Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/12**

Paper 1 **March 2020**

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.

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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.

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Question	Answer	Marks
1(a)(i)	Birth rate – death rate ± net migration	**1**
1(a)(ii)	Mali…Ethiopia…Canada…Brazil All correct = 2 marks 2/3 correct = 1 mark 2 × 1 mark	**2**
1(a)(iii)	Ideas such as: Clustered/close together/uneven; In northern hemisphere/north of Equator/north; Eastern Europe; Northern Asia; (or one mark overall for Europe **and** Asia as an alternative to Eastern Europe and Northern Asia); Any two named countries (e.g. Russia, Germany, Ukraine, Belarus, Latvia, Romania, Lithuania) 3 × 1 mark	**3**
1(a)(iv)	Ideas such as; DR exceeds BR; People choose to have small families/cannot afford large families/choose careers over children/many women have careers; Much/a lot of outward migration/negative net migration/more emigration than immigration; High rates of HIV/AIDS; alcohol abuse/smoking, etc. 4 × 1 mark	**4**
1(b)(i)	*Pensions:* People no longer need children to look after them in old age. *Equality for women:* (Women are able to get educated) so they focus on careers rather than bringing up large families/women have a say in how many children they have/women can choose to have abortions (or use family planning) *Improved health care*: (Reduces infant mortality) so parents don`t need to have several babies in case some die/availability of abortion 3 × 1 mark	**3**

Question	Answer	Marks
1(b)(ii)	Ideas such as: Use anti-natal policies; E.g. one child policy; Offering incentives for people who follow the policy/have less children; Specific example of an incentive – e.g. free education/health care); Set penalties for people who do not follow the policy/have too many children; Specific example of a penalty – e.g. fines, increased taxation; Forced abortions/sterilization/legalise abortion; Provide free family planning/contraception/make contraception affordable; Propaganda/advertise/education about benefits of fewer children/ of contraception; Encourage later marriage; Reduce numbers of immigrants allowed into the country, etc. 5 × 1 mark or development	**5**
1(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which explain the causes of migration from one country to another. <u>Level 2</u> (4–6 marks) Uses named example. More developed statements which explain the causes of migration from one country to another. (**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: • employment • health care • education • political issues • natural disasters • lack of food • war, etc. Accept pulls or pushes but no double credit <u>Place specific reference is likely to consist of:</u> Named parts of the chosen country, Population data. Etc.	**7**

Question	Answer	Marks
2(a)(i)	How the land is used in a town or city.	**1**
2(a)(ii)	*Similarities* such as: Both have a Central Business District/business district in the centre/there is some high class residential at edge in both/there is some industry at centre in both; Both have the same land uses (or example – industry, residential); *Differences* such as: A has concentric zones but B is in wedges; A has high class housing at the edge of the city but B has a zone stretching from the centre to the edge/wedge; A has factories all round the city but B does not have any to the east/has them in a wedge; CBD is surrounded by factories in A but different types of land use surround CBD in B; Less high class residential in B; More industry/medium residential in B, etc. 2 × 1 mark	**2**
2(a)(iii)	Ideas such as: X are low class/Y are high class; X are likely to be older; X are likely to be tightly packed/Y will have more space/X has higher population density; X are more likely to be apartments/high rise//terraced but Y will be detached/semi-detached; X likely to be cheaper/Y more expensive; Smaller house in X/larger houses in Y; X less likely than Y to have gardens/drives/parking spaces, etc. 3 × 1 mark	**3**
2(a)(iv)	Ideas such as: Many areas near the CBD are old/in need of repair; Heavy industry may have shut down/moved elsewhere/disused factories; Slum clearance is taking place/housing lacks amenities; Road building schemes/inner ring roads/urban motorways/need to manage traffic flow/reduce traffic congestion/creation of car parking; Use of land for industrial estates/retail parks, etc. 4 × 1 mark	**4**
2(b)(i)	Ideas such as: High rise buildings/c.7 storeys; High density/buildings are close together; Commercial buildings/businesses/offices/shops/hotels; Pedestrianized area/public spaces/large open are/city square/green areas; Monuments/statues; Adverts/billboards, etc. 3 × 1 mark	**3**

Question	Answer	Marks
2(b)(ii)	Ideas such as: Inadequate road network/narrow roads/not enough roads; Roads were not designed for the number of vehicles using them; There is limited space to build roads; Not enough off street parking/parked cars cause obstructions; Lack of/people don`t use public transport; Car ownership is increasing; Many people commute to work; Focus of commercial activity/many people travel to shops/businesses in CBD/deliveries to businesses there; Population increasing so there are more cars used; Poor traffic management/lack of investment in road building/public transport schemes, etc. 5 × 1 mark or development	**5**
2(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which describe the strategies used to reduce traffic congestion. <u>Level 2</u> (4–6 marks) Uses named example. More developed statements which describe the strategies used to reduce traffic congestion. (**Note:** Max 5 if no named or inappropriate example) <u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements which describe the strategies used to reduce traffic congestion, with some place specific reference. <u>Content Guide:</u> Answers are likely to refer to ideas such as: New road building, Investment in public transport, Cycle lanes, Park and Ride, Congestion charging, etc. <u>Place specific reference is likely to consist of:</u> Locational details, Specific details of the schemes, Named parts of urban areas, etc.	**7**

Question	Answer	Marks
3(a)(i)	oktas	**1**
3(a)(ii)	Fig. 3.1 Cumulus Fig. 3.2 Stratus Fig. 3.3 Cirrus All correct = 2 marks 1 or 2 correct = 1 mark 2 × 1 mark	**2**
3(a)(iii)	*3.1 (Cumulus):* Middle level/or correct height statistic; Puffy/like cotton wool; White; Flat base; Broken up/discontinuous, etc. *3.2 (Stratus)* Low level/or correct height statistic/close to ground/not at a high altitude; Complete cover/fills most of sky/close to each other/sunlight can`t get through; Grey Likely to bring rain/carry lots of moisture/rain clouds, etc. *3.3 (Cirrus)* High level/or correct height statistic; Wispy/feathery; Long and thin; Formed of ice crystals etc 3 × 1 mark	**3**
3(a)(iv)	Ideas such as: Observe them/by observation/look at/photograph clouds/sky/look straight up/by eye Identify type using book/diagrams/ID chart/by considering vertical extent/shape/colour; Estimate the number of eighths of sky which is covered by cloud/cloud cover/use a transparent grid divided into sections; Repeat every day/at same time of day/set times/given times (or examples)/every few hours/several times per day; Record on chart/table/diary, etc. 4 × 1 mark	**4**

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Question	Answer	Marks
3(b)(i)	Ideas such as: Read off temperature of wet and dry bulb/compare wet and dry bulb temperatures; Work out difference between wet and dry bulb temperatures/ depression of wet bulb/dry bulb minus wet bulb temperature; Use (relative humidity) table; Read off figure point where wet bulb depression/difference between wet and dry bulb temperatures intersects dry bulb temperature, etc. 3 × 1 mark	**3**
3(b)(ii)	Ideas such as: *Temperature:* falls from 00:00/14:00 to 07:00; rises from 07:00 to 14.00 (or times within this period) *Relative humidity*: Rises from 18:00/00.00 to 07.00 Falls from 07:00 to 18.00 (or times within this period) Accept `is high at… but low at` or vice versa as alternative for rises/falls) When temperature increases relative humidity decreases (or vice versa) – 1 mark. No statistics mark. Credit development marks for reference to relative rates or change, with correct time frames 5 × 1 mark or development	**5**
3(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which describe and/or explain the climate of a hot desert. <u>Level 2</u> (4–6 marks) Uses named example. More developed statements which describe and/or explain the climate of a hot desert. (**Note:** Max 5 if no named or inappropriate example) <u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements which describe and explain the climate of a hot desert, including some place specific reference.	**7**

Question	Answer	Marks
3(c)	Content Guide: Answers are likely to refer to: High temperatures, Diurnal temperature range Seasonal change Low precipitation, Low humidity, Latitude, Descending air, high pressure, wind direction, cold currents, rain shadow; overhead sun, etc. Place specific reference is likely to consist of: Locational details, named places within the desert, Hadley Cell, Statistical detail, etc.	

Question	Answer	Marks
4(a)(i)	Area of high land/ridge surrounding a drainage basin/between two drainage basins/the area which separates drainage basins from each other	**1**
4(a)(ii)	On Fig. 4.1 2 × 1 mark	**2**
4(a)(iii)	Ideas such as: X narrower/Y wider; X steeper sides/Y more gently sloping sides/flatter; X more V shaped; Y more likely to have a flood plain, etc. 3 × 1 mark	**3**
4(a)(iv)	Benefits such as: Flat land; Fertile land/land for agriculture/grazing; Ease of transport along valley/flood plain/along river; Availability of drinking water/water for washing, etc. Water for irrigation; Fishing; Water power/HEP/water for industry; Scenic beauty; Work in tourist industry, etc.	**4**

Question	Answer	Marks
4(a)(iv)	Problems such as: Flooding/or any one impact of flooding; Difficulty of crossing/bridging river; Erosion of land; Mosquitoes/malaria risk/crocodiles/alligators etc 2 marks for each of benefits and problems. 4 × 1 mark	
4(b)(i)	Ideas such as: Curved/oxbow lake/C shape/horseshoe shape/crescent shape; Orientated from north to south/NE to SE; 500 – 600 metres long; 100 metres wide/less than 100 metres wide; Narrower at north end than south; Long **and** thin, etc. 3 × 1 mark	**3**
4(b)(ii)	Ideas such as: Erosion on outer bends of meander; Hydraulic action/abrasion/helicoidal flow (or description) Due to faster flow on outside; Neck of meander narrowed; Meander becomes more extreme/sinuous/tighter River cuts through neck/cuts off meander/meander becomes separated from river; During time of flood; Former meander sealed by deposition, etc. 5 × 1 mark or development	**5**
4(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which describe the features of a delta and/or explain its formation. <u>Level 2</u> (4–6 marks) Uses named example. More developed statements which describe the features of a delta and/or explain its formation. <u>Level 3</u> (7 marks) Comprehensive and accurate statements which describe the features of a delta and explain its formation.	**7**

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Question	Answer	Marks
4(c)	Content Guide: Answers are likely to refer to: Shape, Distributaries, Flat land, Vegetation, Alluvium/silt, Speed of flow, Sediment load, Deposition, Flocculation, Lack of tides, etc.	

Question	Answer	Marks
5(a)(i)	Beaches	**1**
5(a)(ii)	Ideas such as: sanctuary; National Park; Elephant orphanage; Safari park 2 × 1 mark	**2**
5(a)(iii)	Ideas such as: SW/West coast; North/NNE of Colombo; 10/20 km from Colombo; East of E3/Colombo-Katunayake Expressway; Between Colombo and Negombo, etc. **Note:** Accept correct distance/direction from appropriate named settlements (e.g. Negombo) 3 × 1 mark	**3**
5(a)(iv)	Ideas such as: Building/expansion of airport; Construction of/improvement of roads/Colombo-Katunayake Expressway ; Railway construction/expansion; Installation of electricity grid; Improved water supply/piped water; Improvements to sewage system; Improvement to telecommunications; Increased internet availability, etc. 4 × 1 mark	**4**

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Question	Answer	Marks
5(b)(i)	*2002 to 2009* Slow rise from 2002 to 2004 and slow decline from 2006 to 2008/little change between 2002 and 2009/slight rise and fall /small fluctuations/no overall change/slight overall rise; *2009 to 2016* Rapid/continuous/steady rise *2016 to 2017* Small increase/rate of increase becomes lower, etc. 3 × 1 mark	**3**
5(b)(ii)	Ideas such as: The tourist industry is seasonal/or example (e.g. skiing season/cherry blossom); It is dependent on weather/more tourists are likely to visit when it is sunny/dry/warmer; Tourists will avoid times when there are hazards/Monsoon seasons/natural disasters (or example); Tourism may increase over time due to building of airports; Resort development/development of attractions will attract more tourists; Tourism will be affected by fluctuations in the economy/recession/high unemployment in a tourist generating country will reduce numbers/variation in peoples income over time; Numbers will be reduced by terrorism/political unrest; Impact of festivals/special events; Impact of viruses/health scares or example; Advertising/publicity; Holiday patterns/school holidays/national holidays, etc. 5 × 1 mark or development	**5**
5(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which describe the disadvantages of the tourist industry for local people. <u>Level 2</u> (4–6 marks) Uses named example. More developed statements which describe the disadvantages of the tourist industry for local people. (**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.	**7**

Question	Answer	Marks
5(c)	Content Guide: Answers are likely to refer to disadvantages such as: inflation, traffic congestion, pressure on water/electricity supplies, loss of farmland, loss of culture, visual impact, negative impact to fishing communities due to water pollution, noise, loss of privacy, etc. Place specific reference is likely to consist of: Locational details/named locations within area chosen, etc.	

Question	Answer	Marks
6(a)(i)	Potatoes/oil seed rape	**1**
6(a)(ii)	Barley Wheat 2 × 1 mark	**2**
6(a)(iii)	*Demand for barley decreased between 1974 and 2014* Less barley was grown/less fields were planted with barley/barley fields used for wheat *The farmer kept animals in 1974 but not in 2014* There was pasture/grazing land in 1974 but there was no pasture in 2014/area of pasture reduced *The price of wheat increased between 1974 and 2014* More wheat was grown (in 2014 than 1974)/more land used for growing wheat 3 × 1 mark	**3**
6(a)(iv)	Ideas such as: Cutting down trees/woodland/decreased area of woodland; Piping stream underground/removed stream; Removal of field boundaries/created larger fields; Removed farm buildings from in field etc 4 × 1 mark	**4**
6(b)(i)	Arable Commercial Intensive 3 × 1 mark	**3**

Question	Answer	Marks
6(b)(ii)	*Inputs*: Fertile soil Flat land 90 hectares of land Machines (or example) Seeds Labour/workers Fertilizers Pesticides Greenhouses water *Processes:* Drainage of water from land Planting Harvesting Applying fertilizer Spraying pesticides Irrigation ploughing *Outputs:* Flowers Wheat Potatoes Sugar beet Allow 1 mark for any **two** items marked in correct sections. 5 × 1 mark	**5**
6(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which identify natural factors which can cause food shortages. <u>Level 2</u> (4–6 marks) More developed statements which explain how natural factors can cause food shortages. (**Note:** Max 5 if no named or inappropriate example) <u>Level 3</u> (7 marks) Comprehensive and accurate statements, including some place references. <u>Content Guide:</u> Answers are likely to refer to: drought, flooding, tropical storms, pests, disease, infertile soils, etc.	**7**

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