CAMBRIDGE
International Education

Cambridge IGCSE™

GEOGRAPHY **0460/42**

Paper 4 Alternative to Coursework **October/November 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 October/November 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
HA	Hypothesis answer used with another annotation e.g. tick, cross or omission mark
Highlighter	Highlighting areas of text
^	Omission mark / further detail required
J	Just enough information to answer the question
LNK	Two statements are linked
REP	Repetition
{	Open bracket
}	Close bracket
SEEN	Indicates that the point has been noted, but no credit has been given or Placed on all blank pages to indicate the examiner has seen every page of the script

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Question	Answer	Marks
1(a)	An area on edge / outskirts of the city / city expands OR spreads towards rural area / outer layer or zone of city (1) Zone / point / meeting place / between city or urban / built-up area and countryside or rural / open land / open spaces (1) It contains urban and rural land uses / features (1) (1 + 1)	**2**
1(b)(i)	Give instant readings / faster / saves time / quick (1) Easy or simple to use / clear to read or use / easier to reset / large digital numbers (1) Don't need to know how to read a thermometer / results displayed (1) Exact figures / accurate / precise / reliable / can be DP (1) Less chance of making mistake in reading / misreading (1) Portable / can be used at more than one site / easy to carry (1) Can download to computer / store data (1) Safer if dropped because no mercury / less risk of injury / less fragile (1) Can give data in °C and/or °F (1) (1 + 1 + 1)	**3**
1(b)(ii)	Take more than one reading with different digital / another thermometer / device / instrument (1) Get other students / groups to take measurements (1) Take more readings and calculate the average / compare results / find anomalies (1) (1 + 1)	**2**
1(c)(i)	Plot correct symbol/annotations. No credit if wrong symbol. Morning temperature (X) = 18.5 °C and afternoon temperature (•) = 27 °C (1 + 1)	**2**

Question	Answer	Marks
1(c)(ii)	Hypothesis is **true** – 1 mark reserve (✓HA) (Average) Temperatures are higher in <u>both morning and afternoon</u> (1S) Maximum 2 marks for data (2D) from 6 options below: <u>2 marks for paired average figures</u> Morning in city centre = 32.9 ºC and in rural-urban fringe = 25.4° / +7.5 °C (1D) Afternoon in city centre = 36.4 ºC and in rural-urban fringe = 31.7° / + 4.7 °C (1D) <u>1 mark for paired highest figures (1D)</u> Highest temp.in centre = 41.9 °C and in rural-urban fringe = 33.3° / +8.6 °C OR Highest temp.in centre = 43.3 °C and in rural-urban fringe = 42.9° / +0.4 °C <u>1 mark for one exception (1D)</u> Grassland in morning in city is 27.7° and in rural 28.1° OR Grassland in afternoon in city is 29° and in rural 32.4° 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. (1HA+ 1S + 2D)	**4**
1(c)(iii)	Buildings / industry / factories increase heat / temperatures (1) Exhaust fumes / vehicles / cars increase heat / temperatures (1) Dark ground surface / tarmac / concrete absorbs or radiates <u>heat</u> (1) Buildings / trees provide shelter from wind (1) Buildings / trees provide shade from sun (1) Open space / vegetation / trees / plants reduce temperatures (1) (1 + 1)	**2**
1(d)(i)	Anemometer	**1**
1(d)(ii)	Draw bar for 1.9 m/s at footbridge.	**1**
1(d)(iii)	Hypothesis is **partly true** - 1 mark reserve (✓HA) <u>(</u>Average) Wind speeds are high(er) in city centre in <u>morning</u> but low(er) in city centre in <u>afternoon</u> OR higher in rural-urban fringe in <u>afternoon</u> OR Hypothesis is true in the morning but not in the afternoon (1S) (Average) morning wind speeds = 1.5 m/s in city centre and 1.1 m/s in rural-urban fringe OR 0.4 m/s higher BUT (average) afternoon wind speeds = 0.8m/s in city centre and 1.1 m/s in rural-urban fringe OR 0.3 m/s lower (1D) *Hypothesis is true / false = 0 (X HA) but credit relevant evidence which supports the correct conclusion.* If no hypothesis conclusion ^ HA and credit evidence which supports the correct conclusion. (1HA + 1S + 1D)	**3**

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Question	Answer	Marks
1(d)(iv)	Lines of trees and woodland (1) Gaps between high buildings (1) (1 + 1)	**2**
1(e)	The person stands in an open area / away from any obstruction / trees (1) He holds the wind vane above his head / up in the air / holds it high / at certain height (1) He turns the wind vane so that its direction mark labelled 'N' points to compass direction north (1) The direction the <u>arrow / pointer</u> points to where the wind is blowing from (1) (1 + 1 + 1)	**3**
1(f)(i)	Practice using / become familiar with the equipment / understand / know how to use equipment / how to make measurements (1) Reduces errors / mistakes / no errors / more accurate (1) Make sure equipment works (properly) / to test it before use (1) (1 + 1)	**2**
1(f)(ii)	Get more / different results (1) See if same pattern / trend of results is repeated or if results change (1) Compare / check results (1) (1 + 1)	**2**
1(f)(iii)	Some sites may have anomalous results (1) Replace inappropriate sites OR one example e.g. woodland or grassland in urban park / main road in front of school / artificial grass on school site (1)	**1**

Question	Answer	Marks
2(a)	Densely populated / crowded OR congested housing (1) Polluted water / unclean OR dirty water / water-borne diseases / malaria / cholera / typhoid / diarrhoea / attracts mosquitoes (1) Disease spreads <u>quickly</u> / <u>more easily</u> (1) Poor sanitation / drainage / sewage disposal / lack toilets (1) Litter OR waste attracts vermin OR rats (1) Poorly built or constructed or unsafe houses / homes OR houses could collapse (1) Little protection against flooding / heavy rain / damp housing (1) (1 + 1)	**2**
2(b)(i)	Impossible / impractical to give the questionnaire to all residents (1) Would take too much time / need too many researchers / is quicker (1)	**1**
2(b)(ii)	Collected / physically collected by people doing the investigation / fieldwork / collected by yourself (1) Collected <u>directly</u> from the people that are sampled (1) Collected by individuals doing interviews/questionnaires (1) Not obtained from another source / not available elsewhere (1) First people to collect this data / first hand data/ not collected before (1)	**1**

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Question	Answer	Marks
2(b)(iii)	Hypotheses relate to all residents, not one age/gender group (1) Only using the questionnaires with one group of residents / it does not take answers / opinions from men / other women (1) Not representative of the whole population / lack variety / may produce a narrow range / similar answers (1) Will not know who are 'mothers'/ could be female relatives /friends / may not be 'mothers' (1) Not all mothers in area can afford to send children to school (1) (1 + 1 + 1)	**3**
2(b)(iv)	One mark for 1 of three methods listed; 1 for description; 1 for explanation. Stratified (1M) Ask a balanced number or proportionate number of residents of different age groups and gender (1D) Sample would be similar to structure of the whole population (1E) Not biased / fair test (1E) Systematic (1M) Choose residents at regular intervals / every nth or 10th resident who passes them (1D) Avoids asking people who are together / from same group / family / not biased / fair test (1E) Random (1M) Ask anybody / no designated order / pattern OR Use random number tables or similar method (1D) Not biased / fair test / equal chance of being selected (1E) (1M + 1D + 1E)	**3**
2(c)(i)	Bar to show 48 suffered from typhoid in squatter settlement	**1**
2(c)(ii)	Hypothesis is **true** – 1 mark reserve (✓HA) More people suffer from disease in the squatter settlement with any two or more examples from cholera / diarrhoea / tuberculosis / typhoid OR most / four out of six are higher in squatter settlement OR only two exceptions / malaria and diabetes in permanent settlement (1S) Credit 1 mark for paired data of difference in **total** number of people affected: 259 in squatter settlement and 161 in permanent housing area / 98 more in squatter settlement (1D) No credit for comparing individual disease numbers. 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. (1HA + 1S + 1D)	**3**

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Question	Answer	Marks
2(d)(i)	Complete pie graph of permanent housing area 21% go to government doctor, clinic or hospital, 74% go to private doctor or clinic. Must plot /shade in same order as key and pie graph above. 1 mark for dividing line at 26% (93.6° - accept 93/94°) 1 mark for shading (1 + 1)	**2**
2(d)(ii)	No credit for hypothesis conclusion Most residents in both areas use private/non-government health facilities OR Fewer residents in both areas use government health facilities (1S) 2 marks for data (accept people or %) 69% private OR 75% non-government health facilities in squatter settlement OR Only 25% use government health care in squatter settlement (1D) 74% private OR 79% non-government health facilities in permanent housing area OR Only 21% use government health care in permanent housing (1D) (1S + 2D)	**3**
2(e)(i)	Complete divided bar of permanent housing area 1 mark for dividing lines at 87% and 98% 1 mark for shading (1 + 1)	**2**
2(e)(ii)	More people in the squatter settlement say long distance to travel (is the main reason) (1) More people in the squatter settlement say limited / inconvenient opening times (is the main reason) (1) More people in the permanent housing area say poor quality of treatment (is the main reason) (1) More people in the permanent housing area say long waiting times (is the main reason) (1) **Notes:** can answer from the 'less people' angle, but do not double credit. Answers must compare. (1 + 1)	**2**
2(f)	More / better hospitals / clinics / health facilities (1) Medical centres open for longer hours (1) Train / provide more doctors / nurses / medical staff (1) Improve water supply / piped / clean water / safer water (1) Improve sanitation / drainage / sewage (1) Refuse / rubbish collection / more litter bins / make laws against littering (1) Education about health / hygiene (1) NGO / charities provide more healthcare facilities (1) Increase vaccinations / access to medicine / more inoculations (1) (1 + 1 + 1)	**3**

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Question	Answer	Marks
2(g)	Maximum 1 mark for a generic idea: visit both areas / do it in groups / pairs / safety issues / wear Hi-Vis / use recording sheet / record results / compare results / taking phones / when to do it (1) Choose a hypothesis to investigate with example e.g. Housing conditions are worse in permanent settlement (statement or question) (1) Talk to people who live in the two areas / interview them about… (1) Take photos of different houses to show different housing conditions … (1) Collect secondary data from internet / local government records / census (1) Make a podcast / video / blog to show something… (1) Draw field sketches (<u>of houses</u>) and label them to show different housing conditions … (1) Do a housing quality survey / bi-polar survey (1) <u>Count / tally</u> different types of building materials / number of brick-built houses (1) Observe / look at / make notes on / write a description of / walk round something e.g. housing conditions / roofs / windows (1) Credit expansion of ideas related to various methods e.g. Bi-polar method (1) Agree on different descriptions of housing conditions (1) Create a scoring sheet (1) Decide range of scores / score positive and negative (1) Decide on scores at each site (1) Add ticks to sheet (1) Total scores on sheet (1) Compare and agree on scores (1) (1 + 1 + 1 + 1)	**4**

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