UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper

for the guidance of teachers

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 must be read in conjunction with the question papers and the report on the examination.

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1 (a) Labelled arrows on sketch – 1 mark per correct label

(b) (i) C

(ii) Sampling points are regularly spaced out / constant across transect
Estimate / measure width of transect and estimate / calculate equal divisions / every 10 metres (or appropriate measurement) [2]

(iii) Tape measure: lay it out along transect line
Mark out distance between ranging poles

Ranging poles: students hold poles at either end of measured distance
Ensure they are vertical
Must rest on surface, not dug into surface

Clinometer: student holds clinometer next to top / at agreed height on ranging pole
Sight other ranging pole at top / agreed height
Allow clinometer to adjust to angle
Read angle off clinometer

Reserve 1 mark for each piece of equipment [6]

(c) (i) Labelling transect: embryo dune, slack, main ridge dune
3 correct = 2 marks, 1 or 2 correct = 1 mark [2]

(ii) Generally hypothesis is true / not perfect match / not entirely true / student and textbook profiles match – ✓Ha   1 mark
No Ha mark for NOT true but credit differences

Similarities: Can identify the four dune features on student profile
The student profile features are in the same order as the textbook
In textbook slacks are similar depths, same in student profile

Differences: In textbook main ridge has two peaks, only one in student profile
In textbook there is an old dune ridge, none in student profile
Longer distance between fore dune and slack / slack nearer to main dune than fore dune in student profile
Flat land between fore dune and main dune / between 60–100 m in student profile but not in textbook

2 marks maximum for similarities or differences [4]

(d) (i) Put quadrat on ground
Estimate percentage of quadrat / count number of squares which includ
vegetation cover
Do task at each sampling point   [

 (ii) Completion of bar graph – points 15 at 25% and 16 at 90%
Shading not needed
2 @ 1 mark   [2]

 (iii) Hypothesis is true / partly true / human activity does affect the amount of
vegetation cover – ✓Ha   1 mark
Where there is evidence of more intensive human activity, e.g. path, cycle path,
picnic site, there is less vegetation cover
Where there has been a fire there is no vegetation cover
Credit data as appropriate e.g. footpath / walking there is 50% vegetation cover,
cycling = 10% vegetation cover, no human activity = more than 80% vegetation
cover – to 3 marks maximum   [4]

(e) Look for / identify / find out about / observe evidence (or e.g. of evidence such as notice
board, direction sign, boardwalk, ropeway fenced off area, replanting of marram grass,
barrier to prevent vehicle access, consolidation barrier to prevent dune movement)
Record / make notes of evidence or examples
Map evidence or examples
Draw field sketch of evidence or examples
Take photographs / video of evidence or examples
Count evidence or examples
Look at pamphlets / leaflets / information maps / internet to find evidence or examples
Survey / ask people in charge / park rangers about management   [4]

[Total: 30]

2 (a) Primary data: collected by students through fieldwork
        Secondary data: acquired from other sources / books / internet

    (b) (i) Fieldwork: mark use of / label each building on base map
             Decide whether to do ground floor only or include upper floors
             Alternative is to take transects along several routes

             In school: decide land use categories
             Classify buildings into categories / colour code
             Shade map and key / plot land uses on map
             1 mark reserve for each section.   [4]

        (ii) Recording sheet to include:
              Street name / location / sample point / site
              Time of survey
              Tally of pedestrians / space to do tally
              Total number / result of tally   [3]

        (iii) Number of pedestrians varies during the day / different number of pedestrians at
              different times of day
              Factors such as shop opening hours / people going to and from work / lunch time
              breaks   [1]

        (iv) Students went to identify survey points / different places
              All conducted count at same time
              All conducted survey for 5 minutes
              Use of watches / stopwatch / mobile phone to ensure comparability
              Two (or other number) students in each group   [2]

    (c) (i) Completion of isoline on Fig. 7
             Must go outside 21, through 20 and outside 28   [1]

        (ii) Shading on Fig. 7   [1]

        (iii) Bus lanes
              One way streets
              Parking restrictions / yellow lines / tow-away zones / no parking
              Cycleways
              No heavy vehicle access
              Access for delivery vehicle / authorised vehicle / taxi / buses only (rising bollards
              idea)
              Tidal flow scheme
              Number plate permits
              3 @ 1   [3]

        (iv) Very time consuming activity / too many buildings in CBD
              Difficult to estimate building heights (or number of storeys) / cannot measure
              heights
              Secondary data will be more accurate than estimate
              Data is already available / easier to get / not necessary to map data   [2]

(d) (i) Shops
Offices
Entertainment
Public buildings / town hall
Cafes / restaurants
Historic buildings / castle / cathedral
Hotels
Bus / train station
Banks
Multi-storey car parks
3 @ 1 [3]

(ii) Hypothesis 1 is true / different techniques do produce different results –
✓Ha 1 mark NOT partly true
Compare any two land use areas for 2nd mark e.g. land use produces bigger CBD
area than pedestrian flow [2]

(iii) Shading on Fig. 8 [1]

(iv) Hypothesis 2 is incorrect / building height is not an accurate criteria
✓Ha 1 mark DO NOT accept true (0 marks)
Covers an area which is larger than core CBD
Pedestrian flow measurement is more accurate
Could argue that it is just one measurement and is an accurate as any other / are
other measurements to consider
Need a combination of measurements to map a core area [2]

(e) Redevelopment of old buildings / regeneration
Demolition of old buildings
Clearance of unofficial / illegal buildings
Construction of new shopping centre
Construction of new office blocks
Development of new bus station / train station / metro / tram system
CBD will expand / shrink / change shape / change location / doughnut
Building height will increase / more high rise buildings
No vehicle / pedestrian zone will be enlarged / any change in traffic restriction
Change in land use of building or example / business moves out
3 @ 1 [3]

[Total: 30]