**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

International General Certificate of Secondary Education

# MARK SCHEME for the October/November 2013 series

# 0460 GEOGRAPHY

**0460/43**     Paper 4 (Alternative to Coursework), maximum raw mark 60
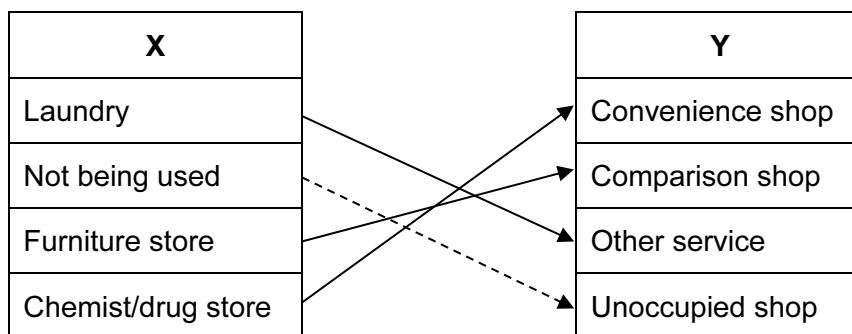
This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, 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.
.

CAMBRIDGE

1   (a) (i)

| X | | Y |
|---|---|---|
| Laundry | | Convenience shop |
| Not being used | | Comparison shop |
| Furniture store | | Other service |
| Chemist/drug store | | Unoccupied shop |

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
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

**(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/can 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

(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]