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Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/42**

Paper 4 Alternative to Coursework **October/November 2022**

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 2022 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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Question	Answer	Marks
1(a)(i)	Moving from one country to another / across country boundary / moving to or into another country / moving between countries / across borders.	**1**
1(a)(ii)	Attract (to/into) / encourage / draw people **to** an area / country.	**1**
1(b)(i)	Systematic	**1**
1(b)(ii)	They were born in Kenya / not a migrant / may be tourist / visitor; They were in a hurry / no time / refused to answer / take too long / busy / don't want to / not interested / on the phone; Don't speak the same language / English as the student; Don't understand the questionnaire / can't read or write / illiterate; A child may be selected / not old enough / too young; Concerned about information being reported to authorities/privacy of the individual / may be illegal migrant / use for scams / makes them uncomfortable / sceptical re trust / too sensitive / personal;	**3**
1(c)	Job / higher wages; Low cost of living / better quality of life / better standard of living; Education opportunities; Improved / better healthcare / sanitation / water supply; Family live in Kenya / marriage; Escape from war / persecution / find peace / safety / no war / practise beliefs safely / economic crisis / political tensions; Weather / climate (specific) e.g., drought; It's the closest country; NB: examples: can be push or pull but do not double credit.	**2**
1(d)(i)	3 migrants from Ethiopia – thinnest line; 25 migrants from India – thickest line; Arrows must start in Ethiopia and India, be in the right direction and have an arrow at the right end.	**2**
1(d)(ii)	<u>Examples:</u> Shows by arrows where / the countries migrants came from / to / direction of movement; Shows by width of arrow / scale number of people; **OR** Shows / can see where from / direction OR number (MAX 1).	**2**

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Question	Answer	Marks
1(d)(iii)	Hypothesis is **False –** 1 mark reserve (✓HA); 44 (%) came from African countries & 56 (%) came from countries outside Africa / 8 (%) more from countries outside Africa; Hypothesis conclusion is true / partially true = 0 (XHa) If no hypothesis conclusion ^HA & credit evidence. NB: allow this exception only as below: Accept Hypothesis is **True** (1 mark reserve (√ HA) IF relate total in Africa to separate totals in other 3 continents. **TRUE** (1 HA) because Africa has 44 (%) and Asia has 31 (%), Europe has 15 (%) and North America has 10 (%) (1).	**2**
1(e)(i)	Expect exact words or slight variations: 1. Crime and lack of security; 2. Traffic congestion; 3. Intolerance by people.	**3**
1(e)(ii)	NB: must be in order of key with correct shading. Plot - Intolerance = 8%, poor housing = 16%, traffic congestion = 28%. 2 marks for dividing lines at 56% (158° from top a/c), & 72% (101° from top a/c). Allow 1° tolerance either side.1 mark for shading.	**3**
1(e)(iii)	**Yes / agree** with hypothesis – 1 mark Reserve (✓HA); Main / highest / major / most problem of migrants from Europe and/or N. America / India is crime & lack of security; Main / highest / major / most problem of migrants from Somalia is high cost of living; Main / highest / major / most problem of migrants from other countries is intolerance by people; Note: no data mark for comparative highest percentages in above statements. Need positive answers NOT negative e.g., High cost of living not a problem for Europe etc. Credit 1 Reserve mark for paired data from two areas to show difference with the same problem: e.g., Crime / lack of security = 13 (52%) migrants from Europe and/or North America & 0 from other countries. (If use % must have % symbol) e.g., High cost of living = 10 (40%) migrants from Somalia and India 2 (8%). No / do not agree with hypothesis conclusion = 0 (XHa) If no hypothesis conclusion ^HA & credit evidence.	**4**
1(f)(i)	Market trader = tertiary; I.T. consultant = quaternary.	**2**

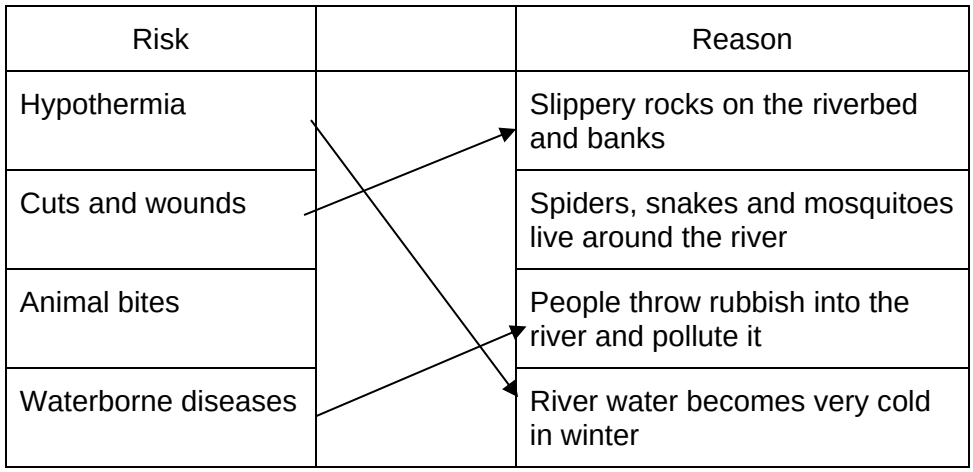
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Question	Answer	Marks
1(f)(ii)	NB: examples: looking for differences. No credit for statistics e.g., adding up job types. Ignore all references to tertiary and primary. Somalia migrants inc. some/few secondary and Europe / N. America none **OR** more secondary jobs in Somalia; Europe / N. America migrants inc. quaternary and Somalia none **OR** more quaternary jobs in Europe / N. America; **OR** Somalia migrants inc. secondary and Europe / N. America inc. quaternary; Accept reverse of answers below e.g., Less from Somalia: Jobs from Europe / N. America are more skilled; Jobs from Europe / N. America require more education / higher qualifications; Jobs from Europe / N. America are higher paid; Jobs from Europe / N. America more office-based; Jobs from Europe / N. America more varied; Jobs from Somalia are more retail / selling / self-employed; Jobs from Somalia are more service; Jobs from Europe / N. America are more finance; Jobs from Europe / N. America are more management; Jobs from Europe / N. America are more technological;	**4**

Question	Answer	Marks
2(a)	<table><tr><td>Increase further downstream</td><td>Decrease further downstream</td></tr><tr><td>channel depth</td><td>roughness of the channel bed</td></tr><tr><td>discharge</td><td>slope angle (gradient)</td></tr><tr><td>load quantity</td><td></td></tr></table> Note: ignore any extra words in rows; credit the correct 3 answers in the correct columns.	**1**

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Question	Answer	Marks
2(b)	 (Animal bites already completed) 3 correct = 2 marks 1 or 2 correct = 1 mark.	**2**
2(c)	<u>Examples:</u> Accessibility / easy to get to / not private / no obstructions / open land; Equal / similar / regular distance between sites; In different sections / stages of the river; Away from human impact / buildings / houses; Depth / width of river; Velocity / fast flowing / strength of current; Safety regarding dangerous animals / pollution / avoid rocky banks to avoid slipping / avoid slippery areas; Continuous flow / not near waterfalls / rapids;	**3**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(d)(i)</td><td>
<table>
<tr><td>1st</td><td>Use the tape measure to measure a 10m section of the river.</td></tr>
<tr><td>2nd</td><td>Mark the beginning and end of the measured section with a bamboo pole.</td></tr>
<tr><td>3rd</td><td>Put an orange in the river at the first pole and start the stopwatch.</td></tr>
<tr><td>4th</td><td>Stop the stopwatch when the orange reaches the second pole.</td></tr>
<tr><td>5th</td><td>Record in a fieldwork notebook the time taken for the orange to travel 10m.</td></tr>
</table>
NB: accept some paraphrasing but not initials / numbers/ letters as shorthand.

3 or 4 correct = 2 marks, 1 or 2 correct = 1 mark.
</td><td>2</td></tr>
<tr><td>2(d)(ii)</td><td>Number 7;

Rejected as anomaly / incorrect or inaccurate measurement / error in Timing;
Replaced to give a more reliable / accurate average result / it makes a misleading average;
Time too long compared to others;
Too high compared to others;
Too slow compared to others;
Result stood out / not in line with others / out of range;

NB: if wrong measurement number is given then no credit for reason unless it is 47 secs OR 0.21m/s which is correct number/amount of seconds/velocity for measurement 7.</td><td>2</td></tr>
<tr><td>2(d)(iii)</td><td>Bar drawn to 0.38 m/sec.</td><td>1</td></tr>
<tr><td>2(d)(iv)</td><td>Hypothesis is true between two sites – 1 mark reserve (✓HA);

Velocity increases from site 1 to site 2;
From 0.29 m/sec to 0.38 m/sec / increased by 0.09 m/sec;

Hypothesis conclusion is completely true / false = 0 XHa)
If no hypothesis conclusion ^HA & credit evidence.</td><td>3</td></tr>
<tr><td>2(d)(v)</td><td>Do their fieldwork at six sites along the river</td><td>1</td></tr>
<tr><td>2(e)(i)</td><td>Callipers / pebbleometer / micrometre / screw gauge</td><td>1</td></tr>
</table>

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Question	Answer	Marks
2(e)(ii)	Examples: Pebbles selected may not be typical / representative of the pebbles at that site /anomaly; All pebbles may have been taken from same area of riverbed / not across channel / taken from same place / may be clustered; Student chooses particular pebbles / may be biased;	**2**
2(e)(iii)	Plot X at 12.8cm above Site 3**.** Plot average line at 8.3cm above Site 3.	**2**
2(e)(iv)	No / results do **not** support hypothesis (✓HA); Increase in size from site 1 to site 2/3 / size increases downstream; Credit 1 mark Reserve for any TWO of following sites that show increase e.g., site 1 average = 6.8cm to site 2 average = 8.2cm **OR** site 1 average = 6.8cm to site 3 average = 8.3cm. Yes / hypothesis is supported / partly supported = 0 (XHa) If no hypothesis conclusion ^HA & credit evidence.	**3**
2(f)(i)	Examples: **Problem**: Classification is subjective / based on student judgement / one person's judgement; Pebble classes are very similar / hard to distinguish between classes; **Solution**: Other students use roundness scoring chart to check decision / compare results; 1 mark for problem & 1 mark for solution	**2**
2(f)(ii)	Completion of divided bar graph for site 1 Plot: slightly angular = 6 @ 10, slightly rounded = 1, rounded = 1 @ 11. Must be plotted in order of key. 1 mark for two dividing lines at 10 & 11; 1 mark for correct shading**.**	**2**

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Question	Answer	Marks
2(f)(iii)	Examples: can be any 3 statements; data not compulsory OR two statements with 1 supporting piece of data: **Generic mark for overall change downstream:** Less angular downstream / more rounded downstream **OR** between Sites 1 and 3; e.g., 10 angular @ Site 1 and 0 angular @ Site 3 **OR** e.g., 2 rounded @ Site 1 and 12 rounded @ Site 3 **OR** e.g., 10 angular @ Site 1 and 12 rounded @ Site 3. NB: data above must be aggregated not individual columns. **Specific mark** with statistics supporting same pebble type from same column. Must refer to **Sites** for specific marks, do **not** credit upstream/downstream for specific statements below. To gain a data mark it must support a statement. Examples: No very rounded pebbles at site 1 but most / more at Site 3; 0 at Site 1 but 7 at Site 3; Most slightly angular at Site 1 but less at Site 2/3; 6 at Site 1 but 2 at Site 2 OR 0 at Site 3; No angular at Site 2 but some at Site 1; 0 at Site 2 but 3 at Site 1;	**3**

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