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Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/42**

Paper 4 Alternative to Coursework **October/November 2023**

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 October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level 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.

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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 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)	Sloping/incline/slopes/steep in some places; Shingle/pebbles/small rocks/stones/gravel; There is a ridge/goes up and down. 2 @ mark	**2**
1(b)	Wear waterproof OR extra clothes/macs/wellingtons/coat/shoes/umbrella; Keep away from OR avoid cliff/overhang/don't stand on edge of cliff; Work from safe position/don't go into sea/face the sea/watch the sea/keep distance from shore/stay away from edge of sea/stay away from waves; Check the time of high tide/do the work at low tide/wait for low tide. 4 @ 1 mark	**4**
1(c)(i)	Complete measurements of: Width = **65–66 mm**. Depth = **28–29 mm**. 2 @ 1 mark	**2**
1(c)(ii)	Average measurement = $\underline{71 + 65/66 + 28/29}$ = **54.6 to 55.3.** Note: Working is not needed. Only mark final answer. 1 mark	**1**
1(d)(i)	Plot measurement 18 = **52 mm** on bar graph 1 mark	**1**
1(d)(ii)	Number 2 1 mark	**1**
1(e)(i)	Plot **91 mm** at 20 m from north groyne 1 mark	**1**

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Question	Answer	Marks
1(e)(ii)	The hypothesis is **generally true** – 1 mark reserve (✓HA). Credit 2 marks for paired data: can be any two sites that show these: 1 mark to show hypothesis is true: e.g. 94 mm at 10 m from north groyne and 36 mm at 100 m from north groyne; 1 mark to show an anomaly: e.g. 53 mm at 60 m from north groyne and 63 mm at 70 m from north groyne; e.g. 10 m from north groyne is 94 mm and at 40 m its 56 mm but at 50 m it goes up to 60 mm. **Note:** Hypothesis is false/completely true = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence. 1 HA + 1 + 1 mark	**3**
1(f)	Wind drive waves/waves move in direction of prevailing wind; Waves come to the beach at an angle/oblique/diagonal; Swash carries material up the beach; Backwash takes material back down the beach; Material goes down at right angles/perpendicular to beach/under gravity; Process is repeated with each wave; Material moves OR zig zags along the beach/shore. **Note:** Credit in text or on annotated diagram (no double credit). Labels must explain. 4 @ 1 mark	**4**
1(g)(i)	Completion of histogram at site 3. **Note:** Ignore shading. 76–100 mm = **6** More than 100 mm = **9** 1 + 1 mark	**2**
1(g)(ii)	**Yes** / **support** hypothesis / **true** 1 mark reserve (√ HA). (Average) size increases from site 1 /10 m from sea to site 3/50 m from sea; Most between 0–50 mm at Site 1 and most 76– >100 mm at Site 3. Credit paired data to 1D mark max./reserve. Only credit refs to Sites 1 and 3: e.g. 0–25 mm material = 7 at site 1/10 m from sea and 2 at site 3/50 m from sea (1D)/ e.g. More than 100 mm material = 0 at site 1 and 9 at site 3 (1D)/ e.g. 7 between 0–25 mm at Site 1/10m and 9 >100 mm at Site 3 / 50 m (1D). Note: No / does not support hypothesis / false / partly supports = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence. 1HA + 1 + 1DR marks	**3**

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Question	Answer	Marks
1(g)(iii)	Swash/strong waves/big waves/storms or storm waves take all material **OR** larger material up the beach; Backwash/weaker waves/take smaller material/not large material down the beach; Erosion/attrition more rapid close to the sea/less erosion at back of beach; Rockfalls from cliff provide larger material at back of beach; Higher tides may move material further up the beach. 2 @ 1 mark	**2**
1(h)	**Note:** Any 4 of the following points. Must refer to equipment where underlined: Put tape measure out along transect line/to create a transect line. Put ranging poles at breaks of slope; Use tape measure to measure distance between ranging poles. **OR** Use tape measure to measure equal distances from sea to back of beach/up the beach/5–10 m apart; Put ranging poles at each end of measured distance/equal distances apart/5–10 m apart. Ensure poles are vertical; Rest poles on surface/equal depth into beach material; Student holds clinometer next to top/at agreed height on ranging pole/at eye level; Sight other ranging pole at top/same height; Read angle/measure angle OR degrees/record angle OR degrees using clinometer; Move poles up beach/along profile to next site/break of slope. 4 @ 1 mark	**4**

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Question	Answer	Marks
2(a)(i)	Primary 1 mark	**1**
2(a)(ii)	**Note:** must credit quarry not area around it. Large/deep/big/wide/opencast/open pit/surface mining; Bare rock/grey; On a hillside/slope/incline; Stands out in landscape/eyesore; Layers/terraces/stair-like/benched sides/steep sides; Road/track at edge or around quarry. 2 @ 1 mark	**2**
2(b)	**Note:** Plot + shading to be clockwise in order of key: Agriculture = 12%. Others = 33%. 1 plot for line at 67% (241° clockwise OR 119° anticlockwise from top) Tolerance 2° each way i.e. 239° / 243° OR 117° / 121°. 1 mark for correct shading of two slices using the key. 1 + 1 shading mark	**2**
2(c)	R3: Explains to the person answering why the questions are being asked. R4: Includes a variety of open and closed questions. R6: Questions are straightforward and easy to understand. 3 @ 1 mark	**3**
2(d)(i)	Benefit: The quarry owner supports the local community. 1 mark	**1**
2(d)(ii)	Problem: Lorries are too big for local roads and damage the pavement. 1 mark	**1**
2d(iii)	Divided bar graph completion: Plot dust = **36**, noise = **20**, spoils the view = **17.** 1 mark for dividing lines at 119 and 139 1 mark for line at 156. 1 mark for correct shading. 1D + 1D + 1 shading mark	**3**

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Question	Answer	Marks
2(d)(iv)	Hypothesis is **false / incorrect** – 1 mark reserve (✓HA). 1 mark reserve for statement and data; 2 marks max. on both. **Statements: 1S or 2S max:** More problems than benefits are identified; More answers give problems than benefits; Highest number of answers for one problem is more than highest number for one benefit; More people say quarry is bad than good/more problems than benefits. **Data:** Credit 1D or 2D max. for paired data: e.g. 5 problems and 4 benefits (1D); e.g. 156 (61%) answers ref. problems and 99 (39%) answers ref. benefits (1D); e.g. 57 (22%) **more** answers for problems than benefits (1D + 1S = 2); e.g. Noisy lorries = 45 and local employment = 41 (1D); e.g. 63% think quarry bad/37% think quarry good (1D). **Note:** Hypothesis is true / partially true = 0 (XHA). If no hypothesis conclusion ^HA and credit evidence. 1HA + 1S + 2D **OR** 1HA + 2S + 1D mark	**4**
2(e)(i)	Transport bar graph completion. Plot '**a little'** = **30** AND '**not at all'** = **19.** Correct shading of both bars = (1Sh). 1 + 1 shading mark	**2**
2(e)(ii)	**Agree** / Hypothesis is **true** – 1 mark reserve (✓HA). 1 mark reserve for statement and data; 2 marks max. on both. **Statements:** 1S or 2S max: Hotels and restaurants affected most/shops affected least; Hotels/farming affected more than transport/shops; Order of effect is hotels, farming, transport, shops. **Data:** compare either of 2 highest percentage with either of 2 lowest percentage. Credit 1D or 2D max. for paired data: % not needed for mark: e.g. Hotels/restaurants = 73% greatly affected and shops = 33% greatly affected (1D); e.g. Shops: 28% not affected at all and hotels/restaurants = 12% not affected at all (1D). **Note:** Hypothesis is false/partially true = 0 (XHA). If no hypothesis conclusion ^HA and credit evidence. 1HA + 1S + 2D OR 1HA + 2S + 1D mark	**4**

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Question	Answer	Marks
2(e)(iii)	**Note:** 1 max. for each type of business: **Farming**: **(dust)** covers crops/crops die/loss of crops and income/harms animals health OR farmworkers health worse/less to sell/pollute water for irrigation/damage machinery/crops damaged. **Hotels and restaurants: (noise)** disturbs guests/puts guests off coming/loss of business and income/customers complain/negative reviews. **Transport**: (**congestion**) delays vehicles/makes people late for work/loss of income whilst delayed/journey takes longer. 3 @ 1 mark	**3**
2(f)	**Note:** response can focus on 1/2/3 or all 4 photos if make 4 valid and different points. Ideas such as: From photos: must be an elaboration from the activity: **Walking trail:** hiking/running/walking gives fitness benefits. **Caravan site:** brings income to locals/farms can sell eggs/rent site. **Mountain biking:** local competition/activity for youth/fitness benefits. **Fishing lake:** hobby or leisure activity/can hire equipment out/wild swimming/sub-aqua clubs/sailing. Generic ideas such as: Attracts tourists OR more customers **so** creates more jobs/income/business opportunities or example; Creates more jobs OR income OR wealth **so** employment in local businesses or example; More leisure/fun/enjoyable/outdoor activities; Peaceful environment/tranquil/quiet areas/away from urban noise; Enjoy nature/countryside/nature trails/go for a walk; Business opportunities with e.g. caravan site/accommodation/bike shops/fishing tackle/open cafes/glamping; Improving the local environment/use income to improve environment; Allows for relaxation/physical or mental well-being. **Note:** Do not double credit. 4 @ 1 mark	**4**

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