**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

GCE Ordinary Level

# MARK SCHEME for the October/November 2011 question paper

# for the guidance of teachers

## 2217 GEOGRAPHY

**2217/12**        Paper 1 (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.

* Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2011 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.

**Levels of response marking** is used for section **(c)** of each question.
Thus it is the quality of the response that determines which level an answer achieves 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 is place specific as well (7 marks).

Where statements are assigned levels by the examiner this should be indicated by the use of L1 and L2 next to the statements. Ticks should **not** be used on answers that are marked using levels of response marking.

**Summary:**
Level 1 (1 to 3 marks):
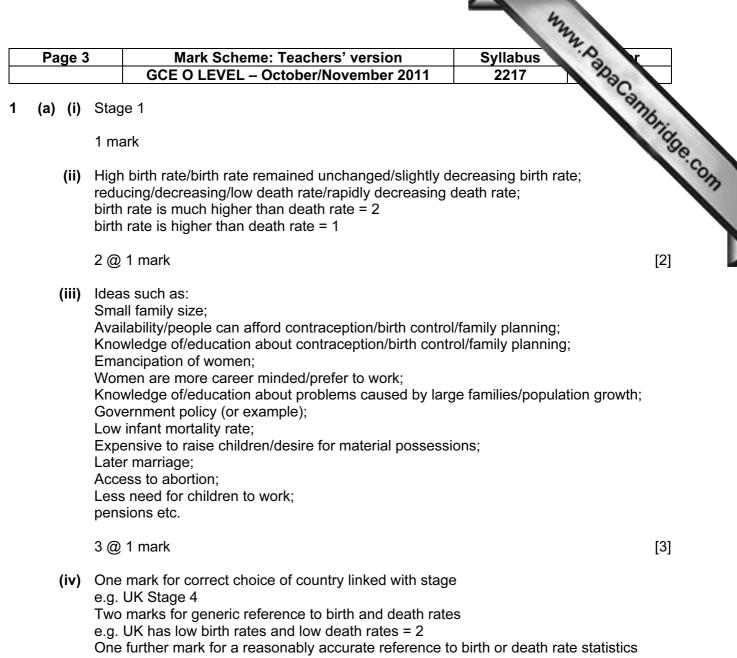1 simple statement (1 mark)
2 simple statements (2 marks)
3 simple statements (3 marks)

Level 2 (4 to 6 marks):
1 developed statement (4 marks)
2 developed statements (5 marks)
3 or more developed statements with e.g. (6 marks)

No example/inappropriate example = MAX 5 marks

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

1 (a) (i) Stage 1

1 mark

(ii) High birth rate/birth rate remained unchanged/slightly decreasing birth rate;
reducing/decreasing/low death rate/rapidly decreasing death rate;
birth rate is much higher than death rate = 2
birth rate is higher than death rate = 1

2 @ 1 mark [2]

(iii) Ideas such as:
Small family size;
Availability/people can afford contraception/birth control/family planning;
Knowledge of/education about contraception/birth control/family planning;
Emancipation of women;
Women are more career minded/prefer to work;
Knowledge of/education about problems caused by large families/population growth;
Government policy (or example);
Low infant mortality rate;
Expensive to raise children/desire for material possessions;
Later marriage;
Access to abortion;
Less need for children to work;
pensions etc.

3 @ 1 mark [3]

(iv) One mark for correct choice of country linked with stage
e.g. UK Stage 4
Two marks for generic reference to birth and death rates
e.g. UK has low birth rates and low death rates = 2
One further mark for a reasonably accurate reference to birth or death rate statistics
e.g. UK BR c.10 per 1000/DR c.10 per 1000

4 @ 1 mark [4]

**(b) (i)** Differences or similarities, which could be statistics or interpretation such as:
Zimbabwe's life expectancy generally higher;
Uganda's life expectancy higher in 2005;
Uganda's starts to fall in 1985 but Zimbabwe's starts to fall in 1990;
Uganda's rises again from 1995, Zimbabwe's keeps falling;
Zimbabwe in 1955 was 42, Uganda 40.

3 @ 1 mark                                                                                                [3]

**(ii)** Reasons for increase in life expectancy such as:
better treatment of diseases/or examples/drugs/medicines;
inoculation against diseases/vaccines;
improved health care facilities/or examples/hospitals/clinics;
training/availability of doctors/nurses;
investment in care homes/services for elderly;
pensions;
better water;
good sanitation;
better food supply/diet;
decreasing crime rates/better security etc.
Reasons for decrease in life expectancy such as:
(Civil) war/conflict/increasing crime rates;
Famine/not enough food;
AIDS/sexually transmitted diseases/epidemics;
Drought;
Economic failure etc.

5 @ 1 mark or development                                                            [5]

**(c)** Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing policies to reduce natural population growth rates.
(e.g. more contraceptives, government incentives to reduce: family size, one child policy etc.)

Level 2 ( 4–6 marks)
Uses named example (e.g. China).
More developed statements describing policies to reduce natural population growth rates.
(e.g. government issues free contraceptives, couples are fined if they have more than one child, free education for first child etc.)
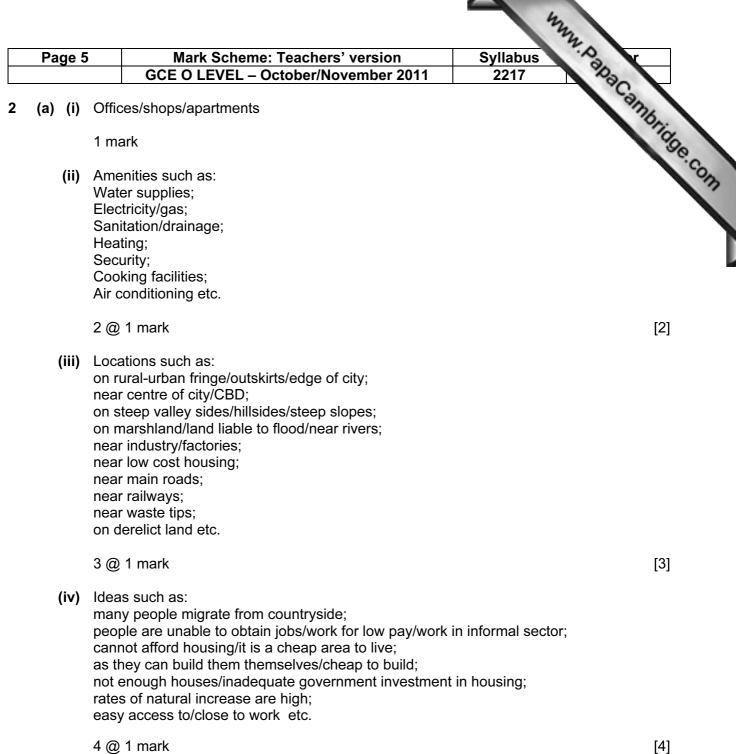
(NB MAX 5 marks if no named example or inappropriate example)

Level 3 (7 marks)
Uses named example (e.g. China).
Comprehensive and accurate statements describing policies to reduce natural population growth rates, including some place specific reference.
(e.g. government issues free contraceptives, one child policy, granny police keep an eye on couples and report people who have more than one child to the authorities, free education for first child etc.)

[Total: 25]

2   (a) (i)   Offices/shops/apartments

1 mark

   (ii)   Amenities such as:
          Water supplies;
          Electricity/gas;
          Sanitation/drainage;
          Heating;
          Security;
          Cooking facilities;
          Air conditioning etc.

          2 @ 1 mark                                                                                              [2]

   (iii)  Locations such as:
          on rural-urban fringe/outskirts/edge of city;
          near centre of city/CBD;
          on steep valley sides/hillsides/steep slopes;
          on marshland/land liable to flood/near rivers;
          near industry/factories;
          near low cost housing;
          near main roads;
          near railways;
          near waste tips;
          on derelict land etc.

          3 @ 1 mark                                                                                              [3]

   (iv)   Ideas such as:
          many people migrate from countryside;
          people are unable to obtain jobs/work for low pay/work in informal sector;
          cannot afford housing/it is a cheap area to live;
          as they can build them themselves/cheap to build;
          not enough houses/inadequate government investment in housing;
          rates of natural increase are high;
          easy access to/close to work  etc.

          4 @ 1 mark                                                                                              [4]

**(b) (i)** Problems such as:
Traffic congestion;
Atmospheric pollution;
Noise pollution;
Water pollution;
Not enough housing/high cost of housing;
Small/tightly packed/overcrowded houses;
Lack of open space/green spaces;
High unemployment;
Pressure on hospitals/education services;
High crime rates;
Visual pollution/visually unattractive;
waste disposal/litter etc.

3 @ 1 mark [3]

**(ii)** Ideas as appropriate to chosen problem:
e.g. Traffic congestion:
Pedestrianise areas;
Set up urban tramway;
So less people will use cars (dev);
Build metro system;
Build outer urban ring road;
So through traffic will not enter urban area (dev);
Install traffic lights/build roundabouts;
Congestion charging;
Increase cost of road duties/parking;
Provide more buses;
Decentralise services/workplaces;
Create off street parking;
Employ more traffic police;
Widen roads;
Only allow use of cars on certain days of week;
Allow only 1 car per family;
Car sharing;
Subsidise public transport;
Park and Ride;
Staggered office hours etc.

5 @ 1 mark or development [5]

**(c)** Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing a change in shopping facilities in a town or c
and/or advantages and/or disadvantages of the change.
(e.g. building new shopping centre, loss of farmland, easy to go shopping by car, competes
with businesses in centre, people can shop under cover, people have more choice of shops
etc.)

Level 2 ( 4–6 marks)
Uses named example.
More developed statements about advantages and/or disadvantages of the change, along
with some description of the change in land use.
(e.g. building new out of town shopping centre; traffic congestion as many people who use
new shopping centre travel by car, loss of farmland due to new shopping centre/road
construction, atmospheric pollution from increased traffic, easy to go shopping by car as out
of town centre has free car parking etc.)

(NB MAX 5 marks if no named example or inappropriate example)

Level 3 (7 marks)
Uses named example (e.g. Warsaw).
More developed statements about advantages and disadvantages of the change, including
some place specific reference, along with some description of the change in land use.
(e.g. building Arkadia shopping mall covering a total area of 287 000 $m^2$ the biggest shopping
mall in Central Europe, traffic congestion as many people who use new shopping centre
travel by car as there are 4000 free parking spaces, easy to go shopping as Arkadia is
served by 15 bus routes and 10 tram lines, offers people greater shopping choice including
Lacoste, Gant, Peek & Cloppenburg and Tommy Hilfiger, as well as high street chains like
Zara, Espirit and Kappahl etc.)

[Total: 25]

**3** **(a)** **(i)** C

1 mark

**(ii)** A. Gradient steeper in C than B;
B. Deeper in D than B.

2 @ 1 mark [2]

**(iii)** (Most deposition will occur in B or D as):
Low gradient (B or D);
It is unable to transport its load (B or D);
Speed of flow is reduced/lack of energy (B or D);
There are loose rocks/pebbles (B or D);
It floods often (B or D);
It is shallow (B);
The river is in its lower course (D);
Inner bend of meander (D);

3 @ 1 mark [3]

**(iv)** (traction) materials being pushed/rolled along river bed;
(saltation) materials being picked up by water and bounced along the bed/series of hops;
(suspension) materials carried/suspended within the water;
(solution) materials dissolved in the water;

4 @ 1 mark [4]

**(b)** **(i)** One mark for:
Shape of section showing depth;
River cliff labelled;
Slip off slope labelled etc.

3 @ 1 mark [3]

**(ii)** Ideas such as:
Erosion on outer banks of meander;
Due to faster speed of flow (dev);
Deposition in inner bend;
Narrows neck of meander;
Eventually cuts through/until they meet;
During time of flood (dev);
Ends of former meander sealed by deposition;
Former channel/meander becomes oxbow lake etc.

5 @ 1 mark or development [5]

**(c)** Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing advantages and/or difficulties of living on a flood plain.
(e.g. Good for agriculture/fertile soils; Water for irrigation; easy to build road/rail; source of food/fish; flat building land; flooding; instability of foundations; need to bridge rivers; competition for space etc.)

Level 2 (4–6 marks)
Uses named example
More developed statements describing advantages and/or difficulties of living on a flood plain.
(e.g. fertile soils therefore high crop yields; Water for irrigation enables cultivation in dry periods; easy to build road on flood plain; source of food/fish to vary diet; flat building land so construction is easy;
flooding may regularly damage homes; need to bridge river makes cost of road construction expensive; competition for space due to high population density etc.)

(NB MAX 5 marks if no named example or inappropriate example)

Level 3 (7 marks)
Uses named example (e.g. Ganges).
Comprehensive and accurate statements describing advantages and difficulties of living on a flood plain with place specific information.
(e.g. fertile soils therefore high rice yields; Water for irrigation enables cultivation when north east monsoon winds blow overland; easy to build road on flood plain; source of food/fish to vary diet; flat building land so construction is easy; flooding may regularly damage homes;
need to bridge river makes cost of road construction expensive; competition for space due to high population density etc.)

[Total: 25]

**4 (a) (i)** (moderate) chemical (weathering)

1 mark

**(ii)** −1 to 12 °C;
500–1700 mm
(NB Accept single figures or a range – units needed)

2 @ 1 mark                                                                                    [2]

**(iii)** Ideas such as:
heating of outer layers of rock;
expansion of rocks/minerals;
cooling of rocks/outer layers;
contraction of rocks/minerals;
outer layer peels/crumbles away etc.

3 @ 1 mark                                                                                    [3]

**(iv)** Ideas such as:
(hot/wet conditions) encourage chemical weathering;
doubles with every rise of 10 °C;
encourages more biological weathering;
as there is far more plant growth/lots of trees;
more likelihood of tree roots in cracks;
more rapid release of $CO_2$ from decay of plants etc.

4 @ 1 mark                                                                                    [4]

**(b) (i)** Ideas such as:
Features should ideally be evident from photographic evidence though some observations may be 'by implication'.
Ideas such as: bare rock surfaces/rocky;
rocks with joints/cracks;
rocks with layers/bedding planes;
steep/cliffs;
high land/mountainous;
scattered/clumps of vegetation;
scree/loose rocks;
flat top;
jagged/irregular rock face etc.

3 @ 1 mark                                                                                    [3]

**(ii)** Candidates should describe the process of freeze-thaw weathering. Cre
answers or information included as part of labelled diagrams (do not double cred
Expect ideas such as:
freeze thaw weathering;
rain collects in cracks/joints;
temperature falls;
below zero/water freezes expands;
stress on cracks/joints;
joints opened/rock split apart/bits fall off;
temperature increase;
release of pressure;
more water enters the joints/repetition etc.

5 @ 1 mark or development [5]

**(c)** Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing impacts of drought or tropical storms.
(e.g. people killed, crops destroyed, they have no water to drink, soils ruined, people move away etc.)

Level 2 (4–6 marks)
Uses named example
More developed statements describing impacts of drought or tropical storms.
(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 etc.)

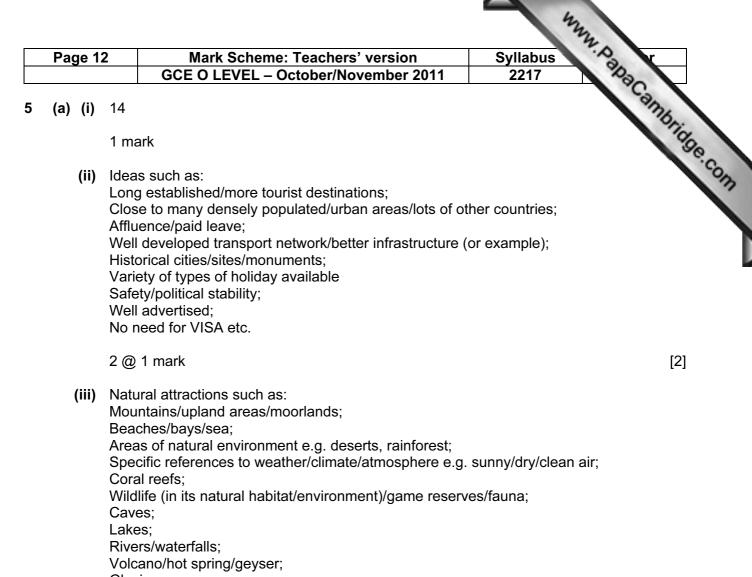(NB MAX 5 marks if no named example or inappropriate example)

Level 3 (7 marks)
Uses named example (e.g. Eritrea).
Comprehensive and accurate statements of drought or tropical storms, 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.)

[Total: 25]

**5 (a) (i)** 14

1 mark

**(ii)** Ideas such as:
Long established/more tourist destinations;
Close to many densely populated/urban areas/lots of other countries;
Affluence/paid leave;
Well developed transport network/better infrastructure (or example);
Historical cities/sites/monuments;
Variety of types of holiday available
Safety/political stability;
Well advertised;
No need for VISA etc.

2 @ 1 mark                                                                                                                    [2]

**(iii)** Natural attractions such as:
Mountains/upland areas/moorlands;
Beaches/bays/sea;
Areas of natural environment e.g. deserts, rainforest;
Specific references to weather/climate/atmosphere e.g. sunny/dry/clean air;
Coral reefs;
Wildlife (in its natural habitat/environment)/game reserves/fauna;
Caves;
Lakes;
Rivers/waterfalls;
Volcano/hot spring/geyser;
Glaciers;
Canyons/gorge/valley etc.

NB Attractions must be of different types (e.g. coastal, mountain) but could be named or the type stated (e.g. stack or Old Harry Rocks)

3 @ 1mark                                                                                                                    [3]

**(iv)** Ideas such as:
to go round/explore/see buildings/towns/places;
to photograph buildings/towns/places;
for rides/thrills;
religious pilgrimages

and/or built attractions such as:
cultural buildings/museums/opera house/theatre;
churches/cathedrals/mosques;
traditional/historical buildings/places/ruins;
castles/forts;
palaces;
monuments/statues/towers;
restaurants/bars/discos/night clubs/casinos;
theme parks/fairgrounds/water parks;
significant/unique buildings/architecture;
luxury hotels/resorts;
designer/luxury shopping/shopping malls/complexes etc.
dams;
sporting venues etc.

Examples not to be credited (e.g. La Scala = 0) however if an example is given it may contain a valid idea (e.g. La Scala **Opera House** = 1).

4 @ 1 mark [4]

**(b) (i)** Difficulties such as:
e.g. lack of airports/small airports:
insufficient hotels;
water supply infrastructure is poor/lack of rain in Jan/Feb;
lack of up to date sanitation system;
poor electricity network;
large animals are not common;
wet season may put off tourists from June – Sept etc.
poor road network;
poor railway system;
no coastline/beaches;
people have no experience with tourists/language difficulties/resistance from local people;
need for finance/possibility of debt etc.

3 @ 1 mark [3]

(ii) Ideas such as:
*Benefits:*
People can earn money/jobs are created for local people example (to MAX 2);
foreign exchange/boosts economy/brings money into country;
multiplier effect;
people learn new skills;
enabling spending on education/hospitals etc. (to MAX 2);
development of infrastructure (water, electricity, transport etc.) (to MAX 2);
cultural exchange/learn language;
retention of culture/traditions;
increased market for local farmers;
sales of local craft items;
locals can use tourist attractions
*Disadvantages:*
increase in local traffic/congestion/atmospheric pollution
from traffic;
loss of local culture/traditional way of life;
impact of behaviour of tourists/drunkenness etc.;
tourism may encourage illegal activity e.g. gambling, prostitution;
noise from tourists;
exploitation/low paid jobs/long hours;
seasonal work;
shortage of water supplies;
litter from tourists;
lack of privacy;
loss of farmland for building;
increase in price of goods/services;
loss of money to foreign firms/MNCs;
highest paid jobs go to foreigners;
displacement of local people;
dependency on tourism may be a problem in times of recession etc.

NB MAX 3 on benefits/disadvantages

5 @ 1 mark or development                                                    [5]

**(c)** Levels marking

Level 1 (1–3 marks)
Statements including limited detail describing how tourism is damaging the natural environment.
(e.g. vegetation destroyed/plants killed, animals killed, fumes from exhausts/traffic; over use of water, litter from tourists on beaches; waste from hotels, damages ecosystems, loss of habitats etc.)

Level 2 (4–6 marks)
Uses named example
More developed statements which describe how tourism is damaging the natural environment.

(e.g. sand dune vegetation destroyed; ecosystems threatened as food chains disrupted; loss of habitats threatens species; noise from construction/traffic scares animals away; fumes from exhausts/traffic damages roadside vegetation, over use of water supplies lowers water table; litter from tourists on beaches/in sea may kills sea turtles; waste from tourists dumped on landfill sites causes seepage of toxins into water table etc.)

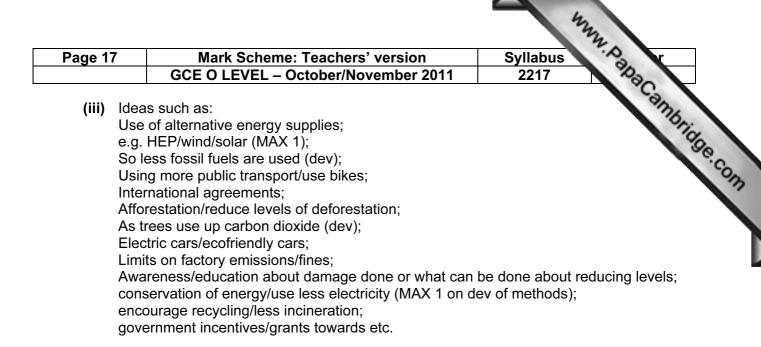(NB MAX 5 marks if no named example or inappropriate example)

Level 3 (7 marks)
Uses named example (e.g. Villingili, Maldives).
Comprehensive and accurate statements including some place specific reference.
(e.g. tropical coconut palms destroyed for building of hotels; ecosystems threatened as food chain disrupted, loss of habitats for lizards; ferry every 10 minutes from Male pollutes seas, noise from construction/traffic scares animals away; litter from tourists on beaches/in sea may kills reef fish; waste from tourists incinerated polluting atmosphere, coral reefs destroyed by tourists trampling on them/taking samples home.

[Total: 25]

**6** **(a)** **(i)** A cause of pollution/origin of the pollution/where pollution comes from/thi̵̵̵̵̵ pollute the environment

1 mark

**(ii)** A. fumes from crop spraying/herbicides/insecticide/emissions from machinery/methane from cattle dung/slash and burn/burning stubble/smell from manure etc.;

B. fumes from exhausts/carbon dioxide emissions from cars etc.

2 @ 1 mark                                                                                                    [2]

**(iii)** Problems for people such as:
Asthma/breathing difficulties;
Contamination of drinking water/water borne diseases/cholera;
(Too much noise) prevents sleep/concentration etc.;
Unpleasant ugly buildings/aesthetically unattractive/spoils the view;
Fish are killed so people have less food;
Acid rain damages buildings etc.

3 @ 1 mark                                                                                                    [3]

**(b)** **(i)** Ideas such as:
Maldives is low land/all below 2 metres above sea level;
danger of flooding/rising sea level/it could be submerged;
small island communities at risk/all the country/island will be flooded;
coral reefs will be damaged;
tourist industry will be destroyed etc.

3 @ 1 mark                                                                                                    [3]

**(ii)** Ideas such as:
there will be less carbon dioxide in the atmosphere/emitted;
carbon dioxide is a greenhouse gas;
reducing it will make the blanket of gases thinner;
so less heat is trapped;
so rise in temperature will be slowed down/temperature decreased etc.

(NB Accept ideas expressed as inverse)

4 @ 1 mark or development                                                                        [4]

(iii) Ideas such as:
Use of alternative energy supplies;
e.g. HEP/wind/solar (MAX 1);
So less fossil fuels are used (dev);
Using more public transport/use bikes;
International agreements;
Afforestation/reduce levels of deforestation;
As trees use up carbon dioxide (dev);
Electric cars/ecofriendly cars;
Limits on factory emissions/fines;
Awareness/education about damage done or what can be done about reducing levels;
conservation of energy/use less electricity (MAX 1 on dev of methods);
encourage recycling/less incineration;
government incentives/grants towards etc.

5 @ 1 mark or development                                          [5]


(c) Levels marking
<u>Level 1</u> (1–3 marks)
Statements including limited detail describing causes and/or effects of water pollution.
(e.g. kills fish, sewage disposal, oil spillages, pollutes beaches etc.)

<u>Level 2</u> (4–6 marks)
Uses named example
More developed statements describing causes and/or effects of water pollution.
(e.g. kills fish as oil clogs up their gills, disposal of untreated sewage from large urban areas, oil spillages from tankers washing out their tanks, pollutes beaches so reduces numbers of tourists etc.

(NB MAX 5 marks if no named example or inappropriate example)

<u>Level 3</u> (7 marks)
Uses named example (e.g. North Sea).
Comprehensive and accurate statements describing causes and effects of water pollution including some place specific reference.
(e.g. kills fish as oil clogs up their gills, disposal of untreated sewage from large urban areas such as Rotterdam along Dutch coast, oil spillages from tankers in Thames estuary washing out their tanks, pollutes beaches along the Essex coast so reduces numbers of tourists, pollutants washed into North Sea from heavily polluted rivers such as Rhine. etc.)

[Total: 25]