 long drop/high
 main falls are wide;
 smaller falls to left;
 lake/plunge pool at base;
 bare rock of falls;
 white water/fast flowing/powerful
 spray at base
 waterfall has cut down etc.
 3 @ 1 mark [3]
- (ii)** Ideas such as:
 Benefits:
 scenic beauty;
 tourist industry;
 specified employment opportunities (dev)
 HEP;
 attracts industry/multiplier (dev)
 downriver transport of logs

 Disadvantages:
 causes problems with navigation of river;
 crossing falls is difficult etc.

 5 @ 1 mark or development
 Max 3 on benefits and problems [5]

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(c) Levels marking

Level 1 (1–4 marks)

Statements including limited detail explaining the causes of a river flood.

(e.g. heavy rain, impermeable rocks, flood plains built on, deforestation, urban growth, dam collapse etc.)

Level 2 (3–5 marks)

More developed statements explaining the causes of a river flood.

(e.g. heavy rain falling over a relatively short period, impermeable rocks encouraging overland flow and rapidly raising river levels, underlying rocks river/constricting flow, urban growth leads to more rapid run off etc.)

Level 3 (6–7 marks)

Uses named example (e.g. River Lyn).

Comprehensive and accurate statements explaining the causes of a river flood, including some place specific reference.

(e.g. thunderstorms associated with frontal depression formed torrential rain – 229mm near Longstone Barrow on Exmoor, saturated from previous rainfall as it had rained for 12 of the previous 14 days, impermeable rocks of Exmoor encouraging overland flow and rapidly raising river levels, river had been diverted and its channel made narrower due to building of hotels in Lynmouth, bridges over river trapped boulders and formed temporary dams etc.)

[7]

[Total: 25]

5 (a) (i) 680 million [1]

(ii) A Europe

B Asia-Pacific

2 @ 1 mark

[2]

(iii) Ideas such as:

increasing affluence/increased income/higher wages

particularly in countries such as China (dev)

longer (paid) holidays/increased leisure time/paid holidays

further developments in air travel;

low cost airlines (dev);

investment in larger airline capacity (dev)

growth of marketing of holidays;

ease of booking through internet etc.

development of tourist facilities (airports, hotels etc.)

increase in grey market/no of retired

3 @ 1 mark or development

[3]

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- (b) (i) Ideas such as:
more jobs are created for local people or egs
foreign exchange/income;
enabling spending on education/hospitals etc.
development of infrastructure (water, electricity, gas, telephones)
development of transport networks, roads, airport etc.)
cultural exchange;
retention of culture/traditions;
increased market for local farmers;
sales of local craft items
locals can use tourist facilities e.g. shopping malls/cinemas
3 @ 1 mark or development [3]
- (ii) Ideas such as:
increase in local traffic (on St Louis Road)/congestion/atmospheric pollution from traffic;
loss of local culture/traditional way of life;
impact of behaviour of tourists/drunkenness etc.;
noise from tourists; (leaving Boat House Creole Buffet)
exploitation/low paid jobs/long hours;
seasonal work;
shortage of water supplies;
litter from tourists (on Beau Vallon beach)
lack of privacy;
loss of farmland for building
tourist buy houses
sea pollution etc.
3 @ 1 mark + 1 reference to map/photos [4]
- (iii) Features should ideally be evident from photographic evidence though some observations may be 'by implication'. No maximum mark on map/photographs. Ideas such as:
sandy/large beaches;
calm/clear/blue seas;
(tropical) lush vegetation/palm trees/rainforest/jungle
marine parks (or example);
headlands/bays;
National Park;
boat trips/fishing
international air access;
variety/large amounts of accommodation or named example accommodation

mountains;
blue skies/sunshine/warm or hot weather or temperature
creole food/local cuisine
botanical gardens
small islands offshore etc.

5 @ 1 mark
OR 4@ 1 mark plus 1 named example [5]

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(c) Levels marking

Level 1 (1–4 marks)

Statements including limited detail describing what has been done to maintain, improve or conserve the quality of the environment.

(e.g. restricting tourist numbers; conserving wildlife; ensuring vegetation/habitat is not cleared for tourist development; developing ecotourism; setting up National Parks/conservation areas; education of tourists regarding environmental issues; employing people to clear up regularly; more litter bins; restricting access etc.)

Level 2 (3–5 marks)

More developed statements describing what has been done to maintain, improve or conserve the quality of the environment.

(e.g. restricting tourist numbers by dealing with a limited number of tourist firms; ensuring wildlife is conserved by setting up National Parks/conservation areas; refusing planning permission for development of tourist facilities which would destroy vegetation/habitat; encouragement of ecotourism by governments incentives; education of tourists regarding environmental issues by guided walks/visitor centres; restricting access to sensitive areas by fencing them off etc.)

Level 3 (6–7 marks)

Uses named example (e.g. Menorca).

Comprehensive and accurate statements describing what has been done to maintain, improve or conserve the quality of the environment, including some place specific reference.

(e.g. restricting tourist numbers by dealing with a limited number of tourist firms; refusing planning permission for buildings over 2 storeys within 250 m of coast; eco-tax established to raise money for environmental protection; creation of Biosphere Reserve; Just north of Mao on the coast is the Parc Natural de S'Albufera des Grau, a most important wetlands reserve area; restricting access to sensitive areas by fencing them off and creation of marked paths such as those in S'Albufera des Grau etc.)

[7]

[Total: 25]

- 6 (a) (i)** Fuel formed from remains of plants/animals [1]
- (ii)** Africa; Asia and/or Pacific
2 @ 1 mark [2]
- (iii)** Candidates should identify differences here though we should link together two discrete accounts. Ideas such as:
Greater proportion of fossil fuels used in Europe;
Greater proportion of Hydro used in South America;
Greater proportion of nuclear used in Europe
Greater proportion of fuelwood in South America
3 @ 1 mark [3]
- (iv)** Candidates should suggest reasons for the importance of different types of energy.
Expect ideas such as:
availability of reserves of fossil fuels/coal/oil/natural gas;
level of development/technology available;
government policy/attitude/towards the environment/e.g. nuclear power;
environmental conditions or examples e.g. opportunity to use solar power, HEP etc. (to max 2)
Cannot afford set up costs etc.
4 @ 1 mark or development [4]

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- (b) (i) Problems such as:
likely to slow down economic growth;
higher production costs/cost of products increase
higher transport costs;
balance of payments deficits/higher import bills
makes them less competitive etc.
3 @ 1 mark [3]

- (ii) Ideas such as:
burning oil pollutes the atmosphere;
with gases such as carbon dioxide/sulphur dioxide;
causing acid rain;
which damages forests;
gases result in global warming/enhanced greenhouse effect;
melting of ice caps;
rise in sea level;
flooding of areas of coastal lowland;
oil spillages at sea;
kills aquatic life etc.
1 reserve on each of transport/use.
5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–4 marks)

Statements including limited detail describing how renewable energy supplies are being developed.

(e.g. tidal power, HEP, wind power, wave power, solar, geothermal, biofuel etc.)

Level 2 (3–5 marks)

More developed statements describing how renewable energy supplies are being developed.
(e.g. tidal power is being developed in bays and estuaries/where the tidal range is large, HEP is being developed in mountainous areas with high precipitation, wind power is being developed offshore and in mountainous areas, wave power is being developed where waves are large etc.)

Level 3 (6–7 marks)

Uses named example (e.g. UK).

Comprehensive and accurate statements describing how renewable energy supplies are being developed including some place specific reference.

(e.g. tidal power is being developed in bays and estuaries like the Severn Estuary, HEP is being developed in mountainous areas with high precipitation such as the pumped storage scheme at Dinorwic in Snowdonia, wind power is being developed off the coast of East Anglia and in Morecambe Bay in mountainous areas such as the Pennines etc.)

[7]

[Total: 25]