MARK SCHEME for the October/November 2013 series

0460 GEOGRAPHY

0460/43 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) 

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laundry</td>
<td>Convenience shop</td>
</tr>
<tr>
<td>Not being used</td>
<td>Comparison shop</td>
</tr>
<tr>
<td>Furniture store</td>
<td>Other service</td>
</tr>
<tr>
<td>Chemist/drug store</td>
<td>Unoccupied shop</td>
</tr>
</tbody>
</table>

All 3 correct = 2 marks, 1 or 2 correct = 1 mark [2]

(ii) Shop owners losing money/bankrupt/went out of business
Competition from other shopping centres/too many shops selling same goods
High rents
Decrease in number of customers/not enough customers/lack of demand
New shopping centre/still looking for new business
Undergoing renovation 2 @ 1 [2]

(iii) People travel further to buy comparison goods than convenience (low order) goods
Comparison goods usually cost more than convenience goods
If more than 2 answers deduct 1 mark for each incorrect answer 2 @ 1 [2]

(b) (i) Work in pairs, not alone
Don't block pavement/entrance to shops
Be polite to interviewees
Accept that people won't want to answer questions/too busy/in a hurry
Ask a range of people/get a representative sample of age or gender/distribute at random
Choose a time when there are plenty of people shopping
Ask people leaving different shops 2 @ 1 [2]

(ii) Hypothesis is true/partially true people buy different types of goods – 1 mark reserve
CBD contains more comparison shops/local shopping centre contains more convenience shops. Allow 'only' with figures
People go to CBD for comparison goods/to local shopping centre for convenience goods
OR individual purchases. Allow 'only' with figures
People buy some goods in both centres e.g. food/convenience goods
Credit use of paired data which compares the types of shops (Table 1) or goods purchased (Table 2) to 2 marks max
e.g. convenience goods – 15 bought in CBD, 27 bought in local shops
47 comparison shops in CBD & 3 in local shopping centre
Hypothesis conclusion is incorrect/false no credit [4]

(c) (i) Completion of histogram – less than 10 minutes (21 – Larco Ave and 25 – Enrique Palacios).
Ignore shading 2 @ 1 [2]
(ii) Completion of pie chart – between 2 and 6 days = 50%, between 1 and 4 weeks = 22%
1 mark for correct position of line, 1 mark for shading
No mark for line if plotted wrong way round, but credit shading if correct [2]

(iii) Overall hypothesis is **not true/partially true** – 1 mark reserve
‘Longer’ hypothesis is partially true/not true
‘Frequency’ hypothesis is not true
If answer as two separate sections consider each hypothesis separately and credit 1 max for hypothesis. If both hypothesis conclusions agree with mark scheme go to 4 marks max. If one conclusion agrees with mark scheme but the other conclusion does not agree with mark scheme go to 2 marks max.

Most people do not take longer to get to Larco Ave/CBD/little difference

People go more frequently to Enrique Palacios/local shopping centre/
people go less frequently to CBD

Credit use of paired % data which compares the two centres to 1 mark maximum

Hypothesis conclusion is true/correct no credit [4]

(d) (i) More/larger percentage walked to Enrique Palacios/local shopping Centre OR two correct statistics (28 and 8)
More/larger percentage went by car to Larco Avenue/CBD OR two correct statistics (22 and 36)

More go by car than walk to CBD OR two stats (36 and 8)
More walk than go by car to local shops (28 and 22) [2]

(ii) Would not change the conclusion/conclusion would still be valid/hypothesis would still be false
Helps to provide an explanation e.g. such as quicker to travel by car than walk/takes longer to walk than go by car/method of transport will affect time taken [2]

(iii) Distance to travel/how long it will take to travel to shopping centre
Likely duration of visit/how long shoppers stay
What/how much they are buying/what they are buying/type of shop they visit
Availability of regular bus service/public transport/taxi
Availability/cost of car parking
Weather conditions/weather forecast/more likely to travel by car if raining
Level of car ownership/do shoppers own a car/car shoppers afford car/car sharing/can shopper afford petrol or bus fare
Traffic congestion/amount of traffic
How much time they have
Risk of crime/safer to drive/no pavements to walk on 3 @ 1 [3]

(e) Choropleth map/pictogram
Divide city/draw map to show different districts/show where groups of people live
Devise categories for choropleth shading/symbols
Shade different districts according to key
Include a key of categories [3]

[Total: 30]
2  (a)  Keep away from base of cliff/overhang  
   Don’t stand on edge of cliff 
   Check tide times before setting off/watch for incoming tide/do fieldwork at low tide 
   Avoid slippery rocks/sharp rocks 
   Measure waves from safe position/don’t go into sea 
   Take mobile/cell phone/whistle 
   Work in groups/pairs/not alone 
   Tell teacher/adult where you are going 
   Suitable clothes/protective clothes/footwear/sunblock  
   3 @ 1  [3]

   (b)  (i)  Place marker poles along rope/transect line 
   Put poles at each break of slope 
   Ensure they are vertical 
   Same length of pole above surface at each point 
   Use a clinometer to measure angle/read angle 
   Hold clinometer next to top/at agreed height on marker pole/eye level 
   Sight other marker pole at top/agreed height 
   Repeat along transect/different places up beach 
   Measure distance between marker poles  
   4

   (ii) Cala Bassa (sandy) is wider or longer or larger/Cala Blanca (pebbles) is narrower or shorter or smaller 
   Cala Bassa is 35 m and Cala Blanca is 17 m  
   1

   (iii)  Hypothesis is true/pebble beach (Cala Blanca) has steeper profile 
   1 mark reserve 
   Cala Blanca is narrower beach than Cala Bassa but both go to same height (elevation)/Blanca goes to greater height (elevation) 
   Cala Blanca increases 5–5.5 m in 16.9–17 m and Cala Bassa increases 5 m in 34.5–35 m 
   1 mark for paired gradient measurements (Blanca 1 in 3, Bassa 1 in 7) 
   1 mark for paired angle measurements, these could be at individual points or average for the beach 
   Hypothesis conclusion is false no credit  
   4

   (c)  (i)  Put quadrat on ground/beach/throw quadrat 
   Count the number of squares with different types of beach material 
   Do more than one measurement and calculate average 
   Do task in each section of beach profile  
   3

   (ii) Classification as sand, shingle, pebbles or cobble is subjective/may be classified differently at different sites 
   Some types of material look similar 
   Estimating the percentages may lead to inaccuracy/inconsistency 
   Measuring individual beach material would take a lot of time 
   May be boulder/bare rock/seaweed/driftwood/litter in quadrat  
   1
(iii) Completion of divided bar graph: shingle – 48, pebble – 40, cobble – 12
2 marks for dividing lines
1 mark for shading – must be in correct order [3]

(iv) Hypothesis is true for Cala Blanca beach/larger beach material away from sea – 1 mark reserve
1 mark for data which refers to pebbles or cobbles or compares two profiles – need two percentages and locations
e.g. cobble increases from A – B 0% to H – I 20% OR across whole beach
Hypothesis conclusion is false/partially true no credit
Hypothesis is not true for Cala Bassa beach – 1 mark reserve
1 mark for data which refers to sand or shingle or compares two profiles – need percentages and locations
e.g. over 80% sand in all sections
only sand/100% sand in A–B and E–F
Hypothesis conclusion is true/partially true no credit 2 + 2 [4]

(v) Powerful swash throws all material up the beach/material thrown up beach during storms
Less powerful backwash can only carry the smaller material down the beach
Material from cliff at back of beach is larger [2]

(d) (i) Possible hypothesis:
Lighter beach material is moved more quickly by longshore drift
Groynes on the beach interrupt the movement of longshore drift
Rate of longshore drift is affected by wave height/wave frequency
More longshore drift on a sandy beach/Cala Bassa than a pebble beach/Cala Blanca or vice versa
Where more longshore drift takes place there is smaller material
Longshore drift occurs in direction of prevailing wind
Must include ‘longshore drift’
Can be evidence that longshore drift has taken place [1]

(ii) Description must link to chosen hypothesis. If chosen hypothesis is not credited in (b)(i) go to 2 marks max if linked to longshore drift.
Possible method first hypothesis:
Paint 50 pebbles of varying sizes
Group them in the wave swash/backwash zone
Leave them for period of time
Find the pebbles and measure distance from starting point
Measure long axis of pebble
Credit other ways to measure longshore drift, if appropriate. [4]

[Total: 30]