## Cambridge Assessment International Education

Cambridge International General Certificate of Secondary Education

## GEOGRAPHY

0460/22
Paper 2
May/June 2018
MARK SCHEME
Maximum Mark: 60

## 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 ${ }^{\text {TM }}$, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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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.

| Question | Answer | Marks |
| :---: | :--- | ---: |
| 1(a) | state/country/county/district/E6 (road). | $\mathbf{1}$ |
| 1(a)(ii) | (unmarked) footpath. | $\mathbf{1}$ |
| 1(a)(iii) | lake/Bosen, <br> Allow dam, reservoir, Bosen river and max/min lake elevation. <br> Other lake names spoil. | $\mathbf{1}$ |
| 1(a)(iv) | 833 (metres). | $\mathbf{1}$ |
| 1(a)(v) | 391 354 = 2, <br> 391 355 = 1. | $\mathbf{2}$ |
| 1(b)(i) | summit height 1000-1100 m, <br> summit 45-55 mm from left hand margin. | $\mathbf{2}$ |
| 1(b)(ii) | railway 83-91 mm from left hand margin. | $\mathbf{1}$ |
| 1(b)(iii) | footpath 98-104 mm from left hand margin, <br> In each part of (b) use the ruler device to measure the answers. <br> Arrows should end within about 1cm of the profile. Measure to the point that <br> the arrow projects to. <br> There should be no ambiguity. <br> Allow labels by names or question numbers. | $\mathbf{1}$ |
| 1(c) | gentle(r) slope/flat qualified, <br> low(er)/below 400-500 m, <br> sunny/SW facing slope, <br> in valley, <br> sheltered by mountains, <br> state/country/county/district/main/E6 road(s)/railway, <br> junction of valleys/routes/roads, <br> river for water/transport, <br> bridge point, <br> forest for fuel/building material, <br> industrial area/industry, <br> quarry, <br> tourism/any two of hotel/lodging, information, skiing, sight', fishing, <br> swimming/paths for hiking/campsite/shooting. | $\mathbf{4}$ |


| Question | Answer | Marks |
| :---: | :---: | :---: |
| 1(d) | Credit the following comparisons between north and south. <br> Roads <br> overall: N more roads/S fewer roads/ N more density/S less dense, state/country/county/district/main/public roads: in north but (almost) none in the south, <br> private roads: in both N and S , <br> private roads: more in south/fewer in $\mathrm{N}(=2)$, <br> variety of roads: more types in N/fewer types in S, <br> $\mathrm{E}-\mathrm{W}$ roads: in both N and S , <br> bends: more in $\mathrm{N} /$ fewer in S , <br> gradient of roads: N steeper/ S gentler, <br> gradient of roads: follow slope/keep level in both N and S . <br> Settlement <br> amount of settlement: N more/S less, allow population, (built up/buildings = 0) <br> houses/cabin/shanty/farm/boatshed: in both N and S , (more houses in $\mathrm{N}=$ 1) <br> pattern: both dispersed, <br> east and west: N more in west/S more in east, <br> hotel/lodging: in S and not in N . <br> Land use <br> cultivation: more in $\mathrm{N} /$ less in S , ) If neither point given, allow ' N mainly forest: more in S/less in $N$, ) cultivation and $S$ mainly forest' $=1$ nature conservation/reserve: in both $N$ and $S$, <br> Relief gradient: both steep, (within N and S gentle spoils but gentler does not) altitude: N higher/S lower/ $\mathrm{N} 900-940 \mathrm{~m}$ S $860-880 \mathrm{~m}$, <br> Reserve 1 mark for each. | 6 |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 2(a)(i) | Correct plot of 0.36 billion in 2100, At the 9th subdivisions up from the base. <br> Ignore position and shading. | $\mathbf{1}$ |
| 2(a)(ii) | China. | $\mathbf{1}$ |
| 2(a)(iii) | 0.14 (billion.) | $\mathbf{1}$ |
| 2(a)(iv) | 2016 China and 2100 India. | $\mathbf{1}$ |
| 2(b) | Nigeria, <br> high(est) birth rate, | $\mathbf{2}$ |
| 2(c)(i) | no - countries lose through migration/only USA will gain through migration, <br> no- countries have negative migration, <br> no - migration figures low/much lower than growth, <br> no - countries with negative migration increase their populations, <br> Don't allow if for a single country. | $\mathbf{1}$ |
| 2(c)(ii) | death rate, <br> infant mortality rate, <br> life expectancy, natural population change, | $\mathbf{1}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 3(a) | CBD/shopping centre = 1 <br> Also allow commercial, city centre, zone 1, inner city, inner zone, transition <br> zone/twilight zone. <br> tall buildings/high rise/multi-storey/skyscrapers, <br> high density buildings, <br> some lower/not very high, <br> traffic congestion/much traffic/many parked cars, <br> many pedestrians, <br> glass fronts/windows, <br> many/ground floor shops, <br> offices, <br> adverts/billboards, <br> petrol station, <br> building site, <br> telecommunications, = 4. | $\mathbf{5}$ |
| 3(b) | large area, Allow open space/space for expansion <br> flat/gentle land, <br> many roads, <br> wide/main roads/motorway/highway, <br> street lights, <br> many other firms in the area (agglomeration), <br> similar buildings may mean sites provided in advance, <br> market/abour from urban area/nearby (in background), <br> away from residential therefore less noise/air pollution/traffic, etc. | $\mathbf{3}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 4(a)(i) | X focus, <br> Y epicentre. | $\mathbf{2}$ |
| 4(a)(ii) | fault, <br> fracture/break, <br> displacement/movement/slipped, <br> build up/release of pressure/tension/stress/energy, | $\mathbf{1}$ |
| 4(b)(i) | people in bed/at home/asleep (therefore affected by building collapse), <br> darkness (therefore rescue difficult). | $\mathbf{1}$ |
| 4(b)(ii) | mud-bricks weak (therefore easily destroyed), <br> allow a variety of expressions for 'weak.' | $\mathbf{1}$ |
| 4(c) | more than 2000 years ago, <br> before 3CE/AD, | $\mathbf{1}$ |
| 4(d)(i) | line drawn between the 5 and 6 values. | $\mathbf{1}$ |
| 4(d)(ii) | plaster fell from walls, <br> damage slight, <br> Building points from intensity 8 and 9 spoil. <br> Non-building points, points from intensity 5 and 'walls crack' don't spoil. | $\mathbf{1}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 5(a)(i) | wind vane/weather vane. | $\mathbf{1}$ |
| 5(a)(ii) | Six's/maximum-minimum thermometer(s). | $\mathbf{1}$ |
| 5(a)(iii) | hygrometer/wet and dry (bulb) thermometer(s)/psychrometer. | $\mathbf{1}$ |
| 5(b) | west, (allow north west.) | $\mathbf{1}$ |
| 5(c)(i) | $5^{\circ} \mathrm{C}$. | $\mathbf{1}$ |
| 5(c)(ii) | $10^{\circ} \mathrm{C}$. | $\mathbf{1}$ |
| 5(c)(iii) | $-5^{\circ} \mathrm{C}$, <br> In (c), if no units used deduct 1 mark in part (i). Use of units once validates <br> the rest. <br> Allow a tolerance of $\pm 0.5^{\circ} \mathrm{C}$ in each part of (c). | $\mathbf{1}$ |
| 5(d) | no - the temperatures are not the same, <br> no - temperatures would be the same if the air was saturated. | $\mathbf{1}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 6(a) | coast/ports/lake for import/export, <br> export market in surrounding countries/named surrounding country, <br> raw materials local/within country, <br> lakes for water supply, <br> limestone therefore cement/steel, <br> agricultural materials therefore food processing (or example.) | $\mathbf{3}$ |
| 6(b) | competition from imported manufactured goods, <br> needs to import oil, <br> lacks mineral resources, <br> large distances between places. | $\mathbf{1}$ |
| 6(c) | port/coastal, allow near the sea <br> receive (crude oil) imports, <br> no further transport (of crude oil) needed. | $\mathbf{2}$ |
| 6(d)(i) | $20 \%$. | $\mathbf{1}$ |
| 6(d)(ii) | $50 \%$, <br> Allow a tolerance of $\pm 2 \%$ in each part of (d). | $\mathbf{1}$ |

