Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/43**

Paper 4 Alternative to Coursework **May/June 2020**

MARK SCHEME

Maximum Mark: 60

Published

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the June 2020 series for most Cambridge IGCSE™ and Cambridge International A & 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)	Distance from work / shops / services Access to schools Price of property / ability to afford property Quiet / peaceful Amount of air pollution Presence of amenities / water / gas / electricity Family live in the area 3 @ 1	**3**
1(b)(i)	Stratified: Find out gender or age balance of residents Ask a balanced number or proportionate number of residents of different age group and gender Systematic: Choose residents at regular intervals / every tenth resident who passes them Random Use random number table or similar method	**2**
1(b)(ii)	Tally method / tally chart / tallying	**1**
1(c)(i)	Draw flow lines for Formby (10) and Kirkby (2)	**2**
1(c)(ii)	Shade Prescot (15)	**1**
1(c)(iii)	Fig. 1.3 Flow line map – 1 mark Shows exact / precise numbers Easy to compare different places Visual / clear / detailed 2 @ 1 OR Fig. 1.4 Choropleth map – 1 mark Shows overall pattern Easy to identify similar areas / pick out groups Visual / clear / detailed 2 @ 1	**3**
1(c)(iv)	Pictogram	**1**
1(c)(v)	Hypothesis is **true** / **yes** / **agree** – 1 mark reserve R&D employees mainly live in areas further from factory / assembly workers mainly live in areas nearer factory Most R&D workers from Southport, most assembly work employees from Liverpool Credit 2 marks for comparative data e.g. From Southport: 16 R&D employees, 1 assembly work employee 16 R&D workers from Southport & 23 assembly workers from Liverpool If no hypothesis conclusion credit evidence	**4**
1(d)(i)	Complete pie graph 2 marks for dividing lines, 1 mark for shading	**3**

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Question	Answer	Marks
1(d)(ii)	Hypothesis is **true for one group of employees** – 1 mark reserve True for R & D employees Credit data for 2 marks e.g. 172 / 200 or 86% of R&D employees agree with hypothesis, and 27 / 200 or 13% of assembly work employees agree 68 / 200 or 34% assembly work employees think that social disorder is a main disadvantage If no hypothesis conclusion credit evidence	**4**
1(e)(i)	Air pollution Difficult for emergency services to get through Lateness to work / loss of working time Frustration / anger / 'road rage' 2 @ 1	**2**
1(e)(ii)	Population growth in urban areas / migration to urban areas / many people live in urban areas Road network not designed for large numbers of vehicles / roads are too narrow / not enough roads Growth in car ownership / many more people have cars Many people commute / travel to work at the same time / rush hour many people work in the city centre Inadequate public transport / cycles lanes etc. Roadworks / accidents Many HGVs / delivery vehicles ion the roads	**4**

Question	Answer	Marks
2(a)	Water soaking into the soil from the ground	**1**
2(b)(i)	Push pipe into ground Amount of water poured into pipe / water poured into pipe up to 120 mm Use scale to measure changing height of water in pipe Use stopwatch to time until water infiltrates / sinks into ground	**4**
2(b)(ii)	Complete site 4 measurements 2 marks if 3 plots correct 1 mark if 1 or 2 plots correct	**2**
2(b)(iii)	Water level falls less at site 1 / more at site 5 Falls 25 mm at site 1 and 118 mm at site 5	**2**
2(b)(iv)	$\frac{120-48}{10}$ OR $\frac{72}{10}$	**2**
2(b)(v)	Plot 3.5 mm (A) and 15.0 mm (C) at site 6 2 @ 1	**2**

Question	Answer	Marks
2(b)(vi)	Transect line B supports hypothesis **-** 1 mark reserve Infiltration rate increases at each site away from the lake Increases from 1.5 at site 1 to 17.1 at site 6 Transect line A fluctuates OR Transect line C fluctuates but overall decreases If no hypothesis conclusion credit evidence	**3**
2(c)(i)	Put tape measure out along transect line Measure distance between ranging poles Put poles at equal distance put ranging poles at six sites on transect Ensure poles are vertical Rest poles on surface Student holds clinometer next to top / at agreed height on ranging pole / at eye level Sight other ranging pole at top / same height Read angle / measure angle / record angle	**4**
2(c)(ii)	Plot point for site 6 (9° and 15 mm)	**1**
2(c)(iii)	Hypothesis is **false** – 1 mark reserve No relationship between rate of infiltration & slope Credit 1 mark for paired data e.g. Highest infiltration / 20 mm = 4° slope and lowest infiltration / 13.3 mm = 10° Infiltration rate of 13.3 mm = slopes of 2° and 10° If no hypothesis conclusion credit evidence	**3**
2(d)	Infiltration is more where there is more vegetation Highest infiltration = dense grass / papyrus / bushes Lowest infiltration = bare soil / scrub grass Credit 1 mark for paired data to show contrast (need infiltration rate and vegetation at two contrasting sites	**3**
2(e)	People compress / compact the ground / ground hardens Water cannot soak into the ground as quickly / less gaps in soil Lowers infiltration rate / slows down infiltration / harder to infiltrate Impermeable footpaths may be built for tourists reducing infiltration	**3**

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