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CAMBRIDGE
International Education

Cambridge IGCSE™

GEOGRAPHY **0460/41**

Paper 4 Alternative to Coursework **May/June 2024**

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.

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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 descriptions 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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Marking annotations

Examiners must use the following annotations:

Annotation	Meaning
	Correct point
	Incorrect
HA	Hypothesis answer used with another annotation e.g. tick, cross or omission mark
Highlight	Used to link parts of an answer or show where credit has or has not been given
	Omission or further development/detail needed to gain credit
J	The point has ‘just’ been allowed / benefit of the doubt given
	Unclear or validity is doubted
LNK	Linking 2 or more ideas or paired data together to gain a mark
REP	Idea has been repeated
{ }	Brackets used to show where a point has or has not been awarded within a longer answer
	1 Response has been seen but no credit given 2 Additional page has been checked

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Question	Answer	Marks
1(a)(i)	To stop direct heating by the **sun** / keep it out of the sun / avoid direct sunlight / stops heat absorption from sun; **Air** can circulate / allows ventilation; Thermometer is not affected by **heat from the ground**; To protect it from **animals** / damage by **people / tampering**.	**3**
1(a)(ii)	Barometer / wet and dry bulb thermometer / hygrometer	**1**
1(a)(iii)	Read temperatures every 24 hours / fixed period of time / same time of day / at end of day; Read off the **bottom** of the index (to get maximum and minimum temperatures); Read at eye level; Reset thermometers.	**3**
1(b)(i)	1 mark for **diagram** with funnel, collecting jar and outer casing; 3 marks for **labels** which show parts of the rain gauge: Measuring jar / container / cylinder / beaker; Funnel; Outer casing; Scale / measurement / mm; Gauge half buried in ground.	**4**
1(b)(ii)	Clear of buildings / on open ground / open area; Clear of trees / not under trees; On grassland / not on concrete or pavement; On roof; Clear of people / animals / fenced off; Position where gauge is accessible; On level / flat ground.	**2**
1(b)(iii)	Note: Explanation does not need to follow the description in **1(b)(ii)**. All rainfall can enter gauge / nothing stops rain falling in / gauge is not sheltered / no obstruction / trees or buildings stop rain falling into gauge; To prevent interception / water dripping from leaves / leaves don't block the funnel; Rain does not splash up into the rain gauge; To prevent instrument being emptied / interfered with; It can be checked and emptied each day; It doesn't fall over.	**2**
1(c)(i)	12°	**1**
1(c)(ii)	Day 3	**1**
1(d)(i)	Secondary	**1**

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Question	Answer	Marks
1(d)(ii)	More accurate / precise / reliable data / more trustworthy; Collected by professionals or people with expertise / people have been trained; Automated / digital system of collection / hi-tech instruments / professional equipment; Collected every day / not affected by forgetting / weekends.	**2**
1(e)(i)	Plot 30° at Cape Town – X symbol Line needed	**1**
1(e)(ii)	Hypothesis is **false**; OR Temperatures are higher in Cape Town; OR Temperatures are lower in Johannesburg – 1 mark reserve (✓HA). (Average) **maximum and minimum** temperatures are higher in Cape Town. **2 marks for comparative statistics** e.g. (Average) **maximum** temperature in Cape Town = 28.2° and in Johannesburg = 24.4° / 3.8° higher in Cape Town; (Average) **minimum** temperature in Cape Town = 16.0° and in Johannesburg = 14.3° / 1.7° higher in Cape Town; Highest (daily) temperature in Cape Town = 36.2° and in Johannesburg = 29.1° / 7.1° higher in Cape Town; Lowest (daily) temperature in Cape Town = 11.2° and in Johannesburg = 10.1° / 1.1° higher in Cape Town. Note: NO credit for statistics for individual dates. NO credit for reference to dates when Johannesburg temperatures are higher than Cape Town (4 days maximum temperature and 6 days minimum temperature). Hypothesis is true / partly true = XHA. Credit relevant evidence which supports the correct conclusion of false. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of false.	**4**
1(f)(i)	Plot 8.5 mm on 1st February in Johannesburg	**1**

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Question	Answer	Marks
1(f)(ii)	Hypothesis **is** true **/ yes / agree** – 1 mark reserve (✓HA). **Credit 2 marks for either statement or data:** **Total** rainfall is higher in Johannesburg / 6 times higher More **days** with rainfall recorded in Johannesburg; On 2 days rainfall in Johannesburg is more than all month in Cape Town; Average **daily** rainfall is higher in Johannesburg. **Comparative statistics** e.g.: (Total) rainfall in Johannesburg = 93 mm and in Cape Town = 14.9 mm / 78.1 mm higher; 11 days with recorded rainfall in Johannesburg and 6 days in Cape Town / 5 more days; Highest (daily) rainfall in Johannesburg = 22.8 mm and in Cape Town = 10 mm / 12.8 mm higher; 4 days with rainfall over 10 mm in Johannesburg and 0 days in Cape Town / 4 more days; Average daily rainfall in Johannesburg = 3.3 mm and in Cape Town = 0.5 mm / 2.8 mm higher. Note: NO credit for statistics for individual dates. Hypothesis is partly true / false / do not agree = XHA. Credit relevant evidence which supports the correct conclusion of true. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of true.	**4**

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Question	Answer	Marks
2(a)(i)	Regular intervals / regular pattern / after a set number / even number; Ask every tenth / nth person (third upwards).	**2**
2(a)(ii)	Avoid bias / fair test; Saves time; Impossible to ask all visitors / don't have to ask everybody; Get a variety / selection of people; Reflects views of everyone / representative group.	**2**
2(b)(i)	Plot Indonesia = 14 and Thailand = 9 (solid line) Arrows must point in direction of Kuala Lumpur 2 @ 1	**2**
2(b)(ii)	Hypothesis is **true** – 1 mark reserve (✓HA) **1 mark for a statement:** Three of the four largest source countries / Singapore and Indonesia and Thailand are in southeast Asia / two largest source countries are in southeast Asia / Singapore and Indonesia have highest numbers of tourists; 11–15 / more than 15 categories are from countries in southeast Asia **and** 1-5 category is from countries outside southeast Asia / other parts of the world. **1 mark for data:** 68 come from southeast Asia / 36 more from southeast Asia than other countries / 32 come from countries not in southeast Asia / 50% come from two largest southeast Asian countries; No country from outside southeast Asia has more than 10 visitors / highest number from outside southeast Asia is China with 10 visitors. Hypothesis is partly true / false = XHA. Credit relevant evidence which supports the correct conclusion of true. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of true.	**3**
2(c)(i)	Scores are subjective / personal opinion / different thoughts about; Students are looking at different parts of the area / different areas /different places / seen different things / heard different noises / litter cleaned up between surveys; Students do the survey at different times / days; The scoring parameters are vague (good and bad) / no guidance on values; Students lived in different areas / come from different backgrounds.	**2**

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Question	Answer	Marks
2(c)(ii)	Decide whether to survey individually or in a group / pair; Agree where each group or pair goes / decide which area to go to; Use agreed categories / descriptions; Agree on what descriptions mean / agree on standard / do a pilot or practice survey; Decide when would be best day / part of day to do survey / do it same day; Agree on time of survey / all surveys done at same time; Walk round / look at the area / observe the area / different features; Decide the score for each feature / rate each feature; Record the score / circle the score / tick the score; Calculate a total score. Note: Credit 2 maximum if asking people.	**4**
2(d)(i)	Plot Batu caves results Amount of litter = 2, how crowded = 1, air pollution = 3. Note: 1 mark for 3 correct 'positions', 1 mark for 4 correct lines.	**2**
2(d)(ii)	Hypothesis is **false** / **no**; OR Visitors to KL Bird Park do not spoil the environment more; OR Visitors to Batu Caves spoil environment more – 1 mark reserve (✓HA). **1 mark for statement**: KL Bird Park gets higher ratings than Batu Caves; KL Bird Park has higher (total) score than Batu Caves / Batu Caves have lower (total) score; Batu Caves have more traffic, litter and more crowded / score lower on these; KL Bird Park has higher scores for traffic, litter and more crowded. **1 mark for comparative statistics** KL Bird Park = 15 total score and Batu Caves = 10 total score; KL Bird Park = 3 average score and Batu Caves = 2 average score; KL Bird Park most scores are 3 and Batu Caves most scores are 2. NOT Comparing individual category e.g. KL Bird Park = 4 for traffic and Batu Caves = 2 for traffic. Hypothesis is true / partly true / yes = XHA. Credit relevant evidence which supports the correct conclusion of false / no. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of false / no.	**3**
2(e)(i)	Plotting bars: Batu Caves = 60, KL Botanical Gardens = 37.	**2**

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Question	Answer	Marks
2(e)(ii)	**2 marks maximum for statements**: Human landscape attractions are more popular; More / higher number of **visits** are made to human attractions; The most visited attraction is human; Two of the three most visited attractions are human. **2 marks maximum for statistics**: 332 **visits** to human attractions and 249 **visits** to ecological attractions / 83 more visits; Highest human attraction / Petronas Towers has 84 visits / **visitors / people and** highest ecological attraction / KLCC Park has 68 visits **/ visitors / people /** 16 more visits; Average number of visits per attraction human 47.4 and ecological 41.5.	**4**
2(f)	Bring money into the area / economy / increase GDP / sell to tourists / tourists buy products / money for government / support local businesses / improves level of development; Create jobs for local people / e.g. of job / earn money; Local people experience cultures from other countries / share culture / local traditions across the world / preserves local culture / learn new languages; Improve local services **such as** health / education; Improve water / electricity/ sewage disposal / wi-fi; Improve public transport / roads / airports / railways; Locals can use tourist facilities / services; Multiplier effect, e.g. local people have jobs so spend more in local shops; Incentive to preserve natural attractions / heritage sites.	**4**

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