CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2

0460 GEOGRAPHY

0460/41 Paper 4 (Alternative to Coursework), maximum raw mark 60

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 will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

1 (a) (i) Must be comparative
Homemade rain / Fig. 1 gauge is:
Simpler
Not as accurate to use
Plastic rather than metal / glass
Re-cycled material / old bottle compared to proper equip
Cheaper
Wider / shorter
Separate ruler not measuring cylinder
Cut off top from bottle compared to proper funnel
Transparent not opaque measuring bottle 2 @ 1 [2]

(ii) Put the rain gauge in soil / in a field / away from buildings / away from trees / on grass / not on concrete
Leave for 24 hours (max) / wait a certain or set time / check level at the same time each day
Use **ruler** to measure water level / measure amount of rain
Empty container and replace [3]

(b) (i) Bigger sample of results / more results / more reliable
Avoid student error / anomaly
Can calculate average [2]

(ii) 96/6 OR 14 + 16 + 16 + 17 + 15 + 13 / 6
= 16 [2]

(iii) Days 8, 4, 14 All correct for 1 mark [1]

(iv) Figures plotted on Fig. 4
Circle at 14 mm on day 13; square at 2.8 mm on day 4 – need correct symbol
2 @ 1 [2]

(v) Yes / hypothesis is **correct** / less rainfall reaches ground as density of vegetation cover increases – 1 mark reserve

Least rainfall **reaches ground** OR lower reading in coniferous **woodland** / densest vegetation cover / wood with vegetation cover all year / higher readings in deciduous than coniferous woodland
More rainfall **reaches ground** OR higher reading on **bare ground** / no vegetation cover / less rain reaches ground in deciduous woodland than bare ground

1 mark **max** for paired data comparing two vegetation types e.g. on day 14–2.9 mm in coniferous woodland and 17.8 mm on bare ground average for 14 days: 1.6 mm in coniferous woodland, 9.9 mm in deciduous woodland, 11.6 / 11.7 mm on bare ground (any 2 figures for 1 mark)
lowest in coniferous woodland = 1.6 mm and lowest in bare ground = 12.8 mm

Hypothesis conclusion is incorrect / partly correct no credit [4]

(vi) **Amount**: Where there is most vegetation cover / conif water is intercepted / stops rain / water reaching grou there is no vegetation cover / on exposed bare ground th
Spacing: Widely spaced vegetation lets more rain throu rain getting through
Seasonality: Deciduous trees / some trees loose leaves don't

(c) (i) Primary data: using a barometer & measuring the speed
Secondary data: getting information from a newspaper report and researching on the internet
All 4 correct = 2 marks
2 or 3 correct = 1 mark [2]

(ii) Deciduous woodland [1]

(iii) Hypothesis is **correct** for deciduous woodland
1 mark reserve
13.9 mm in winter compared with 7.1 mm in summer / 6.8 mm more in winter

Hypothesis conclusion is incorrect no credit

Hypothesis is **not correct** for coniferous woodland
1 mark reserve
2.3 mm in both summer and winter

Hypothesis conclusion is true / correct no credit [4]

(iv) Deciduous trees have more leaves in summer / lose leaves in winter
Coniferous woodland stays the same all year round / fall off throughout the year **and** are replaced / don't lose leaves in winter

Don't need link to interception [2]

(d) Ideas such as:
Measure / record maximum and minimum temperature / read the temperatures (must be plural)
Method of measuring by using thermometer – index, magnet to reset – to 2 marks max
When readings are made – daily / weekly / monthly NOT hourly
Take reading at same time each day / fixed period of time
Calculate difference between max and min temperatures [3]

[Total: 30]

2 (a) (i) Comparison may be implied from point of view of Questio
Gives a scale of agreement / quantitative answer
Includes gender
Asks for age group information / age group rather than age
Includes the purpose of the questionnaire / includes wher
Tick boxes / options to choose from
Fewer questions / all questions are relevant

If answer from point of view of questionnaire 1 there mus

3 @ 1 [3]

(ii) Stratified / systematic / random – 1 mark reserve
Stratified / Quota sampling –
Get an appropriate gender balance;
Get an appropriate age balance;
Break population down into groups

Systematic sampling –
Ask people at regular intervals / pattern
Ask every tenth person

Random / Opportunity sampling –
Ask the next person they meet / ask any person
Random number tables to generate order to ask people [3]

(iii) **Why**: People would be better equipped to answer Q 3 / talk about what they had done / have views about the day's activities
Waited until people have finished the day's activities / will not disturb people whilst doing activities
(1 mark maximum) [2]

Disadvantage: People are tired at end of a busy day / cannot be bothered to answer questions
People in a rush to set off for home
May not get enough answers and too late to do anything about it
Only visitors travelling by car will be surveyed / ignores visitors coming by train or bus or walking
(1 mark maximum) [2]

(b) (i) Pie graph – completion 1 mark (61–80 = 26%; more than 80 = 31%)
1 mark for dividing line; 1 mark for shading [2]

(ii) Many / more / most visitors came from far away / least visitors come from nearby
More visitors as distance increases
Largest number / travelled more than 80 km
Most visitors travelled less than 80 km
Smallest number travelled less than 20 km
Over half of the visitors travelled more than 60 km [2]

(iii) Insert figures
Visiting friends: 2 in 20–35 age group and 1 in over 65 ag
(both for 1 mark)
27 in total of 35–50 column

(iv) Conclusion that hypothesis is **correct** / **partially correct**

Active / energetic activities (or description) such as / c
riding / running / jogging are more popular with younger p

Passive / relaxing activities (or description) such as / sightseeing / driving / visiting historic buildings / bird watching are more popular with older people (over 50)

Walking is popular with most age groups / visiting historic buildings or friends has fairly even split of young and old, so doesn't support hypothesis

No credit for stats without interpretation

Hypothesis conclusion in incorrect = no credit [4]

(c) (i) **Only** wanted local people / residents / **not** tourists
Not waste time doing the interview / if they don't live in the village they will not know impact [1]

(ii) Completion of divided bar – dividing lines at 32 and 42 = 1 mark each
(if 32 is incorrect, add 10 to line for second line placement)
Shading = 1 mark – must be in correct order [3]

(iii) Many jobs will be seasonal
Money spent in the area will drop for 6 months
Congestion / overcrowding **between April and September** / in these months / in summer
Traffic congestion / noise / litter in summer / in these months [1]

(iv) Brings money into the area [1]

(v) **No** Hypothesis mark. Allow any hypothesis choice but credit supporting evidence and data.

e.g. Support hypothesis / hypothesis is correct

Most / many people see problems as very severe / quite severe OR very important / quite important
Most / many people see benefits are slightly important / not important

Credit data which illustrates problems or benefits for 1 mark reserve –
data must be related to total or is comparative or proportionate e.g. 30 out of 50 people thought that litter was a very severe problem. [3]

(d) Do a traffic survey / count vehicles
Do it in different streets / areas of village
Do survey in different seasons
Do it at different times of day
Tally method of counting,
Do for 10 minute period

Compile a questionnaire / interview
Ask drivers / visitors / pedestrians what are the traffic problem
Ask questions such as: where is congestion worst – 1 max
Think about sampling technique

Observe traffic jam and time how long it takes to get through village [3]

[Total: 30]