Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/41**

Paper 4 Alternative to Coursework **October/November 2020**

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 2020 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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[Turn over

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.

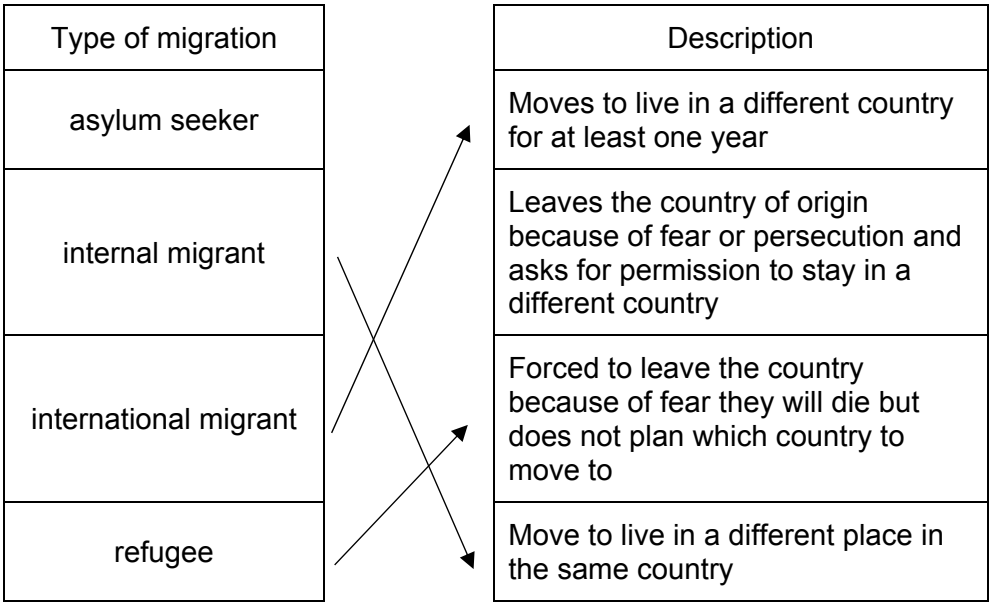
GENERIC MARKING PRINCIPLE 5:

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)	 3 correct = 2 marks 1 or 2 correct = 1 mark	**2**
1(a)(ii)	Push factors: reasons / something / negative factors which make / encourage people to leave / go away from an area / country / emigrate Pull factors: reasons / something / positive factors which attract people / make people want to come to an area / country / immigrate No credit for words 'push' and 'pull'	**2**
1(b)(i)	Use random number tables to generate order to ask people / pick numbers out of a hat Choose people who fit the sequence identified OR Ask anybody / next person / no pattern / don't consider age / sex (for 1 mark)	**2**
1(b)(ii)	Safety of students / dangerous place Migrants may be reluctant to answer questions / not talk to strangers / will not cooperate Migrants won't answer truthfully / may lie Migrants may be illegal immigrants Migrants are concerned about information being reported to authorities / scared / feel threatened Language difficulties / people cannot understand questionnaire / do not speak the local language / English / cannot read and write / illiterate 3 @ 1	**3**
1(c)(i)	Plot bar for Eritrea = 6	**1**

Question	Answer	Marks
1(c)(ii)	Hypothesis is **true** – 1 mark reserve 27 migrants from Africa and 13 from Asia OR 27 out of 40 from Africa / 67.5% from Africa No credit for Hypothesis is false If no hypothesis conclusion credit evidence	**2**
1(c)(iii)	Collected from other sources / collected by others / already available / not collected by self or students / collected before / not first-hand / second hand / obtained previously	**1**
1(c)(iv)	Need comparison e.g. Earlier year there are most migrants from Europe and later year there are most migrants from Africa Earlier year there are highest number of migrants from Romania and later year there are highest number of migrants from Syria (or any two countries) Earlier year there are migrants from 9 countries and later year there are migrants from 11 countries / (2) more countries in later year Earlier year there are more from Europe Earlier year migrants came from Europe and later year none / they didn't Earlier year fewer from Africa / more in later year More in later year from Asia / fewer in earlier year Earlier year there were migrants from Albania and none in later year (accept individual countries) Credit comparable statistics as alternatives e.g. earlier year 3 from Africa and later year 27 from Africa / 24 more in later year Accept before / then / 5 years ago / secondary data / Table 1.2 / 2nd table as **earlier** Accept now / newer / students' data / Table 1.1 / 1st table as **later** 2 @ 1	**2**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(d)(i)</td><td>Plot push factors on divided bar graph

<table><tr><td>War or terrorism</td><td>14</td></tr><tr><td>Racial or religious intolerance</td><td>7</td></tr><tr><td>Natural hazard or famine</td><td>3</td></tr><tr><td>High crime rate</td><td>1</td></tr></table>
2 marks for accurate dividing lines at 14/21/24/25
1 or 2 correct = 1 mark, 3 or 4 correct = 2 marks

If 1st line at 14 is wrong credit 1mark for other dividing lines if appropriate

1 mark for labels

2 marks maximum if plotted from ‘top down’ – 1 mark for lines and 1 mark for labels</td><td>3</td></tr>
<tr><td>1(d)(ii)</td><td>No / Hypothesis is false – 1 mark reserve

Push factors are more important / there are more answers about push factors / more migrants identify push factors / push factors affect more than pull factors
Highest scoring factor is war on terrorism which is a push factor
Top push factor is more than top pull factor

Total push factors = 25 (62.5%) and pull factors = 15 (37.5%) / 10 more people give push factors in their answer
Most suggested / most common / top push factor is war / terrorism = 14 and most suggested / most common / top pull factor is employment / higher wages = 8

Credit 1 mark for statement and 1 mark for statistics which must support statement

No credit if Hypothesis is true
If no hypothesis conclusion then credit evidence</td><td>3</td></tr>
<tr><td>1(e)(i)</td><td>Plot Germany = 11, France = 4
2 @ 1</td><td>2</td></tr>
<tr><td>1(e)(ii)</td><td>Somalia to Italy to United Kingdom</td><td>1</td></tr>
<tr><td>1(e)(iii)</td><td>Transport available to nearest country

Can’t afford / too expensive for them to travel further / raise funds to travel further / earn money to move on / cheaper to go to nearest country

Don’t know their destination</td><td>2</td></tr>
</table>

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Question	Answer	Marks
1(f)	Advantages Bigger work force / more workers / will do jobs other people won't do Lower cost / lower wages / willing to work long hours Skilled workers Migrants set up businesses Migrants spend money in country Migrants pay taxes Bring different culture / traditions Disadvantages Competition for jobs with local people / higher unemployment Racial / religious / cultural conflict / extremist views Pressure on / not enough schools / hospitals Shortage of housing / create camps / homelessness / not enough places to live Money earned by migrants is sent to home country / remittances Specific problem related to migrants speaking different languages e.g. cost of translating documents into many languages	**4**

Question	Answer	Marks
2(a)	Increase Amount of load carried by river River discharge Decrease Size of individual load particles 3 correct = 2 marks, 1 or 2 correct = 1 mark	**2**
2(b)(i)	Accessibility /easy to get to / not private land Distance between sites / distance between sites should be equal / sites should be in different sections of river Away from human impact / buildings / houses / towns / people Depth / width / not too deep / not too wide Velocity / not fast flowing / strength of current / not strong current Safety regarding dangerous animals / pollution / not in areas with dangerous animals Presence of waterfalls / not near / away from waterfalls / rapids 3 @ 1	**3**
2(b)(ii)	Discharge / velocity / depth / width / amount of water in river may change / so they remain constant Weather / rainfall might change / on same day should stay the same	**1**
2(c)(i)	Use **tape measure** to measure fixed / certain distance / 10 m along river (more than 5m) / measure distance travelled by float / measure distance between poles Put **ranging poles** to mark out certain distance / 10 m distance (more than 5 m) / at start and end of fixed distance OR 'put the ranging poles in the river 10m apart using a tape measure' = 2 marks Put **float** (into river) at start of measured distance / at first pole / travels from starting point to finish / travels between two poles / travels the measured distance Start **stopwatch** when float is put in river and stop stopwatch when float reaches end of measured distance / reaches second pole / stopwatch measures time taken to travel measured distance Credit 1 mark for each piece of equipment. Don't need name of equipment.	**4**
2(c)(ii)	Plot site 5 = 0.64 m/s and site 6 = 0.25 m/s 2 @ 1	**2**

Question	Answer	Marks
2(c)(iii)	Hypothesis is **false** – 1 mark reserve No pattern / relationship is shown / pattern varies / is random / decrease in velocity / velocity goes lower then higher / velocity goes higher then goes down / velocity fluctuates / uneven velocity / lowest velocity or slowest at site 6 / lowest velocity is furthest downstream 1 mark for paired data from two sites that show velocity is **slower** at some sites downstream – e.g. 0.82 m/s at site 2 and 0.25 m/s at site 6 No credit for upstream / downstream – must include number of site No credit for Hypothesis is correct / partly correct If no hypothesis conclusion then credit evidence	**3**
2(d)(i)	(Use tape measure) to measure certain distance / 10 m (more than 5 m) Hold / put (ranging) poles at either end of measured distance / 10 m apart Put two (ranging) poles vertically on river bed Put measuring tape at same height / top on each pole / use tape to create a line between poles Holds clinometer / measuring tool / gun next to top / at certain height on (ranging) pole / where tape is on the ranging pole Line up identified position / top on the other pole / look along the tape measure **Use clinometer** to measure angle / read off angle / read off degrees	**4**
2(d)(ii)	Draw site 5 = 6°	**1**
2(d)(iii)	Hypothesis is **false** – 1 mark reserve Gradient **varies** / fluctuates / changes downstream / decreases then increases / changes randomly e.g. Gradient = 7° at site 1, 2° at site 4 and 7° at site 6 (to show variation) Gradient is **the same** at sites 1 (upstream) and 6 (downstream) e.g. Gradient = 7° at site 1 and 7° at site 6 (to show equal) Gradient **increases between sites** downstream e.g. Gradient = 4° at site 2 and 7° at site 6 (to show increase) Credit 1 mark for paired data to support a statement Need number of site and gradient If there is no valid statement credit 1 mark for any two statistics which **don't** show a decrease No credit for Hypothesis is true or partly true If no hypothesis conclusion then credit evidence	**3**

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Question	Answer	Marks
2(e)	Take more measurements **to** check accuracy / calculate an average Take measurements at more sites along the river Get another student to check measurements / compare measurements in pairs Take measurements at different points across river cross-section Do a pilot study / practice measurement technique before starting fieldwork Repeat investigation on different days / month / season **to** compare results Use a flowmeter 3 @ 1	**3**
2(f)	Channel width Put poles either side of river / on both banks / one student on either bank (Stretch) tape measure across river / from bank to bank / side to side / pole to pole Keep tape measure taut/ horizontal / stretched / tight Measure perpendicular / at right angles to banks / straight across / directly opposite Measure where tape touches the bank Channel depth – either using a ruler or stone attached to rope Rest ruler / measuring stick / stone on river bed / bottom of channel Measure vertically / perpendicular to surface Measure where water level is / wet part of ruler or rope / where the water reaches on ruler / rope Measure at points across channel / at the sides and in the middle Credit metre = ruler, but not measuring tape 1 mark reserve for width and depth	**4**

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