MARK SCHEME for the May/June 2010 question paper

for the guidance of teachers

2217 GEOGRAPHY

2217/11   Paper 11 (Geographical Themes), 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 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.

CIE is publishing the mark schemes for the May/June 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

The features of the marking scheme

Each question carries 25 marks. Candidates cannot earn above the maximum marks available within each sub section.

The marking scheme attempts to give guidance about the requirements of each answer and lists a number of responses which will earn marks along with the general principles to be applied when marking each question. It should be noted that candidates can earn marks if their answers are phrased differently provided they convey the same meaning as those in the mark scheme. THE CANDIDATES DO NOT NEED TO USE THE SAME WORDING TO EARN MARKS.

The notation 'etc' at the end of an answer in the mark scheme signifies that there may well be other correct responses or examples that can be given credit. Providing the statement is true, relevant to the question asked and not repetition of a previous point made credit should be given.

A point made within one sub-section which is an answer to the question set in a different sub-section should not be given credit as each sub-section asks different questions which require independent answers.

The mark scheme uses semi colons (;) to separate marks and diagonals to separate alternative answers.

During coordination the mark scheme is modified to add points agreed after discussion or to delete any points not allowed. All examiners should ensure that their modified scheme is fully up-to-date before marking begins.

Marking mechanics.

Point marking is used for sections (a) and (b) of each question, although marks are available in specified questions for development of appropriate points. Ticks should be used to clearly indicate the wording on a script where a mark has been allowed. Where a development point has been allowed the letter 'D' should be placed adjacent to the tick. The number of ticks should always be equal to the total number of marks awarded, the mark for each sub-section should be added up and placed in the margin at the end of the sub-section. The total mark for the entire question should be added and transferred to the front of the script.

Where a candidate makes a point which is not quite sufficient for credit an upturned 'V' insert symbol should be used. If after careful consideration a mark is awarded which gives `benefit of doubt` to the candidate the letter 'J' should be placed adjacent to the tick (ie the candidate has `just` achieved the mark).

Levels of response marking is used for section (c) of each question. Thus it is the quality of the response which determines which level an answer is achieved rather than the quantity 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, and the answer must be place specific as well (7 marks – L3).

Where statements are assigned levels by the examiner this should be indicated by the use of L1, L2 and L3 next to the statements. A summary of the overall level and mark awarded should be written at the end of the answer. Ticks should **not** be used on answers which are marked using levels of response marking.

1 (a) (i) 18.5 people die (per year) per 1000 people

NB: Must have 'per thousand'

1 mark [1]

(ii) 10.7 minus 10.3 (one mark for method)
0.4 per 1000 /0.04% (2nd mark for correct calculation)

2 @ 1 mark [2]

(iii) Ideas such as:
poor health care/few hospitals/doctors/nurses/clinics;
poor sanitation/poor hygiene/lack of toilets/dirty places;
poor access to safe/clean water/water borne diseases;
limited food supplies/malnutrition/starvation;
HIV/AIDS;
Natural disasters/drought/floods;
Lack of vaccinations/medicines/cannot cure diseases;
Lack of education about healthy lifestyles e.g. smoking/diet;
Lack of provision for elderly e.g. pensions/old people's homes;

3 @ 1 mark – 1 per line. [3]

(iv) Ideas such as :
availability of contraception/family planning/abortions;
educated re. contraception/family planning;
able to afford contraception/family planning/abortions;
traditionally small families/don't need to prove virility/not traditional to have large families;
expense of bringing up children/childcare/don't have to send children to work/can afford to bring up children;
many women have careers/women are educated;
availability of pensions/do not need children to look after parents in old age;
low infant mortality rate;
Lack of religious beliefs/don't object to contraception; etc

4 @ 1 mark – 1 per line. [4]

(b) (i) Ideas such as:
MEDC pyramid will have narrower base/less children;
MEDC pyramid will have wider top/more old people;
MEDC pyramid will be bullet shape/not pyramid/straighter sides;
MEDC pyramid shows people living to older age/has higher age groups;
MEDC pyramid will have more economically active aged people; etc.

NB Ideally answer should be comparative, however accept discrete accounts to link two separate statements.
Could talk about LEDC opposite as long as it is specified and comparative.
The answer can relate to the pyramid or the structure.

3 @ 1 mark [3]

(ii) Impacts such as:
strain on working population/economy/families; unable to supply enough food (dev);
to pay for childcare (dev).
time spent by women on childcare/unable to do other work
(or example)
need for more money to be spent on health care/maternity facilities (dev)
overcrowded homes;
street children;
not enough/overcrowded schools;
cost of education/school; so children don't get qualifications (dev)

5 @ 1 mark or development   [5]

(c) Levels marking

Level 1   (1–3 marks)
Statements including limited detail describing the impacts of
HIV/AIDS on population and/or economy.
(e.g. people are unable to work, increases medical care cost, reduces size of population, people die, reduces life expectancy, can be passed onto babies, less food produced discourages tourism etc)

Level 2   (4–6 marks)
Uses named example
More developed statements describing the impacts of
HIV/AIDS on population and/or economy.
(e.g. people are unable to work/less food produced as they become weak/cannot fight infections, increases medical care cost as long term care is needed, reduces size of population due to deaths of people of child bearing age, increases numbers of orphans as many people who die of HIV/AIDS are aged between 20 and 40 etc)

NB Max 5 if no named example

Level 3   (7 marks)
Uses named example (e.g. Zimbabwe).
Comprehensive and accurate statements describing the impacts of HIV/AIDS on population and economy including some place specific reference.

(NB **Place specific references** could include named settlements or rural areas. Alternatively candidates might quote changes in demographic statistics as a result of HIV/AIDS)   [7]

[Total: 25]

2 **(a)** **(i)** Car/auto-rickshaw/motorized rickshaw/3 wheel car/lorry/truck/tanker/motor cycle/scooter/ taxi

2 needed for 1 mark [1]

(ii) Shops/mall;
Offices;
Banks;
Courier/fax/printing/office supplies;
Taxi;

2 @ 1 mark [2]

(iii) Ideas such as:
Pedestrians only are allowed to use streets/vehicles are
banned from streets/pedestrianisation;
Road goes around city (centre) rather than through it/ring
road/bypass;
Park and ride/people park away from centre and use public
transport/bus/tram/metro/train to travel to CBD;
Improved bus services/tram network set up;
Specified new road development e.g. flyover/underpass;
Encourage use of bikes/car pooling;
Building parking areas rather than parking on the side of the road;
Build services outside CBD;
Stagger start of working day;
2+ people in car only lanes;
Increase price of fuel;
Congestion charging;
Only use particular colour car on a particular day; etc.

3 @ 1 mark [3]

(iv) Ideas such as reducing congestion will:
reduce journey times;
makes people on time for work/school/appointments;
cost saving of reduced time for journeys;
reduces stress levels/road rage;
reduces likelihood of accidents;
less standing traffic to pollute atmosphere;
and causes less noise/horns;
reduced congestion uses less fuel/fuel not wasted by stationary vehicles; etc.

4 @ 1 mark [4]

(b) **(i)** Ideas such as:
metro is built underground and/or elevated;
so roads will be free for traffic to use;
people will travel to work on metro/or travel to CBD on metro/college;
so there will be less vehicles on the roads/use train instead of car;
and there will be less people trying to park in CBD/park near station;
metro serves major attractions (or examples e.g. Cricket Stadium);
cheaper than using road transport;
serves most parts of the city/goes in all directions; etc.

3 @ 1 mark [3]

(ii) Conflicts/problems such as:
Disruption during construction phase; e.g. noise from machinery (dev), dust (dev), traffic congestion (dev);
Use of land for building of transport facilities; loss of cultivable land in suburbs;
may need to demolish properties to build new transport facilities; shanty towns cleared/people become homeless(dev);
potential loss of business for petrol stations/CBD car parks/shops; because people not using cars as much (dev)/ therefore loss of passing trade (dev).
Prefer tax money to be used for something else/leads to tax increases; etc.

5 @ 1 mark or development [5]

(c) Levels marking

<u>Level 1</u>   (1–3 marks)
Statements including limited detail on attempts to improve quality of life in squatter settlements.
(e.g. provide clean water, build new houses, move people away from the city, clean up the streets, self help, give better building materials, improved public transport, healthcare; etc)

<u>Level 2</u>   (4–6 marks)
Uses named example
More developed statements on attempts to improve quality of life in squatter settlements.
(e.g. government investment in high rise flats/low cost housing , give incentives for people to move away from the city/back to rural areas, install water mains/provide communal taps, have regular garbage collection, teach the people building skills, low cost loans/donate breeze blocks etc)

NB Max 5 if no named example

<u>Level 3</u>   (7 marks)
Uses named example (e.g. Rio de Janeiro).
Developed statements on attempts to improve quality of life in squatter settlements including some place specific reference.
(NB Place specific references are likely to be to areas within an LEDC settlement such as Rocinha. Alternatively candidates may use `local` terms such as 'favela'. It is possible that reference could be made to features of the city e.g. in the case of Rio the beaches or the steeply sloping surrounding hills.) [7]

[Total: 25]

3   (a)   (i)   Slip off slope/river beach

1 mark   (1)

  (ii)   Characteristics such as:
pebbles/stones;
angular/pointed/sharp/jagged;
grey;
mixture of sizes   etc

2 @ 1 mark   [2]

(iii)   Ideas such as:
water is flowing slowly;
and cannot carry its load;
thus deposition occurs;
gradual built up/repeat of process etc

3 @ 1 mark   [3]

(iv)   Methods of river erosion such as:
Hydraulic action; bed/banks worn away by weight/power of water (exp);
Abrasion/corrasion; bed worn away by materials which are being carried acting like sandpaper (exp);
Corrosion; bed/banks dissolved by chemicals in water (exp);
Attrition; materials being carried by river reduced in size by hitting each other/bouncing on river bed (exp)

NB One mark for each named process and one for explanation correctly linked with it.
Must have correct explanation to match the process.

2 @ 2 marks   [4]

   (b)   (i)   Natural Features such as:
flood plain/flat land (alongside river);
gently sloping valley sides;
meandering/winding river;
levees alongside river;
river is wide/widens out; etc.

3 @ 1 mark   [3]

(ii) Candidates should describe both the advantages and disadvantages for people of living on a flood plain. Credit up to 3 MAXIMUM for advantages/difficulties.

Advantages – √a
Expect advantages relating to issues such as:
Agriculture/fertile soils; so people can produce high yields of crops (dev).
Water for irrigation/for drinking/washing; so people can grow rice in areas that would otherwise be too dry (dev)/don't have to walk far to collect it (dev);
Communications (by river; by road/rail on flood plain);
River is source of food/fish;
Flat building land; etc

Difficulties – √ d
Expect difficulties relating to issues such as:
Flooding; so people may lose their property/crops washed away so food shortages (dev);
Instability of foundations;
Need to bridge river;
Often densely populated/competition for space; etc

5 @ 1 mark or development   [5]

(c) Levels marking

Level 1   (1–3 marks)
Statements including limited detail explaining delta formation.
(e.g. Deposition of sediment/alluvium by river;
Absence of major tidal flows/currents;
Distributaries form; etc)

Level 2   (4–6 marks)
Uses named example
More developed statements explaining delta formation.
(e.g. Deposition of sediment/alluvium by river as speed of flow slows down; river cannot carry load if river is heavily laden with silt; absence of major tidal flows/currents
allows continual build up of sediment; impact of salt water causes further deposition; growth of vegetation raises it above sea level; distributaries form to enable water to flow through to sea; etc)

NB Max 5 if no named example

Level 3   (7 marks)
Uses named example (e.g. Mississippi Delta)
Comprehensive and accurate statements explaining delta formation,
including labelled diagrams. (Must have labelled diagram rather than place specific information).   [7]

[Total: 25]

4 (a) (i) A volcano which is likely to erupt/is erupting/has erupted recently.

1 mark [1]

(ii) Ideas such as:
created a large crater;
created new land/extended coastline;
increased size of volcano;
more gently sloping;

2 @ 1 mark [2]

(iii) Ideas such as:
Buildings/housing destroyed/people homeless/whole village destroyed;
Roads cut off/railway cut off/communications/transport;
Crops destroyed/farm animals killed;
Fishing port isolated/economic impact described;
Holiday resort destroyed/economic impact described;
Ash causing breathing problems/have to wear face masks;
Ash disrupts flights;

3 @ 1 mark [3]

(iv) Ideas such as:
Monitoring/warning population/prediction;
Evacuation/re-locate homes;
Redirecting lava flow/by digging diversion canals;
Halting advance by dropping concrete slabs into flow/using concrete blocks as a wall;
Spraying water onto flow;
Education/training/emergency action plans/drills;
Building reinforcements e.g. sloping roofs; Max 1; etc

4 @ 1 mark [4]

(b) (i) Ideas such as:
Located on plate boundary;
Plates diverge/move apart/constructive;
Creation of gap between plates;
Magma released through gap;
Lava solidifies to create volcano;

3 @ 1 mark [3]

(ii) Ideas such as:
Fertile soils; therefore high crop yields (dev)
Geothermal power; provides cheap source of electricity (dev)
Attract tourists; need for tour guides(dev),souvenirs (dev);
Resource extraction; examples e.g. sulphur (dev);
Vulcanologists live close by to study volcanoes;

5 @ 1 or development [5]

(c) Levels marking

Level 1   (1–3 marks)
Statements including limited detail explaining why effects of tropical storms are likely to be greater in LEDC than MEDCs.

(e.g. in MEDCs buildings are likely to be stronger, MEDCs more likely to have finances to be able to rebuild, MEDCs have warning systems; evacuate plans etc)

Level 2   (4–6 marks)
Uses named example (only 1 named example)
More developed statements explaining why effects of tropical storms are likely to be greater in LEDC than MEDCs.

(e.g. in MEDCs buildings are likely to be made of stronger materials therefore there is likely to be less destruction, MEDCs are more likely to have finances and expertise/technology/ equipment to be able to rebuild, MEDCs have warning systems and move people to places of safety etc)

NB Max 5 if no named example

Level 3   (7 marks)
Uses named examples (2 named examples) (e.g. Florida and Bangladesh).   Must be comparative.
Comprehensive and accurate statements explaining why effects of tropical storms are likely to be greater in LEDC than MEDCs,   [7]

[Total: 25]

5 **(a)** **(i)** $ 12.4 billion (must state billion and $).

1 mark [1]

(ii) Amount increases;
By $3 billion/by c.25%
From 12.4 billion to 15.4 billion.

2 @ 1 mark [2]

(iii) Reasons such as:
growth of economy/brings in currency/money brought in/tax from tourism;
investment in infrastructure (or examples)/airports/roads;
multiplier effect (or example);
job creation;
more customers for businesses;
tourist facilities can be used by locals;
cultural exchange; etc.

3 @ 1 mark [3]

(iv) Evidence such as:
beaches/sunbathing;
pier;
sea/waves/bathing/activities e.g. swimming/windsurfing;
sand dunes;
state parks;
salt marsh;
wildlife/animals (or example);
Quiet/relaxing/not crowded; etc.

4 @ 1 mark [4]

(b) **(i)** Ideas such as:
coastal location/near the sea/in the east/Eastern Carolina;
areas which `stick out`/offshore (bars);
area to east of Greenville;
east of 76W;
mostly between 34º – 36ºN; etc.

NB: Can also include the 'outstanding area'.

3 @ 1 mark [3]

(ii) Advantages such as:
clean/green energy/does not damage the environment;
it is renewable;
does not pollute atmosphere;
or produce solid waste;
low production/running costs;
will preserve supplies of fossil fuels;
does not contribute to global warming (dev)/acid rain(dev);
Disadvantages such as**:**
Visual impact;
Noise from turbines;
Amounts of energy may be limited;
Wind doesn`t always blow/unreliable;
May negatively affect wildlife/birds;
High development cost/set up cost;
Shadow flicker;
Limited number of sites; which restricts development(dev); etc

5 @ 1 mark or development with Max 3 on
advantages/disadvantages.   √ a √d
Doesn't need to be comparative.   [5]

(c) Levels marking

<u>Level 1</u>   (1–3 marks)
Statements including limited detail describing causes and effects of air or water pollution.
(e.g. kills people, makes it hard to breath, factory smoke etc)

<u>Level 2</u>   (4–6 marks)
Uses named example
More developed statements describing causes and effects of air or water pollution.
(e.g. increased rates of lung cancer, asthmatics have difficulty breathing, factories producing smoke by burning fossil fuels etc)

NB Max 5 if no named example

<u>Level 3</u>   (7 marks)
Uses named example (e.g. air pollution in Beijing).
Comprehensive and accurate statements including some place specific reference.

NB **Place specific** details could include references to specific industries which are polluting, either types of industry or names of firms. Reference may be made to parts of cities in which the industries are located or rivers which flow through the city could be named. Statistics relating to gases or other specific pollutants could be given.
Write 'C' and 'E' in notation to identify causes and effects.
L3 must have some reference to both cause and effect.   [7]

[Total: 25]

6 **(a)** **(i)** Use of water on farms/irrigation/to water crops/grow food.

1 mark [1]

(ii) Differences such as:
Greater percentage use in industry in North America
Greater percentage used for agriculture in sub Saharan Africa
Slightly higher percentage used domestically in North America
Main use in sub Saharan Africa is agriculture and main use in North America is industry.
More balanced use in North America.

NB: Must have a comparison.

2 @ 1 mark [2]

(iii) Expect ideas such as:
people are more dependent on the land in Africa than in North America;
Greater proportion used for industry in North America as there are more factories;
Greater proportion used in homes in North America because supply infrastructure is more efficient;
people own more domestic appliances (washing machines/dishwashers) in North America.

NB: Don't need to look for comparisons.

3 @ 1 mark [3]

(iv) Ideas such as:
growing population (to feed);
more use of irrigation/need for irrigation;
more droughts occurring;
more agriculture taking place in marginal areas;
higher temperatures in many areas;
development of hydroponics;
use of HYV seeds; etc.

4 @ 1 mark [4]

(b) **(i)** Ideas such as:
In tropical areas/close to Equator/tropics;
Lots in Southern Hemisphere/South;
Many are in Africa;
With exception of e.g. Egypt;
Some in South/South East Asia;
More in LEDC's/poor countries/under developed countries;
Clustered pattern;
One mark MAX for examples (e.g. Ethiopia/Nigeria/Somalia; etc)

3 @ 1 mark [3]

(ii) Ideas such as:
Loss of lives/higher death rates; due to dehydration (dev).
Less food production/crops die; so people die of starvation (dev)/malnutrition (dev).
Migration to urban areas; as crops fail in rural areas (dev).
Slows down economic development;
Puts off tourists;
Lowers production of manufacturing industries; as water not available for cooling or processing goods (dev).
Reduction in levels of hygiene/sanitation; so diseases like cholera spread easily (dev).
Rationing/water restrictions etc;

NB: Could refer to an MEDC during a drought.

5 @ 1 mark or development [5]

(c) Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing how population can be supplied with clean water.
(e.g. dam/reservoir building; desalination plants; boreholes/wells; cloud seeding; etc)

Level 2 (4–6 marks)
Uses named example
More developed statements describing how population can be supplied with clean water.

(e.g. dam/reservoir building so water is retained after rainy periods; desalination plants in order to remove salt from sea water; boreholes/wells to obtain water from aquifer; cloud seeding by spraying silver iodide into atmosphere etc)

NB Max 5 if no named example

Level 3 (7 marks)
Uses named example (e.g. Saudi Arabia).
Comprehensive and accurate statements describing how population can be supplied with clean water including some place specific reference.

NB **Place specific references** could include names of locations within the country or area, or names of reservoirs. [7]

[Total: 25]