Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/42**

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.

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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)	Examples Put in Stevenson Screen / open space / outside (1) Read the temperatures every 24 hours / fixed period of time / at same time / every day / each day (1) Read both scales / read / take / record / check / obtain min. and max. temps (1) Read off the bottom of each index (1) Read at eye level (1) Reset (indices) (1) (4 × 1)	**4**
1(a)(ii)	Plot 8^0 max temperature for 13th November. Mark plot; ignore line.	**1**
1(a)(iii)	21 (November)	**1**
1(b)(i)	Barometer	**1**
1(b)(ii)	Examples To get comparable / fair / consistent / reliable reading (1) So results not affected by change in AP during the day / it varies during the day / AP varies at different times (1) Keeps time variable constant / the same (1)	**1**
1(b)(iii)	Hypothesis is **false** - 1 mark reserve No relationship/pattern between AP & temperature (1R) AP stays same but temp change (1) e.g. AP 1010 = max. temp 6 / 8 / 9 °C (need 2 temps) (1RD) e.g. AP 1012 = min. temp 3 / 6 °C (need both temps) (1RD) **OR** Temp. stays same but AP changes (1) e.g. Max temp of 8 °C = AP of 1008 / 996 / 993 / 1010 (1RD) e.g. Min temp of 3 °C = AP of 1007 / 993 / 1006 / 1012 (1RD) No credit for hypothesis is true/ partially true If no hypothesis conclusion credit evidence (1HA + 1R + 1 + 1 RD)	**4**
1(c)(i)	Examples Fasten instrument to post (1) Rain falls into / collected in the funnel or container / cylinder / jar (1) Measure water level in container / bottom of meniscus / at eye level read level on scale / read amount of rainfall (1) Measure in mm (1) Measure every day / every 24 hours / same time / specific time (1) Empty container (1) (3 × 1)	**3**

Question	Answer	Marks
1(c)(ii)	Examples of Factors and Explanations Can give E if F not OK. Do not double credit (F). Do not credit F if on the E line. Can give 2 × F on the same F line e.g. open space (1) and away from trees (1). (F) Clear of buildings / on open ground (1) (E) All rainfall can enter instrument / instrument not sheltered / rain not blocked / nothing stops rain falling in (1) (F) Clear of trees / on grassland (1) (E) To prevent interception / water dripping from leaves / leaves don't block the funnel / to allow collection of all rainfall (1) (F) Clear of people / animals / fenced off (1) . (E) To prevent instrument being emptied / interfered with (1) (F) Position off the ground (1) (E) Easier to read at height (1) (F) Instrument should be accessible (1) (E) So it can be checked and emptied each day (1) **NOT**: (F) Proximity to trees /buildings; bare land/ not in shade / flat land / hard surface / vertical. 2 × (1 + 1)	**4**
1(c)(iii)	Plot 9.5 mm on 13th November. Ignore shading.	**1**
1(c)(iv)	It is a negative relationship / inversely proportional / inverse (1R) As AP rises / high / more = less / low rainfall **OR** As AP falls / low / less = more / high rainfall (1) Credit 1 mark MAX for supporting paired data: e.g. AP = 1009 mb and rainfall = 2.2 mm but AP = 993 and rainfall 12.8 mm (1) (1R + 1 + 1D)	**3**

Question	Answer	Marks
1(d)(i)	Wind speed: Use an anemometer (1) Place on top of building / hold high (1) Cups / discs revolve / spin / rotate / / turn / pushed by wind (1) Read / look at reading displayed on screen / meter below (1) Shows reading as kms or miles per hour or knots (1) Wind direction: Use a wind vane / weather cock / wind sock (1) Wind exerts force on pointer/back of pointer (1) Arrow / pointer points to the direction the wind is coming from – **vane** (1) Sock points to direction wind is blowing to – **sock** (1) Larger surface area catches the wind (1) N, E, S, W / compass points allow direction to be worked out (1) 2 × (1 + 1)	**4**
1(d)(ii)	Plot 4 days from South	**1**
1(d)(iii)	Higher / highest / fastest wind speeds when wind is blowing from SSW (Not South) **OR** Lower / lowest / slowest wind speed when wind is blowing from E/SE (1) **OR** High wind speed from SSW and low wind speed from E/SE (1) 1 mark for comparative stats e.g. wind from SSW = 21 / 16 / 15 km/hr and wind from E/SE = 7 km/hr (1D) av. speed SSW is 16.75 km/hr and from E/SE is 7 km/hr (1D) (1 + 1D)	**2**

Question	Answer	Marks
2(a)(i)	High order = airport Middle order = fire station Low order = bus stop 3 correct = 2 marks, 1 or 2 correct = 1 mark	**2**
2(a)(ii)	A service which is frequently used	**1**
2(b)(i)	General food store	**1**
2(b)(ii)	2	**1**
2(b)(iii)	H, D, G, A 3/4 correct = 2 marks, 1/2 correct = 1 mark	**2**
2(c)(i)	Examples Obtained from another source / internet / book / on-line / published / somewhere else (1) Not collected by students / collected by others / not first-hand / second-hand / someone else / already available / previous data (1) Refined / collated / organised data (1) (1 + 1)	**2**
2(c)(ii)	Plot G on scatter graph at 1312 pop and number 5. No need for letter G.	**1**
2(c)(iii)	Hypothesis is **true** / **correct** – 1 mark reserve (✓HA) Larger population = higher number / more services (1) Credit 1 mark MAX for paired data – population and number of services of any two settlements that match hypothesis. e.g. 12 226 pop / 11 services but 201 pop / 1 service (1) No credit for hypothesis is false / partially true If no hypothesis conclusion credit evidence (1HA + 1 + 1D)	**3**
2(d)(i)	Settlement D: Reduced services in 2018 or now from 9 to 7 / down by 2 / no bank / clothes shop in 2018 (1). Accept reverse e.g. in 1990 / then it had a bank. Settlement H: Increased services in 2018 or now from 3 to 9 services / up by 6 / new bank / clothes shop / food store / hairdresser / garage / supermarket in 2018 (1) Accept reverse e.g. in 1990 / then it had no bank (1 + 1)	**2**

Question	Answer	Marks
2(d)(ii)	Examples Increase / decrease pop. size; moved / migrated in / out OR to / from (1) More / less demand or need for services (1) Service becomes more / less profitable (1) Threshold population for services is exceeded / not met / more / less customers (1) Wealth /income increases / decreases (1) Transport such as cars / bus services change (1) Tourist visits increase / decrease (1) More on-line shopping / less shop visits (1) (1 + 1 + 1)	**3**
2(e)(i)	Examples Contains introduction / explanation of who is asking questions (1) Aimed at target group (1) Simple language / easy to read / follow / understand / answer / in native language / short / quick to carry out / to the point (1) Explains why they are using the questionnaire (1) Space to record gender / age information (1) Space to add time / date (1) Contains space to write answers / tick boxes / circle answers (1) Questions are relevant to hypothesis (1) Contains mixture of closed & open questions / multiple choice / easy Q at start and longer/harder at end / have YES/NO questions(1) No personal / offensive questions / don't ask age / address / income / make it anonymous (1) Include thanks at the end of questionnaire (1) (1 + 1 + 1)	**3**
2(e)(ii)	Plot data for number of people travelling more than 20 km (21–25). Plot one cross for each person travelling i.e. **2 @ 21, 1 @ 22, 3 @ 23, no cross at 0, 1 @ 25.** top left. Must all be correct and present for the mark in the same method as shown in the diagrams.	**1**

Question	Answer	Marks
2(e)(iii)	Hypothesis is **true** / **correct** – 1 mark reserve (✓HA) People travel further to clothes shop (1) People travel less distance to lower order services / doctor's surgery / hairdressers (1) **OR** People travel further to the clothes shop (1) than the hairdressers / doctor's surgery (1) Credit 2 marks MAX for paired data comparing high/low order services e.g. average distance travelled to clothes shop (High) = 16 km and but to hairdressers (Low) is 3.9 km (1) e.g. people travel up to 25 / over 20 km to clothes shop / high order service but up to 8 / 11 km for hairdressers / doctor's surgery / low order services (1) e.g. the minimum distance travelled to clothes shop / high order service is 9 km but the minimum distance to low order / hairdressers / doctor's surgery is 0.5 km (1) No credit for hypothesis is false / partially true If no hypothesis conclusion credit evidence (1HA + 1 + 1 + 1D) OR (1HA + 1 + 2D)	**4**
2(f)	Examples: Emphasis is on FIELDWORK Go to the village/visit the area (1) **NOT** find out / observe / look at / consider Use an outline map / draw own map of the village / add current land use to 1990 map (1) Plot new houses / shops / new buildings / roads onto 1990 / outline map (1) Label / classify / colour-code different types of land use or old and new buildings (1) Take photos of new developments (1) Use a tally chart to count the number of buildings / shops etc. (1) Ask locals/questionnaires / interviews about land use changes (1) Compare land use or e.g. buildings / shops in 2018 with 1990 (1) (4 × 1)	**4**