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CAMBRIDGE
International Education

Cambridge IGCSE™

GEOGRAPHY **0460/41**

Paper 4 Alternative to Coursework **May/June 2025**

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 2025 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 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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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
Highlighter	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

Question	Answer	Marks
1(a)	High rise buildings/skyscrapers/tall buildings; Modern/new; Buildings are close together; Piers/jetties; Green areas/spaces/greenery/e.g. of vegetation (on waterfront); Offices/apartments; Lots of glass/windows; Unusual or mixed architecture or feature e.g. such as tower/building goes to a point;	**3**
1(b)(i)	Random sampling; Chose any buildings they see/no pattern; Use random numbers to identify buildings/pick numbers out of a hat to generate order; e.g. if number 6 selected look at 6th building; OR Systematic sampling; Regular intervals/regular pattern/equal/specific/certain intervals; Choose every nth (4th to 10th) building along a road/building every 10m/ buildings at road intersections/divide area into sections and choose one building from each section;	**2**
1(b)(ii)	No bias in choice/not selected by looks/equal chance of being chosen; Sample will be representative; Covers whole area (if appropriate);	**2**
1(c)(i)	Pie graph completion for Sunland Shops = 81%, offices = 10%, other = 4% **Note:** Credit 2 marks for dividing lines at 86% (310°) and 96% (346°) 2 ° tolerance 1 mark for shading Credit 2 marks if segments in wrong order and shading correct Credit 1 mark if dividing lines are wrong and shading correct	**3**
1(c)(ii)	Divided bar graph completion for Yuanshen Road Offices = 4%, others = 23% **Note:** Credit 1 mark for dividing line at 77% 1 mark for shading Credit 1 mark if order is reversed and correct shading	**2**

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Question	Answer	Marks
1(c)(iii)	Hypothesis is **true** – 1 mark reserve (✓HA) Statement(s) to support **true** must be **comparative** to 2 maximum e.g. Residential is main/most land use in Yuanshen Road/Yanlord **but** no residential land use in Lujiazui; Shops is main/most land use in Sunland **but** not in other areas; Offices is main/most land use in Lujiazui/Shangcheng Road **but** no offices in Yanlord; **More** residential land use in Yanlord than Sunland (or any other 'more' comparison) Main/most land use is residential in Yuanshen Road/Yanlord **and** offices in Lujiazui/Shangcheng Road; Main/most land use is residential in Yuanshen Road/Yanlord **and** shops in Sunland; Main/most land use is offices in Lujiazui/Shangcheng Road **and** shops in Sunland; More offices than shops in Shangcheng Road **and** more shops than offices in Sunland; Accept CBD as alternative to Lujiazui and rural-urban fringe as alternative to Sunland; Credit 1 mark maximum for paired data to show **differences** e.g. Residential land use in Yanlord = 73% **and** in 0% in Lujiazui; Office land use in Shangcheng Road = 64% **and** in Yanlord = 0% (accept none/no offices for 0%); Residential land use in Yanlord = 73% and office land use in Lujiazui = 58%; Offices are 64% **and** shops are 27% in Shangcheng Road **and** shops are 81% and offices are 10% in Sunland; **Note:** No credit for reference to 'other'. Hypothesis is false/partially true = XHA. Credit any relevant evidence which supports the correct conclusion of true/partly true. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion.	**4**
1(d)(i)	Students stood at a busy point; Two students/more than 1 student counted/two students did same task/two students worked together; Different students counted pedestrians/vehicles/students had specific tasks; Used a clicker to count/record; Student timed on phone/used a timer; Did the count for the same time for pedestrians and vehicles/both groups/to get both results/every student counted for same length of time; 3 @ 1	**3**

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Question	Answer	Marks
1(d)(ii)	Counting starts and finishes at the same time in each area.	**1**
1(e)(i)	Results for Sunland x for vehicles = 20 • for pedestrians = 66 2 @ 1	**2**
1(e)(ii)	The hypothesis is true for one and false for one – 1 mark reserve (✓HA) True for traffic (vehicles) and false for pedestrians/**only** true for traffic (vehicles)/traffic (vehicles) decrease and pedestrians increase/traffic (vehicles) decrease and pedestrians vary or no pattern/traffic (vehicles) have negative correlation and pedestrians no correlation; Credit 2 marks for paired data (need figure and location) e.g. Traffic decreases from 88 at Lujiazui/CBD/closest to CBD to 20 at Sunland/ rural-urban fringe/furthest from CBD; Pedestrians increase from 60 at Lujiazui/CBD/closest to CBD to 66 at Sunland/rural-urban fringe/furthest from CBD; OR Any 3 figures (60 + 2 others) if no pattern identified in statement **Note:** NOT: start and end The hypothesis is true for both traffic and pedestrians/The hypothesis is false for both traffic and pedestrians = XHA. Credit any relevant evidence which supports the correct conclusion of true for one and false for one. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion.	**4**

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Question	Answer	Marks
1(f)	Possible methods include bi-polar survey, questionnaire survey, interview. Use a Bi-polar survey/environmental quality survey; Decide which area to go to/select sites along transect; Produce a bi-polar survey sheet; Use agreed categories/descriptions e.g. litter; Agree on what descriptions mean/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; Circle the location; Look at/observe each feature; Made a decision about/agree the score for each feature; Put a tick/record score in the appropriate row/box; Do a Questionnaire survey/interview; Identify method to select people to ask – random/systematic/stratified; Describe sampling method (2 marks maximum); Credit examples of questions (2 marks maximum); e.g. Which part of the city is noisiest/dirtiest? Which area of the city is most polluted? Ask people to mark on a map of the city where the air is more polluted/where the river is polluted/where the landscape is unattractive etc. Measure air pollution/air quality; Count rubbish/litter; Do the measurement/fieldwork three times **and** get average; **Note:** Only credit **one** method.	**4**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(a)</td><td><table><tr><th>order</th><th>letter</th></tr><tr><td>1</td><td>C</td></tr><tr><td>2</td><td>E</td></tr><tr><td>3</td><td>B</td></tr><tr><td>4</td><td>A</td></tr><tr><td>5</td><td>D</td></tr></table>
5 correct = 3 marks
3 or 4 correct = 2 marks
1 or 2 correct =1 mark</td><td>3</td></tr>
<tr><td>2(b)(i)</td><td>C</td><td>1</td></tr>
<tr><td>2(b)(ii)</td><td>Straight back from sea inland/straight up beach/perpendicular or right angle to sea or beach;
Shortest line to show profile of dunes/change in vegetation;
Line goes through/across sand dunes and beach (includes lines A and D);</td><td>1</td></tr>
<tr><td>2(c)</td><td>Lay tape measure out along transect line;
Measure 10 m along tape measure/10m between two poles;

Put ranging poles at equal or set distances apart/10m apart (NOT break of slope);
Poles must be vertical/straight/upright;
Poles rest on surface/dug into sand by same length;

Hold clinometer/phone/app next to top/agreed height/at eye level on a ranging pole;
Sight other ranging pole at top/same height;
Allow clinometer/pointer to adjust to angle;
Read angle/measure angle on clinometer (NOT gradient/slope);</td><td>4</td></tr>
<tr><td>2(d)(i)</td><td>Completion of profile between 140 and 180m

Note: Line must go through all points marked by cross.</td><td>1</td></tr>
<tr><td>2(d)(ii)</td><td>All area below profile must be shaded/shade sand dunes area

Note: Accept any type of shading.</td><td>1</td></tr>
</table>

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Question	Answer	Marks
2(d)(iii)	**Note: No** credit for partly true. Similarities: Both have embryo, fore and main dunes (any order); The dune features are in the same **order** as the textbook OR embryo – fore – main dune; Main dune is highest/tallest in both; Differences: need comparison 3 dunes in student profile and 4 dunes in textbook diagram; In textbook there is an old dune, **and** none in student profile; Embryo dune is higher than fore dune in student profile, **unlike** textbook profile; 1 mark reserved for similarities or differences **Note:** No credit for comparing size/height between the two profiles e.g. Embryo dune is bigger in student profile. Main dune is same size in both profiles.	**3**
2(e)(i)	Put quadrat on ground/down/on vegetation/in the sand dunes/next to tape measure; NOT: every 20 m/along transect. Estimate percentage of quadrat/count number of squares which include each **type** of vegetation cover; Repeat task at different sampling point/every 20m/up the dunes/along the transect;	**3**
2(e)(ii)	Kite diagram of marram grass completion 220m = 80% (40 + 40), 240m = 70% (35 + 35) **Note:** Credit 1 mark for both plots at 220m and 240m and lines. Credit 1 mark for shading.	**2**

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Question	Answer	Marks
2(e)(iii)	**Yes**/Hypothesis is **true** – 1 mark reserve (✓HA) Statement must be comparative between two vegetation types Accept distances from kite diagram or Table 2.1 Credit 1 mark for evidence e.g. Reeds grow at 40m and marram grass grows at 160m; Reeds grow at 20 and 40m **and** heather grows between 80 – 200 m OR 60 – 220m; Marram grass grows between 120 – 240m **and** couch grass grows between 180 – 240m OR 160 – 240m; Reeds grow nearest to sea **and** marram grass/couch grass grows furthest inland; Reeds grow nearer the sea **than** marram grass; Reeds at short distance from sea and heather/marram grass at middle distance; Credit 1 mark for comparative statistics e.g. 40% covered by heather at 160m and 80% covered by marram grass at 220m **Note:** Hypothesis is false/partly true = XHA. Credit any relevant evidence which supports the correct conclusion. If no hypothesis conclusion ^HA and credit evidence which supports the correct conclusion.	**3**
2(f)	Another student **checks** measurements/more students do the measurements and **compare/average their results**; Measure at shorter intervals/less than 20m; Measure along more than one dune profile/more transects/another part of beach; Use the quadrat more times for each distance/at each sampling point; 2 @ 1	**2**
2(g)(i)	Provide/support habitat; Support a variety of flora and fauna or e.g./ecosystems/vegetation/allow plants to grow; Scenery; Tourist attraction; Barrier against sea/high tide/waves or reduces flooding/erosion/protects settlements against sea or erosion; 2 @ 1	**2**

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Question	Answer	Marks
2(g)(ii)	Notice boards/visitor centre/information signs (e.g. keep off the dunes)/ education boards/posters/education tours/education about dunes; (Marked/signed/artificial) footpaths/paths; Boardwalks across area; Fenced off areas/fences/closed areas; Stopping vehicle/cycle access or e.g.; Guides/rangers; Designated picnic/barbeque sites; Litter bins/fines for dropping litter; Planting vegetation e.g. grass, buckthorn; Old Christmas trees (to protect bare areas); Plastic sheets/nets cover dunes; Adding sand to the **dunes**/replenishing dunes; Revetments/sea wall/gabions/adding rocks/rock armour/riprap; 4 @ 1	**4**

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