

**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**

<b>0460 GEOGRAPHY</b>	
<b>0460/43</b>	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.

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Page 2	Mark Scheme: Teachers' version	Syllabus	
	IGCSE – October/November 2010	0460	

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]

Page 3	Mark Scheme: Teachers' version	Syllabus	
	IGCSE – October/November 2010	0460	

- (d) (i) Put quadrat on ground  
Estimate percentage of quadrat / count number of squares which include 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]

Page 4	Mark Scheme: Teachers' version	Syllabus	
	IGCSE – October/November 2010	0460	

- 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]

Page 5	Mark Scheme: Teachers' version	Syllabus	
	IGCSE – October/November 2010	0460	

- (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 as 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]