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Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/41**

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)(i)	A: Stevenson screen B: Sunshine recorder	**2**
1(a)(ii)	Screen is painted white …so that it reflects heat or sunlight / reduces direct heating by the sun / does not absorb sunlight Sides are made of slats / louvres / have spaces / gaps / not solid …so that air can circulate Screen / box is made of wood.... so that heat is not conducted into it Roof is made of a double layer of wood …. so that airspace provides insulation Screen stands more than 1m / raised on legs above the ground … so that instruments are not affected by heat from the ground 3 + 3	**6**
1(b)(i)	Barometer	**1**
1(b)(ii)	Gauge stood firmly / dug in ground Funnel and jar placed in casing / gauge Rain enters gauge / jar through funnel / collects in jar / collects in rain gauge Water poured into measuring cylinder Reading taken every day / at same time reach day / fixed time period Measuring cylinder is emptied after measuring	**4**
1(b)(iii)	Arrow / pointer turns / spins round / pushed by wind Points to N/E/S/W / compass direction (from which wind is blowing)	**2**
1(c)(i)	Complete line graph of AP – 1011, 1013, 1014	**1**
1(c)(ii)	Draw rainfall bar – 4 mm at 16.00 hours on day 2	**1**
1(c)(iii)	Day 3 at 01.00 hours	**1**
1(d)(i)	Hypothesis is **true** – 1 mark reserve As AP falls rainfall increases / as AP rises rainfall decreases Highest rainfall = low AP OR No rainfall / 0 mm of rain = highest AP Credit 1 reserve mark for supporting data to show contrast e.g. 7.5 mm of rain = 997 mb and 0 mm of rain = 1014 mb (need 4 figures) 4.1 mm of rain = 996 mb and 0.1 mm of rain = 1008 mb If no hypothesis conclusion credit evidence	**4**

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Question	Answer	Marks
1(d)(ii)	Evidence comparing AP and wind direction e.g. True Winds mainly from NE (quadrant) when higher AP / winds mainly from NW (quadrant) = lower AP Winds from NE when AP between 995 & 1003 / lower than 1004 or 1005 Winds from NW when AP is between 1005 & 1016 / higher than 1004 1005 False AP = 1002 and wind comes from NNE, NE and NNW AP = 1000 and wind comes from N and NE AP of 1002 and 1008 = wind comes from NNW AP of 1000 / 1006 / 1008 / 1011 = winds from N 1 mark reserve for true & false	**3**
1(e)(i)	7 oktas 3 oktas 2 @ 1	**2**
1(e)(ii)	A: cumulus B: cirrus C: altostratus / stratus 3 @ 1	**3**

Question	Answer	Marks
2(a)	Student safety To divide up the tasks within each group Collect more data / get wider range of results / pool the results of different groups / cover wider area Check that recording / fieldwork is done accurately / results are reliable Compare results Work faster / study all 6 transects at the same time 2 @ 1	**2**
2(b)	Advantages To get even coverage along the transect An easy method to use No bias caused by student selecting land use to record Will show major changes in land use along transect Disadvantages Will require a lot of recording Might miss a typical land use / get an anomaly Land use on upper floor may be different to ground floor One side of the road may be different to the other side 4 @ 1	**4**
2(c)	Entertainment Residential Public building 3 @ 1	**3**

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Question	Answer	Marks
2(d)	Commercial (shops) 7 Entertainment 3 Public building 2 Open space 2 Transport 0 Services (offices) 2 Need both tally marks and number for each category All correct = 2 marks 4 or 5 correct = 1 mark	**2**
2(e)(i)	801–1000 (m)	**1**
2(e)(ii)	80 (%)	**1**
2(e)(iii)	Residential is main land use at 1800–2000 m but no residential at 0–200 m Industrial / open space are at 1800–2000 m but not at 0–200 m Commercial is main land use at 0–200 m but no commercial at 1800–2000 m Entertainment / public building / transport at 0–200 m but not at 1800–2000 m 2 @ 1	**2**
2(e)(iv)	Residential is dominant land use at 6 distances / not dominant at 4 distances Residential is dominant at 800 m outwards / not dominant up to 800 m Credit 1 mark for % residential and distance e.g. No residential / 0% at 0–200 m 65% residential at 1401–1600 m	**3**
2(e)(v)	City has grown outwards/developed over time Access to transport – road / rail / air / river Competition for land / bid rent Cost of land / land is cheaper out of city centre Availability of land / amount of space / more land available away from city centre Flat land / flood plain Residential away from industry / air pollution Planning policy Close to raw material for industry	**4**
2(e)(vi)	Hypothesis is **partly true** – 1 mark reserve True up to 1200 m / 1st six sections Commercial increases / exceptions at 1401–1600 / 1601–1800 Credit paired data to agree with hypothesis e.g. 65% at 0 – 200 and 5% at 1001–1200 m Credit data to show exception e.g. 25% at 1601–1800 m If no hypothesis conclusion and credit evidence	**4**

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Question	Answer	Marks
2(f)	Method such as environmental quality / litter /air pollution /noise pollution / vegetation survey / traffic survey Credit 1 mark maximum for possible method Techniques such as Select different sections / distances along transect Carry out bi-polar survey Use questionnaires Interview people (1) Credit details of techniques up to 3 marks	**4**

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