GradeMax

Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

GEOGRAPHY **0460/12**

Paper 1 **May/June 2018**

MARK SCHEME

Maximum Mark: 75

Published

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.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

IGCSE™ is a registered trademark.

This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

© UCLES 2018

GradeMax

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

© UCLES 2018

GradeMax

Question	Answer	Marks
1(a)(i)	Many/large numbers/lots of people live in a small area/per square kilometre/in relation to size of area;	**1**
1(a)(ii)	1166 (million) Divided by 30.22 (million) 1 mark = 38.58 (per sq. km) 1 mark	**2**
1(a)(iii)	Ideas such as : It is uneven; Areas of highest density are on west (coast)/small part of W.Africa/in Nile Valley/north east; Areas which are sparsely populated are in north/south west/Sahara/Kalahari Deserts; Areas which are moderately populated are the remainder/most of the continent/around the equator/much of centre and south/east/northern coast; 3 @ 1 mark	**3**
1(a)(iv)	Ideas such as: Areas of low/flat land are densely populated/attract lots of people to live there/are easy/difficult to build on (or other reason)/high land is sparsely populated; Areas where amounts of rainfall are low/deserts/arid areas/high rainfall are sparsely populated/attract few people to live there; Areas with extremely low temperatures/Arctic are sparsely populated/temperate areas attract lots of people; Areas with dense vegetation/rainforests have few people living there; Rivers/water sources/aquifers attract people/swampy attract few people; Fertile soils attract/infertile are sparsely populated; Note: Looking for natural factors 4 @ 1 mark	**4**
1(b)(i)	Ideas such as Male has: Buildings which are closer together; More high rise buildings/buildings with more storeys/larger buildings; Less areas of vegetation/open space/buildings in Male and open space in Maamendhoo etc. Note: Must be comparative 3 @ 1 mark	**3**

© UCLES 2018

GradeMax

Question	Answer	Marks
1(b)(ii)	Ideas such as: Lack of/pressure on resources; Lack of employment/work; Poverty; Pressure on/lack of food supply/high food prices/less land for agriculture; Pressure on/lack of health care/hospitals; Poor access to housing/shelter/overcrowded housing/high price of housing; Lack of water supply; Inadequate sanitation; Pressure on education services; Traffic congestion/a lot of traffic; Atmospheric pollution/water pollution/noise pollution; Pressure on electricity/energy/fuel supplies; Waste disposal; Lack of open space/greenery; 5 @ 1 mark or development	**5**

© UCLES 2018

GradeMax

Question	Answer	Marks
1(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which explain the causes of migration from a country. e.g. better paid jobs/example of job =L1 Level 2 (4–6 marks) Uses named example. More developed statements which explain the causes of migration from a country. e.g. better paid jobs and so can afford to send children to school Note: Can accept valid statistics as 1× L2 for this question (Note: Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements including some place specific reference. Content Guide: Country chosen can be any a country which migrants move from. Note: Named country must be where they move from Answers are likely to refer to pushes or pulls such as: • Lack of employment • Poverty • Poor food supply • Poor provision of health care • Lack of water supply • Natural disasters • Wars/conflict • Persecution • Poor provision of education • Crime • Border controls Etc. Note: Accept pushes and pulls but do not double credit. Place specific reference is likely to consist of: Named parts of the chosen country of origin, statistical data etc.	**7**

© UCLES 2018

GradeMax

Question	Answer	Marks
2(a)(i)	Some people are rich whilst others are poor/there are variations in wealth/standards of living/opportunities/appropriate examples e.g. housing or cars;	**1**
2(a)(ii)	Ideas such as: Air pollution could make breathing difficult/causes asthma; Noise pollution could make it hard for people to concentrate/sleep/cause stress/headaches; Water pollution could cause water borne disease/cholera; Visual pollution could stop people selling homes/spoiling views; etc. Note: Both the type of pollution and the problem for people must be stated. 2 @ 1 mark	**2**
2(a)(iii)	Ideas such as: Population growth in cities/migration to cities/many people live there/high population density; Road network was not designed for large numbers of cars/roads are too narrow/not enough roads; Growth in car ownership/many people use cars; Many people commute/travel to centre at same time of day/rush hour/many workplaces centrally located; Inadequate public transport/cycle lanes/other examples; Roadworks/accidents; Many HGVs/delivery vehicles; 3 @ 1 mark	**3**
2(a)(iv)	Ideas such as: Lack of housing stock/not enough houses; Migration (to cities); Many people live in squatter settlements/build own houses; People cannot afford housing/poverty/lack of employment/housing or land expensive; Lack of building space; Old housing stock/in need of renovation/not maintained by landlords; etc. 4 @ 1 mark	**4**
2(b)(i)	Ideas such as: Housing demolished/less houses; Housing built; School built; Industry built; Roads blocked off/road closures; Adventure playground built; Car parks created; More open space; Etc. Note: Do not need before and after here. 3 @ 1 mark	**3**

© UCLES 2018

GradeMax

Question	Answer	Marks
2(b)(ii)	People may have lived in houses for many years; People have to move out; Some people do not want change/new people cause problems; Loss of community spirit; More traffic/traffic congestion; Danger for children going to nearby schools; More noise pollution from industry/schools; Air pollution from industries; Visual pollution from e.g. new buildings; New housing could be too expensive; Loss of jobs/change in employment; People feel land should have been used for something else or give example; Etc. Note: Accept problems as much as conflict. 5 @ 1 mark or development	**5**
2(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which explain the causes of internal migration. e.g. higher paid job=L1 <u>Level 2</u> (4–6 marks) Uses named example. More developed statements which explain the causes of internal migration. Note: Can accept valid statistics as 1× L2 for this question (Note: Max 5 if no named or inappropriate example) <u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements including some place specific reference. <u>Content Guide:</u> Answers are likely to refer to pushes or pulls such as: • Employment • Food supply • Provision of health care • Water supply • Natural disasters • Wars/conflict • Persecution • Provision of education etc. <u>Place specific reference is likely to consist of:</u> Named parts of the chosen country, statistical data etc.	**7**

© UCLES 2018

GradeMax

Question	Answer	Marks
3(a)(i)	17 km	**1**
3(a)(ii)	Cliff; Wave cut platform; 2 @ 1 mark	**2**
3(a)(iii)	Ideas such as: Alternating hard and soft rocks/discordant coastline; Hard rocks are more resistant to erosion/soft rocks are less resistant to erosion; Hard rocks form headlands/soft rocks form bay etc. 3 @ 1 mark	**3**
3(a)(iv)	Ideas such as: Bays are sheltered ; Refraction of waves may occur; Shallow water (friction caused by); Constructive waves/low energy waves; Deposition occurs/sediment builds up; 4 @ 1 mark	**4**
3(b)(i)	A = Sea wall B = Revetment C = Groyne 3 @ 1 mark	**3**
3(b)(ii)	Ideas such as: It/they reduce the power of the waves; Sea walls strengthen the cliffs Sea walls deflect waves; Gabions absorb wave energy; Gabions stabilise cliff; Revetments cause waves to break/stop waves breaking on beach; Erosion on revetment rather than on cliff; Groynes prevent removal of beach material/trap beach material; Groynes prevent longshore drift; Note: Not just a description of the methods but how they actually protect the coast. 5 @ 1 mark or development	**5**

© UCLES 2018

GradeMax

Question	Answer	Marks
3(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the conditions required for the development of coral reefs. Level 2 (4–6 marks) More developed statements which describe the conditions required for the development of coral reefs. Level 3 (7 marks) Note: 4 × L2 or 3 × L2 plus 1 × L1. Does not need place specific detail. Comprehensive and accurate description of the conditions required for the development of coral reefs, including relevant statistical detail. Content Guide: Ideas such as: Warm water; Water temperatures between 18–32 °C ; Shallow water; Not more than 50/60 metres deep; Clean/clear water; Free from sediment/diesel fumes/not polluted; Plentiful supply of oxygen in water; Plentiful supply of nutrients Such as plankton; Calm water; No strong currents/waves; PH is alkaline/basic; PH/8 or above ; Salty water; 35 g salt per1000 g water;	**7**

Question	Answer	Marks
4(a)(i)	1050 mm	**1**
4(a)(ii)	Temperature range of 17 °C = C Annual average of 3 °C = B 2 @ 1 mark	**2**

© UCLES 2018

GradeMax

Question	Answer	Marks
4(a)(iii)	Graph D = 1 mark (reserved) Reasons such as: High temperatures/above 20 °C/around 27or 28 °C; Low temperature range/same all year round; High rainfall; Rainfall all year round/above 140 mm per month; No seasons etc. Note: Wrong letter/no letter = no marks for answer. 3 @ 1 mark	**3**
4(a)(iv)	Ideas such as: On/near Equator/low latitude ; Overhead sun/high insolation/high angle of/direct sun; Rising air/convection/convectional rainfall; Low pressure; Large amounts of/more evaporation; Large amounts of/more transpiration etc. 4 @ 1 mark	**4**
4(b)(i)	Ideas such as : Sawmills; Roads; Cattle grazing/ranching/slaughterhouse; Settlements/towns/villages; Hydro electric dam 3 @ 1 mark	**3**
4(b)(ii)	Ideas such as protection of the rainforest will: Prevent extinction of species/death of animals/people; Prevents loss of habitat; Conserve ecosystems/maintain biodiversity; Ensure that food chains are not broken; Prevent flooding; Prevent soil erosion/infertile soil; Prevent desertification; Ensure locals keep producing food/ensures more food for locals; Ensure locals have building materials/homes/do not have to move to cities/rely on it to survive; Enable locals to continue hunter-gatherer lifestyles; Not destroy valuable medicines/undiscovered species; Prevent introduction of Western diseases; Tourism retained; Note: Reserve one mark on natural environment/people Accept value of protection and also problems caused by not protecting. 5 @ 1 mark or development	**5**

© UCLES 2018

GradeMax

Question	Answer	Marks
4(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe impacts of deforestation on the global natural environment and/or people who live in other parts of the world. Level 2 (4–6 marks) More developed statements which describe impacts of deforestation on the global natural environment and/or people who live in other parts of the world. Note: Can accept valid statistics as 1× L2 for this question Level 3 (7 marks) Comprehensive and accurate statements, which describe impacts of deforestation on the global natural environment and people who live in other parts of the world, including reference to places. Content Guide: Answers are likely to refer to: Impact on patterns of rainfall/drought; Impact on global temperatures/global warming; Reduction in oxygen; Increase in carbon dioxide levels; Greenhouse effect; Melting of ice sheets; Rising sea levels; Destruction of environments in polar areas; Extinction of species in other parts of world e.g. polar bears; Loss of medicines; Changing patterns of crops; Spread of pests e.g. mosquitoes etc.	**7**

Question	Answer	Marks
5(a)(i)	Best fit line on Fig.5.1	**1**
5(a)(ii)	There is a positive relationship/as one increases the other increases/use four figures to illustrate; However it is not perfect/anomalies/use figures to illustrate anomalies; 2 @ 1 mark	**2**

© UCLES 2018

GradeMax

Question	Answer	Marks
5(a)(iii)	Ideas such as: (With a higher GDP) more money can be spent on education/can afford to send children to school; Education is compulsory in most countries with high GNP; So skills are learned/people more qualified Earn more money/People become more productive; As a country develops farming becomes less important so children can attend school; As a country develops there is better access to health services so children can attend school; Note: Accept reverse ideas 3 @ 1 mark	**3**
5(a)(iv)	Ideas such as: It is a composite index/combines different indicators; Life expectancy at birth; Expected/mean years of schooling; GDP/GNI; An overall score is calculated between 0 and 1; The higher the score the more developed they are; Etc. 4 @ 1 mark	**4**
5(b)(i)	Ideas such: More (energy is used) in North America; More variation in Africa; Much of Africa is below 0.6/1 **and** North America is over 3/3.4 **or** 5/6 times more in North America; Etc. 3 @ 1 mark	**3**
5(b)(ii)	Less/more people live there/varying population size; Some countries have more energy resources; e.g. oil, coal etc.; Some countries/people can't afford energy/can't afford to develop energy supplies; Lack of technology; Energy/electricity supply is available throughout the country; Using more electronic devices/home appliances; Some countries are more industrialized/have more factories; Eg manufacturing industry is likely to use large amounts of energy; Some countries use more transport/have more cars; Eg car ownership is higher in MEDCs/more delivery by HGVs; Some countries use more energy travelling by plane/for leisure travel; Specified reference to impact of climate e.g. impact of air conditioning; etc. 5 @ 1 mark or development	**5**

© UCLES 2018

GradeMax

Question	Answer	Marks
5(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the importance of different types of energy sources. Eg oil=L1, coal=L1 etc. Level 2 (4–6 marks) Uses named example. Statements which describe and explain the importance of different types of energy sources. E.g. wind is renewable=L2; solar energy is cheaper in the long run; Note: Do not accept statistics as a L2 for this question, as it does not explain the importance and so is not a L2 statement. (**Note:** Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which describe and explain using place specific references such as statistics. Note: Max. 2 × L2s for each energy source. Do not double credit explanations eg renewable. Content Guide: Methods are likely to include: Fossil fuels Renewable energy Nuclear power etc. Place specific reference is likely to consist of: Locational details; Names of places within chosen country	**7**

Question	Answer	Marks
6(a)(i)	The business of providing services such as transport, places to stay, or entertainment/making money from… people who are on holiday/visitors;	**1**
6(a)(ii)	Physical attraction = lake/wild animals (or example)/Crocodile Creek; Human attraction = rock paintings/lodges/restaurant/yacht club/campsite/hotel/cabin/Lion & Cheetah Park/Rhino Drive/Impala Drive; 2 @ 1 mark	**2**

© UCLES 2018

GradeMax

Question	Answer	Marks
6(a)(iii)	Ideas such as: Buildings have been built/examples e.g. restaurants/yacht clubs/hotels; Vegetation has been cleared; Fences erected; Roads/drives/tracks/bridges built Etc. 3 @ 1 mark	**3**
6(b)(i)	To protect wildlife from dogs; To stop animals being killed by traffic; To prevent the landscape/vegetation/wildlife from being destroyed by off-road vehicles; To prevent poachers from killing wildlife/protect wildlife from being shot; To prevent litter; To prevent animals being scared; 3 @ 1 mark	**3**
6(b)(ii)	Ideas such as: Jobs/employment/example of/earn money from; Income for local businesses/restaurants/farmers/shops/sales of products; Taxes/money/forex used to improve hospitals/schools etc Development of electricity supply/water supply; Improvement of transport network/roads; Cultural exchange/learn about other cultures; Increased price of land for landowners; Etc. 4 @ 1 mark	**4**
6(b)(iii)	Ideas such as: Loss of farmland; Loss of homes/living space/land more expensive/cannot afford to live there; Inflation/increase in prices; Seasonal employment; Low wages/exploitation of workers; Noise; Litter; Traffic congestion/lot of traffic; Air pollution leads to breathing difficulties; Sea pollution so fishermen cannot fish; Visual pollution spoils view; Vandalism/graffiti; Dilution of culture/Westernised/cultural insensitivity; Drunken/disrespectful/rude behaviour/racism of tourists; Lack of privacy/personal space; Can’t access private tourist areas; Less water supply for locals; Etc. 5 @ 1 mark or development	**5**

© UCLES 2018

GradeMax

Question	Answer	Marks
6(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe methods used to supply water. Level 2 (4–6 marks) Uses named example. More developed statements which describe methods used to supply water. Note: Do not accept statistics as a L2 for this question, as it does not describe the methods used and so is not a L2 statement. (**Note:** Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements, including some place specific reference. Content Guide: Methods are likely to include: Reservoirs; Extraction from aquifer; Rivers; Wells; Desalination; Pipes; Tankers; Importing water/buying water; Water treatment plants; etc. Note: Is water supply not saving water Place specific reference is likely to consist of: Locational details; Names of places/species within chosen country Specific details of methods	**7**

© UCLES 2018