CAMBRIDGE
International Education

Cambridge IGCSE™

GEOGRAPHY **0460/42**

Paper 4 Alternative to Coursework **February/March 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 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)	Rows 3, 4 and 7 are correct. *Movement of material up and down the beach is repeated with each wave* (1) *Waves approach the coastline at an angle* (1) *The prevailing wind influences the direction of longshore drift movement* (1) (1 + 1 + 1)	**3**
1(b)(i)	**Painted the pebbles** Make them easy to see / stand out / recognise / identify / find later / visible differentiate (1) See how far or in what direction the pebbles had moved / watch movement. (1) **Repeated their method three times** To calculate average distance travelled/average results/exclude anomalies (1) To check the normal direction of longshore drift / check results are same (1) To make their results (more) reliable / get a bigger sample /less mistakes. (1) (1 + 1)	**2**
1(b)(ii)	Plot x for number and • for average length. Plot 40.1–50 m: number of pebbles = **21** and average length = **5.5 cm** (1 + 1)	**2**
1(b)(iii)	Hypothesis is **true** / **yes** / **supported –** 1 mark reserve (✓HA) Pebbles are moved (east) away from starting point / pebbles are moved along coast / pebbles moved in same direction as longshore drift (1) Most pebbles moved between 30.1–40 m **OR** many pebbles moved between 20.1–50 m **OR** pebbles move more than 80 m from starting point (1) Pebbles become smaller as distance increases / smaller pebbles are moved further along the coast than larger pebbles. (1) Credit 1 mark reserve and MAX for paired data e.g. average pebble length 8.5 cm moves 0.1–10 m **and** average pebble length 3.4 cm moves > 80 m (1) e.g. 33 are moved 30.1–40 m and 3 moved > 80 m (1) Hypothesis is false / partly agree / not supported = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence. (1HA + 2S + 1D)	**4**
1(c)	A cork is light AND affected by wind (1) A cork floats away from beach **SO** difficult to see where it finishes / is lost (1) A cork is small **SO** difficult to see (1) Student error **in** timing five minutes / measuring the distance moved (1) Only did test once **SO** might get anomaly / might be inaccurate. (1) (1 + 1)	**2**

Question	Answer	Marks
1(d)	**Description (1D Reserve)** Wooden / fences / barriers (1) Go from the back of the beach to the sea / perpendicular or vertical to coast. (1) **How they reduce longshore drift (1E Reserve)** Trap pebbles or sand or beach material (1) **NOT**: Break waves/reduce velocity Prevents movement of material along coast / beach. (1) (1D + 1E + 1)	**3**
1(e)(i)	Examples Work as a group and agree the scores for each factor (1) Survey all four defences when sea conditions are similar (1) Do a practice / pilot survey to check recording form is appropriate (1) Do a practice / pilot survey to ensure students understand instructions / know what to do (1) =0 Ask people. (1 + 1 + 1)	**3**
1(e)(ii)	Ignore shading Plot attractiveness of gabion = **–1** and total score for gabion = **+1** (1 + 1)	**2**
1(e)(iii)	The conclusion is **true for some defences –** 1 mark reserve (✓HA) True OR positive scores for gabion and groyne (1S) False OR negative scores for revetment and sea wall (1S) Groyne TRUE and Sea Wall FALSE but gabion and revetment too close to be either. (1S) Credit 1 mark reserve/MAX for paired total data 1 positive and 1 negative score e.g. groyne = +4 and sea wall = –5 (1D) No credit for individual scores Hypothesis is true for all defences / false for all defences = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence. (1HA + 2S + 1D)	**4**
1(f)(i)	Plot litter bins = **8.** Ignore shading. **TICK/CROSS**.	**1**
1(f)(ii)	**Litter bins**: reduce litter dropped / improve appearance of the environment / stop animals choking on litter / area cleaner / litter put in bin. (1) **Car parks**: reduce number of vehicles parking anywhere / reduces threat to habitats (1) **NOT:** reduces air pollution / congestion. **Signposted footpaths**: stops people trampling on OR harming vegetation / keeps people on a path / protects habitats. (1) **Visitor information centres**: educates people about the environment / shows trails or walks / makes people aware. (1) (1 + 1 + 1 + 1)	**4**

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Question	Answer	Marks
2(a)(i)	**Stratified: (1)** Find out gender or age balance of workers (1) Ask a balanced number or proportionate number of workers of different age group and gender / get a balance of different ages or gender. (1) **Systematic: (1)** Choose workers at regular / same / equal intervals (1) Every tenth / n^{th} worker they meet. (1) **Random: (1)** Use random number table or similar method e.g. pick numbers out of a hat (1) This determines the workers they give the questionnaire to. (1) **OR** Ask anybody / next person / no pattern (1 mark) 1 mark for name of method, 2 marks for description **If no/incorrect name credit appropriate description** **If name doesn't match description, credit name only.** (1M + 2D)	**3**
2(a)(ii)	Examples Tally method / tally chart / tallying (1) Mark one line for each person counted (1) Record results in multiples / groups of five. (1) (1 + 1)	**2**
2(b)(i)	Shade Almond **(13 crisscross**) and Forth **(5 vertical)** (1 + 1)	**2**
2(b)(ii)	Choropleth map	**1**
2(b)(iii)	Examples Shows overall pattern (1) Easy to identify similar areas/differentiate or pick out groups/compare areas (1) Visual / clear / detailed (1) Easy to read / easy to understand / quick to read. (1) (1 + 1)	**2**

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Question	Answer	Marks
2(b)(iv)	Hypothesis is **true** – 1 mark reserve (✓HA) Workers who develop products mainly live in areas further from factory (1) Workers who develop products mainly live closer to city centre (1) Most who develop products live in Inverleith / W.Edinburgh / Almond **and** most who make products live in Liberton and Gilmerton / Portobello and Craigmillar (1) Most who develop live in NORTH/NW/W and most who make live in EAST. (1) Credit 1 mark MAX for comparative data e.g. In Inverleith 16/13–16 workers who develop products **and** 4/1–4 workers who make products (1D) e.g.16/13–16 workers who develop products live in Inverleith **and** 15/13–16 workers who make products live in Liberton and Gilmerton. (1D) Hypothesis is false = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence If partly/generally true = ^HA and credit evidence (1HA + 2S + 1D)	**4**
2(c)(i)	**Complete pie graph** Convenient local services such as clinics and bus routes **=18** Different types of shops are nearby =**19** 1 mark for dividing line at 81(68 degrees west of N), 1 mark for shading. (1 + 1)	**2**
2(c)(ii)	Examples Affordable house prices and rents (1) The area is safe with little violence. (1) (1 + 1)	**2**
2(d)(i)	**Complete divided bar graph** No open spaces for recreation = **23** Poor schools = **18** 1 mark for dividing line at 82, 1 mark for shading. (1 + 1)	**2**

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Question	Answer	Marks
2(d)(ii)	Hypothesis is **true for one group of workers** – 1 mark reserve (✓HA) True for workers who develop new products (1) Workers developing products think main disadvantages are congested roads and overcrowded trains (1) Workers making products think social disorder is the main disadvantage. (1) Credit 2 Max marks for data e.g. 85%/50 + 35 who develop products agree **and**13%/ 6 + 7 who make products agree (1) e.g. 34%/34 who make think that social disorder is the main disadvantage and 3 who develop. (1) Hypothesis is true for both groups / for neither group = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence. (1 HA + 1S + 2D or 1HA + 2S + 1D)	**4**
2(e)(i)	Examples Air pollution / CO2 emissions (1) Difficult for emergency services to get through (1) Frustration / anger / 'road rage' / accidents (1) Noise (1) Deliveries late / children late to school / late to work / longer to get to work / less work time (1) Waste of fuel. (1) (1 + 1)	**2**
2(e)(ii)	Ideas such as: Many or more people live OR work in urban areas OR move or migrate to live in urban areas (1) Road network not designed for large numbers of vehicles / roads too narrow / not enough roads (1) Parking on verges / pavements / not enough car parks (1) Growth in car ownership / many or more people have or can afford cars (1) Many people commute / travel to work at the same time / rush hours (1) Inadequate public transport / lack of cycle lanes etc (1) Many lorries / vans / delivery vehicles on the roads (1) Temporary work e.g. roadworks / accidents / construction work / traffic lights not working, roads flooded, diversions. (1) (1 + 1 + 1 + 1)	**4**

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