## Cambridge IGCSE ${ }^{\text {M }}$

GEOGRAPHY
0460/11
Paper 1
October/November 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.
Cambridge International is publishing the mark schemes for the October/November 2020 series for most Cambridge IGCSE ${ }^{\text {TM }}$, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

## 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.

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 where a mark has been allowed. Where a development point has been allowed the symbol 'DEV' should be placed adjacent to the tick. The number of ticks should always be equal to the total number of marks awarded. Only one development mark for each mark scheme point please.

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 (i.e. the candidate has 'just' achieved the mark).

Crosses are acceptable to signify wrong answers and the letters 'I/R' should be used to indicate those which are irrelevant.

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 has 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 L 2 - in addition his/her answer should have a clear example and if the answer is place specific as well (7 marks). Highlight place specific detail.

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. L1 annotation should be removed once a L2 is awarded for an answer. L3 annotation is not used. There is no need for a summary level at the end of a response.

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

| Question | Answer | Marks |
| :---: | :---: | :---: |
| 1(a)(i) | Shading of Florida on Fig. 1.1 | 1 |
| 1(a)(ii) | California Texas Colorado Montana <br> All correct $=2$ marks <br> $2 / 3$ correct $=1$ mark <br> 1 correct = 0 <br> 2 @ 1 mark | 2 |
| 1(a)(iii) | Ideas such as: <br> Uneven/clustered; <br> Many are coastal (states)/bordering ocean/Great Lakes; <br> East/North East; <br> West/South West; <br> 3 @ 1 mark | 3 |
| 1(a)(iv) | Ideas such as; <br> (More) economically developed areas/stable economy tend to be densely populated/more people/lack of economic development may result in sparse population; <br> Work/jobs/industry/earn money attracts people; <br> Example of industry/work/income, e.g. <br> tourism/energy/mining/secondary/tertiary; <br> Economic development leads to increased accessibility; <br> Roads/railway lines/motorway built; <br> Ports/trade/imports/exports; <br> Healthcare/education improved to attract people/better healthcare; <br> Multiplier effect/investment; <br> Poverty may lead to high density housing/shanty towns; <br> 4 @ 1 mark <br> LEDC/MEDC <br> Note: Can refer to sparse/dense but no double credit of ideas. | 4 |
| 1(b)(i) | Ideas such as: <br> Areas of highland are sparsely populated/few live there/lowland densely populated/the greater the height the lower the density; (Western part of US) over 2000 metres with low population density; (Much of eastern part) under 500 metres with high population density; Exceptions eg parts of California high relief but dense population, etc. <br> 3 @ 1 mark | 3 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 1(b)(ii) | Ideas such as: <br> Comparison of total rainfall; <br> Comparison of rainfall distribution/pattern; <br> Description of rainfall regime, e.g. arid compared with high rainfall; <br> Therefore farming...; <br> Therefore water supply...; <br> Therefore industry/power...; <br> Temperature comparison, e.g. higher in New Mexico <br> Therefore difficult to live in/prefer lower temperatures etc; Comparative statistics with units 1 MAX <br> 5 @ 1 mark or development | 5 |
| 1(c) | Levels marking <br> Level 1(1-3 marks) <br> Statements including limited detail which describe the problems caused by a high dependent population. <br> Level 2(4-6 marks) <br> Uses named example. <br> More developed statements which describe the problems caused by a high dependent population. <br> (Note: Max 5 if no named or inappropriate example) <br> Level 3(7 marks) <br> Uses named example. <br> Comprehensive and accurate statements which describe the problems caused by a high dependent population including some place specific reference. <br> Content Guide: <br> E.g. old dependent <br> Answers are likely to refer to: <br> High dependency rate <br> Stress on working population <br> Increased taxation <br> Lack of workforce <br> Need to provide pensions <br> Lack of innovation <br> Difficulty recruiting armed forces <br> Pressure on healthcare <br> Under use of facilities for young people/closure of schools etc <br> Positive effects $=0$ <br> Place specific reference is likely to consist of: <br> Named parts/settlements of the chosen country, <br> Population data, etc. | 7 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 2(a)(i) | Housing | 1 |
| 2(a)(ii) | Ideas such as provision of: Leisure/relaxation/recreation areas; Go for walks/dog walking or other examples, e.g. picnics; For people to play sport/sports fields; Woodland/flora and fauna/protect nature; Gardens/parks; Allotments/for growing food; To help clean the air/reduce air pollution; Visual impact within built up area; etc. <br> 2 @ 1 mark | 2 |
| 2(a)(iii) | Ideas such as Byker is likely to be: <br> Lower cost; <br> More dense/closer together; <br> Older; <br> Terraced compared with (semi) detached in Gosforth; Less likely to have garage/drive/garden/swimming pools; More likely to have redeveloped areas/e.g. high rise flats, etc. <br> NB Must be comparative. <br> 3 @ 1 mark | 3 |
| 2(a)(iv) | Ideas such as: <br> Proximity/near/next to River (Tyne); <br> Import (of raw materials)/export (of products)/transport bulky/heavy material; <br> Waste disposal; <br> Land is likely to be flat; <br> Water supply for cooling/as a raw material; <br> Close to A1/main road; <br> Transport to market/other parts of country/to get supplies; <br> Close to housing for labour supply; <br> Low cost land on rural-urban fringe, etc. <br> 4 @ 1 mark | 4 |
| 2(b)(i) | Ideas such as: <br> To provide housing; For industrial/business use; Example of other use eg schools/hospitals/shopping malls, etc.; <br> To create employment; <br> Boost (local) economy; <br> Lots of space/free space there/marginal land/waste land/land is in short supply closer to centre/land is not being used for other purposes; Land is cheap; Etc. | 3 |


| Question | Answer | Marks |
| :---: | :--- | :---: |
| 2(b)(ii) | Ideas such as people may agree because it: <br> Will improve visual environment; <br> Will provide employment; <br> In construction and in long term; <br> Multiplier effect/stimulates (local) economic growth/attracts other businesses; <br> People need more homes; <br> Businesses will be in easy reach of people living in suburbs/people will be <br> able to access named services, etc. | 5 |
| People may be opposed to it due to: <br> Increased traffic; <br> Noise; <br> Loss of amenity value; <br> Destruction of natural vegetation/deforestation; <br> Loss of habitat; <br> Loss of farmland; <br> Water/air pollution; <br> etc. |  |  |
| Note: Reserve 1 mark for each of agree/oppose <br> 5 @ 1 mark or development |  |  |


| Question | Answer | Marks |
| :---: | :--- | :---: |
| 2(c) | Levels marking <br> Level 1 (1-3 marks) | 7 |
|  | Statements including limited detail which describe and/or explain the <br> characteristics of the CBD. <br> Level 2 (4-6 marks) <br> Uses named example. <br> More developed statements which describe and explain the characteristics of <br> the CBD. <br> (Note: Max 5 if no named or inappropriate example) | Level 3 (7 marks) <br> Uses named example. <br> Comprehensive and accurate statements which describe and explain the <br> characteristics of the CBD with some place specific reference. <br> Content Guide: |
| Answers are likely to include reference to: <br> High rise, <br> pedestrianisation, <br> high density, <br> types and order of services/shops; <br> entertainment, <br> business use, <br> high pedestrian flows, <br> access, <br> land cost, <br> lack of land, etc. | Place specific reference is likely to consist of: <br> Locational details, <br> Named services/features, <br> Named areas/streets within the CBD, etc. |  |


| Question | Answer | Marks |
| :---: | :--- | :---: |
| 3(a)(i) | Wave cut platform | $\mathbf{1}$ |
| 3(a)(ii) | Ideas such as: <br> Low/at sea level/likely to be covered by high tide; <br> Flat/gently sloping; <br> (Bare) rock/rocky; <br> White/cream/grey; <br> Some loose rock material on it; <br> 2 @ 1 mark | $\mathbf{2}$ |
| 3(a)(iii) | Ideas such as: <br> Erosion of line of weakness/joint in cliff; <br> Development of cave; <br> Back to back caves develop on either side, etc. <br> Erosion through headland/cliff/backs of caves meet; <br> Hydraulic action/abrasion/corrosion or description; <br> Etc. | 3 @ 1 mark |
| 3(a)(iv) | Ideas such as: <br> Differential erosion has taken place; <br> Different rock types outcrop along the coast/alternating hard and <br> soft/discordant coast; <br> Headlands likely to be harder rock/more resistant; <br> Hard rock will not have eroded as rapidly; <br> Bays likely to be softer/less resistant/unconsolidated rock; <br> Soft rock eroded more/rapidly; <br> 4 @ 1 mark | $\mathbf{4}$ |
| 3(b)(i) | Ideas such as: <br> On/at/near coast; <br> All around the island; <br> More/particularly on south coast; <br> Many are in//near/around bays; <br> And around the smaller island; <br> More/concentration/circular on south west; <br> Etc. <br> 3 @ 1 mark | 3 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 3(b)(ii) | Ideas such as: <br> Warm water/water/sea temperatures between 18-27 degrees C (accept figure within range); <br> Shallow water/not more than 50-60 metres deep (or any figure within this range); <br> Water free from sediment/clear/clean/not polluted; <br> Plentiful supply of oxygen in water; <br> Plentiful supply of plankton/nutrients; <br> Gentle waves/currents/slow moving/calm water; <br> Neutral/high pH/alkaline water; <br> Salty water; <br> Note: Use statistics for development <br> 5 @ 1 mark or development | 5 |
| 3(c) | Levels marking <br> Level 1 (1-3 marks) <br> Statements including limited detail which describe attempts to manage coastal erosion. <br> Level 2 (4-6 marks) <br> Uses named example. <br> More developed statements which describe attempts to manage coastal erosion. <br> (Note: Max 5 if no named or inappropriate example) <br> Level 3 (7 marks) <br> Uses named example. <br> Comprehensive and accurate statements which describe attempts to manage coastal erosion including some place specific reference. <br> Content Guide: <br> Answers are likely to refer to: <br> Sea walls, <br> groynes, <br> beach nourishment, <br> revetments, <br> gabions, <br> planting vegetation on cliffs, <br> draining cliffs, <br> managed retreat, etc. <br> coral reef erosion <br> Place specific reference is likely to consist of: <br> Locational details, <br> Places along coast, <br> Specific details/costs of methods, etc. | 7 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 4(a)(i) | C | 1 |
| 4(a)(ii) | Atmospheric pressure $=992 \underline{\mathrm{mb}}$ <br> Maximum temperature $=23 / 24{ }^{\circ} \mathrm{C}$ <br> 2 @ 1 mark | 2 |
| 4(a)(iii) | Ideas such as: <br> Read off wet and dry bulb temperatures; <br> Work out difference between wet and dry bulb; Use humidity table/chart; Observe where dry bulb temperature and difference between wet and dry bulb temperatures intersect on humidity table, etc. <br> 3 @ 1 mark | 3 |
| 4(a)(iv) | Diagram of wind vane/wind sock (1 mark); <br> Compass points: N,S,E,W. <br> Labelling of arrow/pointer; <br> Labelling of pole/roof/chimney/church or similar (showing wind vane is above ground level) <br> 4 @ 1 marks | 4 |
| 4(b)(i) | Painted white to reflect sun's rays/heat/absorbs less heat. <br> On legs so it is not affected by ground temperatures. <br> Made from wood so it does not absorb heat/retain heat/does not conduct heat <br> 3 @ 1 mark | 3 |
| 4(b)(ii) | Ideas such as: <br> In the open/away from buildings; <br> So that it is not affected by heat from buildings; <br> Away from trees; <br> So that it is not sheltered/to avoid being in the shade/shadow; <br> On grass; <br> Which does not absorb heat; <br> Away from the general public; <br> To avoid tampering/vandalism, etc. <br> 5 @ 1 mark or development | 5 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 4(c) | Levels marking <br> Level 1 (1-3 marks) <br> Statements including limited detail which explain why flooding has occurred. <br> Level 2 (4-6 marks) <br> Uses named example. <br> More developed statements which explain why flooding has occurred. <br> Level 3 (7 marks) <br> Uses named example. <br> Comprehensive and accurate statements which explain why flooding has occurred, including place specific information. <br> Content Guide: <br> Answers are likely to refer to: <br> Heavy rain/storms, <br> Rain for a long period of time, <br> Melting snow/ice, <br> Deforestation, <br> Urban growth/building houses/road building <br> Lack of management techniques, <br> Soil erosion/siltation, etc. <br> Place specific reference is likely to consist of: <br> Locational details/dates/times, <br> Places along river, <br> Specific details/amounts of precipitation, etc. | 7 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 5(a)(i) | 2050 mm | 1 |
| 5(a)(ii) | Ideas such as: <br> High/hot temperatures; <br> Large number of sunshine hours/sunny; <br> Little seasonal variation/all year, etc. <br> Note: No statistics <br> 2 @ 1 mark | 2 |
| 5(a)(iii) | Ideas such as: <br> Beaches; <br> Cliffs; <br> Bays/headlands; <br> Coral reefs; <br> Palm trees/tropical vegetation, etc. <br> 3 @ 1 mark | 3 |
| 5(a)(iv) | Ideas such as: <br> Employment/or example/paid work; <br> Increase in business for, e.g. hotels/souvenir shops/taxi drivers, etc.; <br> Can afford, e.g. schooling/healthcare; <br> Increased GDP/foreign currency inflows/money into country; <br> Multiplier effect; <br> Improved skills/education/build schools; <br> Better healthcare provision/build hospitals; <br> Increased market for local farm products/fish; <br> Example of infrastructural development, e.g. Electricity, sewage disposal, <br> water supply; <br> Transport improvements (or example, e.g. airport, roads); <br> Cultural exchange <br> etc. <br> 4 @ 1 mark | 4 |
| 5(b)(i) | Ideas such as: <br> It is next to/close to/near the sea; <br> It is close to the ferry terminal $/ 1 \mathrm{~km}$ away $/$ not far to travel to the ferry terminal; <br> It is close to fishing boats for fresh fish/tourist attraction; <br> It is away from industry/housing so is quiet/no air pollution; <br> It is close to fishing boats so crowded/smelly; <br> It is at the opposite end of the island to the airport so less noisy; <br> It is not close to the beach $/ 2 \mathrm{~km}$ to beach; <br> It is a long way to travel to the airport; <br> It is a long way to most shops/restaurants; etc. <br> 3 @ 1 mark | 3 |


| Question | Answer | Marks |
| :---: | :--- | :---: |
| 5(b)(ii) | Ideas such as: <br> Loss of privacy; <br> Noise; <br> Visual impact/spoils the view/blocks the view; <br> Litter; <br> Increase in traffic; <br> Inflation/increased prices in shops/on ferry; <br> Loss of (farm)land/living space; <br> Pressure on water supplies/electricity; <br> Offensive behaviour of tourists/alcohol/revealing clothing/culture not <br> respected; <br> Specific impact on natural environment or example, e.g. water <br> pollution/deforestation/loss of habitat; 1 MAX <br> Less fish to catch; <br> Increased business for tourist providers/shops/restaurants, etc.; <br> Hotel will build own shops so locals do not gain; <br> Land used for/money spent on, e.g. schools/hospitals; <br> Competition for local hotels; <br> May lead to further development on that part of the island; <br> 5 @ 1 mark or development | $\mathbf{5}$ |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 5(c) | Levels marking <br> Level 1 (1-3 marks) <br> Statements including limited detail which describe the different methods which are used to manage tourism. <br> Level 2 (4-6 marks) <br> More developed statements which describe the different methods which are used to manage tourism. <br> (Note: Max 5 if no named or inappropriate example) <br> Level 3 (7 marks) <br> Comprehensive and accurate statements which describe the different methods which are used to manage tourism, including some place references. <br> Content Guide: <br> Answers are likely to refer to: <br> Creation of National Parks; <br> Limit numbers of tourists; <br> Charge entrance fees; conservation; <br> Fence sensitive areas; <br> Ban hunting; <br> Only allow people access to an area with a guide; Educate people about caring for the environment; <br> Develop ecotourism, etc. <br> Place specific reference is likely to consist of: <br> Locational details, <br> Specific details of locations within the area <br> Specific details of strategies, etc. | 7 |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 6(a)(i) | (A fuel) formed from the remains of former living things/plants/animals. | 1 |
| 6(a)(ii) | As the production of coal increased so did the population/positive relationship/directly proportional; <br> Statistics to illustrate the above ( 2 years needed for each variable - or 'increased by .....' must include thousand tonnes) <br> 2 @ 1 mark | 2 |
| 6(a)(iii) | Ideas such as differences in: Decrease in primary; Increase in secondary followed by decrease; Increase in tertiary; <br> Note: No statistics. <br> 3 @ 1 mark | 3 |
| 6(a)(iv) | Ideas such as: <br> They will eventually run out/finite/they are not renewable; <br> They are expensive forms of energy/to produce/to extract/to import; <br> Transportation costs are high; <br> They pollute the air; <br> They produce waste; <br> They give off greenhouse gases/carbon dioxide/enhance global warming, etc. <br> 4 @ 1 mark | 4 |
| 6(b)(i) | Ideas such as: <br> Need electricity for homes/businesses; <br> There is not enough power currently supplied/there are power cuts/there is an energy crisis; <br> Solar maps have been produced/are available; <br> Interest from overseas/Chinese investors; <br> There are areas with a lot of sunshine/sunny/few clouds; <br> 3 @ 1 mark | 3 |
| 6(b)(ii) | Ideas such as: <br> They don't have the physical conditions required for its generation; E.g. not enough sunshine for solar power/not enough precipitation for HEP/inland location so wave power is not possible (MAX 2); <br> Many countries cannot afford to develop them; Or lack suitable technology/expertise; Currently they are limited in the quantities of electricity which can be produced/most are small scale; <br> Cost of setting up is relatively expensive; <br> Infrastructure is geared towards fossil fuels; <br> Political preferences/e.g. preference for nuclear power, etc. <br> 5 @ 1 mark or development | 5 |


| 6(c) | Levels marking <br> Level 1 (1-3 marks) <br> Statements including limited detail which describe methods used to supply <br> clean drinking water. <br> Level 2 (4-6 marks) <br> More developed statements which describe methods used to supply clean <br> drinking water. <br> (Note: Max 5 if no named or inappropriate example) <br> Level 3 (7 marks) <br> Comprehensive and accurate statements which describe methods used to <br> supply clean drinking water, including some place references. <br> Content Guide: <br> Answers are likely to refer to: <br> Reservoirs/dams, <br> Pipelines, <br> Wells, <br> Pumping water from aquifer, <br> Water transfer/importing water, <br> Desalination, <br> Water treatment plants, etc. <br> Bottled water, <br> Rain harvesting, etc. <br> Place specific reference is likely to consist of: <br> Locational details, <br> Named places/reservoirs, <br> Specific details of supply networks/schemes, etc. |  |
| :---: | :--- | :--- |

