

Cambridge IGCSE™

GEOGRAPHY**0460/42**

Paper 4 Alternative to Coursework

May/June 2026**MARK SCHEME**Maximum Mark: 60

Published

This mark scheme contains the instructions and marking guidance that our examiners used to mark candidate responses for this component.

Before they start marking, examiners complete a standardisation process. They review a range of candidate responses and discuss the mark scheme in detail to agree which answers can and cannot be accepted. Examiners award marks where it is clear that candidate responses have met the requirements of the mark scheme. These requirements may vary between different components or different versions of the same component, depending on the exact requirements of the question and the candidate responses seen during the standardisation process.

Sometimes, our mark schemes may allow marks to be awarded to responses which contain elements that are factually incorrect or for content not covered by the syllabus. We do this in response to the demands of a specific question to support candidates and make sure that our assessments are fair. However, these allowances should not be used as a guide for teaching and learning.

We cannot discuss the mark scheme with schools, and we recommend that schools read the mark scheme together with the assessment material and the Principal Examiner Report for Teachers.

This document consists of **9** printed pages.

General marking principles

All examiners must apply these marking principles when marking candidate responses.

1	Examiners must award marks for each response in line with: • the specific content defined in the mark scheme • the specific skills defined in the mark scheme or in the level descriptions • the standard of response required as exemplified by the standardisation scripts.
2	Examiners must award whole marks (not half marks, or other fractions).
3	Examiners must award marks positively . This means that: • marks are not deducted for errors or omissions • marks are awarded for correct/valid answers as defined in the mark scheme and also for other valid answers which go beyond the scope of the syllabus and mark scheme referring to your team leader as appropriate • the quality of spelling, punctuation and grammar are judged only when the mark scheme indicates that these features are specifically assessed in the question. However, the meaning of all responses must be unambiguous.
4	Examiners must consistently apply the requirements of the mark scheme and any rules for what to do when candidates have not followed instructions correctly.
5	Examiners must use the full range of marks defined in the mark scheme, unless limited by the quality of the candidate responses seen.
6	Examiners must award marks according to the mark scheme and must not award marks with grade thresholds or grade descriptions in mind.

Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
	Correct point
	Incorrect point
	Hypothesis answer used with another annotation e.g. tick, cross or inverted v
	Highlighting areas of text
	More information required
	Just enough information to answer the question
	Two statements are linked
	Repetition
	Open bracket
	Close bracket
	Page or response seen by examiner
	Full marks

Question	Answer	Marks
1(a)(i)	2.6 (m)	1
1(a)(ii)	2019–2020	1
1(b)(i)	Complete divided bar for site 6: 1 mark for correct line and correct shading which must be correct diagonal. Grass covered = 70, Bare soil = 30	1
1(b)(ii)	Hypothesis is true for some sites – 1 mark reserve (✓HA) <u>Statement mark:</u> True for sites 3, 4 and 5 OR not true for sites 1, 2 and 6 (1S) Comparative data marks only from extremes of 0 m and 9 m at any site. Must use data; not references to 'near the path / far away'. Units can be squares (sq.) or percentages. <u>1 mark for data from sites 3 OR 4 OR 5 supporting hypothesis</u> (More worn away near footpath) SITE 3: 60 sq. bare soil at 0 m and 0 sq. bare soil at 9 m OR 40 sq. with grass at 0 m and 100 sq. with grass at 9 m (1D) SITE 4: 27 sq. bare soil at 0 m and 0 sq. bare soil at 9 m OR 73 sq. with grass at 0 m and 100 sq. with grass at 9 m (1D) SITE 5: 46 sq. bare soil at 0 m and 2 sq. bare soil at 9 m OR 54 sq. with grass at 0 m and 98 sq. with grass at 9 m (1D) <u>1 mark for data from site 1 OR 2 OR 6 not supporting hypothesis</u> (Less worn way near footpath) SITE 1: 7 sq. bare soil at 0 m and 14 sq. bare soil at 9 m OR 93 sq. with grass at 0 m and 86 with grass at 9 m (1D) SITE 2: 5/6 sq. bare soil at 0 m and 25 sq. bare soil at 9 m OR 94 sq. with grass at 0 m and 75 sq. with grass at 9 m (1D) SITE 6: 15 sq. bare soil at 0 m and 30 sq. bare soil at 9 m OR 85 sq. with grass at 0 m and 70 with grass at 9 m (1D) Hypothesis is true / false for all sites = 0 (XHA) but credit relevant evidence which supports the correct conclusion. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of true for some sites. (1HA + 1S + 2D)	4
1(b)(iii)	People / visitors / tourists walk in <u>grassy</u> areas / take short cuts across <u>grass</u> / dogs walk on <u>grass</u> (1) <u>ACCEPT 'it' = grass</u> Nearby facilities / attractions / viewpoints / near bins / toilets / picnic sites / playing sports / cafes / play areas / play on grass / take photos / sit on grass bike riding (1) Near entrance to park / near car park / vehicles driving over the grass (1) Less management / repairs to <u>grass</u> in some areas (1) (1 + 1)	2

Question	Answer	Marks
1(c)(i)	Circle the site (of survey) (1) Look at / observe each feature / see the site / compare features (1) Match feature to description (1) Make a decision about / give a score for each feature (1) Put a tick / record / mark / annotate / write score in the appropriate box (1) Complete total score for the area (1) Do not credit how to <u>create</u> the sheet. (1 + 1 + 1)	3
1(c)(ii)	Decisions are subjective / personal opinions / different perspectives / different backgrounds (1) Students have different interpretation of descriptions / descriptions not defined (1) Survey done at different times / different conditions / different days (1) Looking at different parts of the same site in the park (1) No practice OR pilot study <u>to get consistency</u> (1) (1 + 1)	2
1(d)(i)	<u>Plot results for site 3 from student A's results</u> <u>Plots must be located accurately as on examples in Fig 1.6</u> Fencing = -2, noise = -1, litter = -1, damage to trees = +1, number of people = -2 <u>Five</u> correct plots located accurately within tolerance (1) 3–5 correct plots joined by <u>dashed</u> lines (1) (1 + 1)	2
1(d)(ii)	Hypothesis is true / yes – 1 mark reserve (✓HA) Scores or results vary between the sites / gives wide range of scores / there are positive and negative scores / high and low / the results are different (1S) OR describes / compares variation of at least 3 features between any 2 sites (1S) <u>1 mark for total scores from any two from the three sites below showing variation</u> (1D) Site 1 = +1, site 3 = -5, site 6 = +6 <u>1 mark for variation in any two scores of an individual feature (1D)</u> e.g. fencing = 0 in site 1, -2 in site 3, +2 in site 6 Hypothesis is false / partly true / no = 0 (XHA) but credit relevant evidence which supports the correct conclusion. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of true. (1HA + 1S + 2D)	4
1(e)(i)	Take a small / proportion / percentage of people from the population OR that represents the population OR take small set of data that represents a bigger set of data OR sub-group represents population / larger group (1)	1

Question	Answer	Marks
1(e)(ii)	Represents opinions / sample of opinions / range of people's views OR Not enough time / people available to ask everyone / saves time / faster OR can't ask everybody (1)	1
1(e)(iii)	Random = select the next person they meet Stratified = select people in proportion to represent different groups Systematic = select people in a regular pattern 3 correct = 2 marks 1 or 2 correct = 1 mark (1 + 1)	2
1(f)(i)	<u>Pie graph completion</u> Plot European countries = 15% , USA = 6% 1 mark for dividing line at 94% ($338^\circ/21^\circ-22^\circ-23^\circ$ from north) 1° <u>tolerance</u> 1 mark for shading. <u>If plot wrong way round (line @ 85%) credit shading if slices have correct pattern i.e. largest (European) crosses, smallest (USA) vertical lines.</u> (1 + 1)	2
1(f)(ii)	Draw bar for Pearl Qatar island = 58 . Ignore shading	1
1(f)(iii)	Most OR 5 out of 6 attractions are human attractions OR 4 most visited are human attractions (1S) Corniche has highest number of visitors and is a human attraction (1S) Only Khor Al-Udeid / nature reserve is natural attraction (1S) Khor Al-Udeid / nature reserve has the second lowest number of visitors (1S) <u>1 mark maximum / reserve for data of number of people visiting human > natural</u> e.g. 65 visitors to Corniche / promenade and 43 visitors to Khor Al-Udeid / nature reserve (1DR) e.g. 50 visitors to Katara and 43 visitors to Khor Al-Udeid (1DR) e.g. 268 visitors to human attractions and 43 to natural attraction (1DR) (1S + 1S + 1DR)	3

Question	Answer	Marks
2(a)(i)	Speed of flow / avoid where the river is fast flowing / rapids / waterfalls (1) Depth / avoid areas where the river is too deep (1) Width / avoid where river is too wide to measure (1) Gradient / avoid where river is too steep (1) Accessibility of sites / easy to get to / space to work (1) Distance between sites / evenly spaced / spread out (1) Away from human impact / dam / weir / canalised section (1) Who owns the land / not in private land / farmers' fields / open to public / if allowed on land (1) River pollution / avoid areas where river polluted (1) Avoid <u>dangerous</u> animals / mosquitoes (1) Area safe to work / avoid slippery rocks / loose rocks / unstable banks (1) (1 + 1 + 1)	3
2(a)(ii)	Do a pilot study (in local river) (1) Agree methodology / what measurements to take (1) Practise fieldwork techniques / learn how to use equipment / learn how to measure everything (1) Test equipment / make sure equipment works (1) Plan groups / pairs / decide what each student does (1) (1 + 1 + 1)	3
2(b)(i)	Current moves tape / tape floats up (1) Deep / fast-flowing water / might fall in (1) Difficult to lay tape on uneven bed / rocky bed hard to measure along / irregularities on the bed (1) River is too wide / wider than the length of tape / tape is not long enough (1) Cannot see under the water / cannot see river bed / water is muddy (1) Slippery stones underfoot (1) Hard to keep tape in straight line / perpendicular to banks (1) (1 + 1 + 1)	3
2(b)(ii)	Hypothesis is true – 1 mark reserve (✓HA) Only credit paired data from Sites 1 and 5 as follows to support hypothesis At site 1/2 km = 1.75 m and at site 5/17 km = 11.1 m (1D) OR from Site 1 to Site 5 increased / changed by 9.35 m (1D) Hypothesis is false / partly true = 0 (XHA) but credit relevant evidence which supports the correct conclusion. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion of true. (1HA + 1D)	2

Question	Answer	Marks
2(b)(iii)	Gradient / steepness of slope / slope / angle of river bed (1) Volume of water / discharge (1) Width / depth / cross-sectional area of <u>river</u> (1) Tributary joins river (1) Straight or meandering river (1) Rainfall / snowmelt / storm / flooding (1) Bed roughness / smoothness (1) Rocks in <u>river</u> / bedload (1) Plants / vegetation / beaver dams in river (1) Interference by people / dam / weir / straightening channel (1) Solid pollution (e.g. plastic) (1) Sediment being transported / suspended load (1) (1 + 1 + 1)	3
2(c)(i)	Advantage: Quick / saves time / easy to <u>collect or do</u> (1) No decision to make about which rocks to select (1) Collect any rocks from river bed / equal chance of selection (1) Disadvantage: Students may pick rocks they like (1) May not be representative / get small range (1) May all be taken from near bank / same area (1) (1Ad + 1Dis)	2
2(c)(ii)	Callipers	1
2(c)(iii)	<u>Complete</u> graph Plot individual measurement = 18 cm at site 4 (<u>Cross</u>) Average measurement = 15.5 cm at site 4 (<u>Line</u>)	2
2(c)(iv)	No credit for hypothesis conclusion (Average size of) rocks become smaller from site 1 to site 5 / with distance from source (1S) Do not accept: downstream (<u>Part of HA</u>) Increase in (average) size / gets bigger from site 2 to site 3 (1S) <u>Credit 1 mark for paired data supporting hypothesis</u> e.g. Site 1 average size = 29.1 cm (29.0 – 29.2 cm) and site 5 average size = 10cm OR e.g. Site 2 average size = 21.6 cm (21.5 – 21.7 cm) and site 3 average size = 24.5cm Do not accept: references to largest / smallest rocks at sites 1 and 5. (2S + 1D)	3

Question	Answer	Marks
2(d)	Repeat <u>measurements</u> / investigation / experiment / data collection / fieldwork OR repeat during <u>different day</u> / month / season (1) More students measure / compare results with other students (1) Weigh tape down / use chain instead of tape / walk along tape to make sure it touched the river bed (1) Sample more pebbles OR rocks at each site / bigger sample (1) Use <u>systematic</u> sampling technique (1) More sites (1) Measure width / volume / circumference / weight / mass of rocks OR pebbles (1) (1 + 1 + 1)	3
2(e)(i)	<u>Hypothesis can be statement or question</u> <u>Accept speed of flow = velocity</u> e.g. River velocity increases downstream (1) e.g. River velocity decreases downstream (1) e.g. Does river velocity increase downstream? (1) e.g. Does river velocity decrease downstream? (1) e.g. River velocity changes downstream (1) e.g. Does river velocity change downstream? (1) e.g. River velocity decreases when river gets wider (1)	1
2(e)(ii)	<u>Answer must relate to river velocity hypothesis from Q2(e)(i)</u> <u>If hypothesis is inappropriate, incorrect or No Response, credit valid points that relate only to river velocity.</u> Any points relating to non-velocity hypothesis = 0. If they use a non-velocity factor in a hypothesis e.g. width, only credit answers related to method of measuring velocity. <u>Method of measuring velocity using floats</u> Use tape measure to measure fixed distance 5/10 m (1) Put poles / sticks @ 5/10 m / fixed distance / at each end of distance (1) Put float / orange in river at <u>start</u> of distance / higher pole (1) Start stopwatch / timer when float released at start point (1) Measure time taken for float to travel between poles (1) Stop stopwatch / timer when float passes <u>end</u> point / lower pole (1) Repeat method at points across the channel / at same site (1) Repeat method at all / 5 sites / each site (1) OR <u>Method of measuring velocity using flowmeter</u> Stand with flowmeter in centre of river / stream (1) Make sure flowmeter is set at zero (1) Put meter / propeller / flowmeter below surface of water / into water (1) Propeller must face upstream (1) No obstacles in front of propeller / do not stand in front of propeller (1) Read / look at digital reading / display to see speed (1) Take several / repeat readings at points across the channel / at same site (1) Repeat method at all sites / 5 sites / each site (1) (1 + 1 + 1 + 1)	4