

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

Cambridge International General Certificate of Secondary Education

**MARK SCHEME for the October/November 2015 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.

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1 (a) (i) C [1]

(ii) Clinometer, ranging poles  
If more than two answers – 1 for each incorrect answer 2 @ 1 [2]

(iii) Lay tape measure out along transect line  
Put poles at break of slope / at equal or set distances apart / 5 m or more apart  
Measure / mark distance between ranging poles  
Poles must be vertical  
Sight other ranging pole at top / agreed height / line up  
Read / measure / record angle – need reference to **clinometer**  
Move poles across/ along profile / transect / to next site / repeat measurement **along** transect [4]

(iv)

Description	Type of dune
Oldest dunes which are furthest inland	Grey (dune)
Most recently created dunes	Embryo (dune)
Tallest dunes	Yellow (dune)

[1]

(v) Obstacle / plant on / behind the beach  
Wind picks up sand / blows sand / carries sand / moves sand  
Friction with obstacle/plant slows down wind  
Sand is deposited around obstacle / traps sand  
This increases size of obstacle so deposition continues and dune grows  
Plant roots hold dune together [3]

(b) (i) Put quadrat / grid on ground / alongside tape / put quadrat down  
Estimate percentage of quadrat / count number of squares which include vegetation cover  
Do more than one measurement **and** calculate the average  
Record results / write down measurements [3]

(ii) Plot 60% cover at 190 m, 75% cover at 210 m 2 @ 1 [2]

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- (iii) Hypothesis is **correct** / true / generally / mostly / partially correct – 1 mark reserve  
 e.g. Percentage of cover increases from 20% at 10 m / site 1 to 95% at 290 m / site 15 – **need 2 percentages and 2 distances or site numbers**  
 Exception / anomaly to the pattern at: 30 and 50, 110 and 130, 150 and 170, 210 and 230, 290 and 310 m (or sites)  
 e.g. percentage of cover is 30% at 30 m / site 2 and 25% at 50 m / site 3 – **need 2 percentages and 2 distances or site numbers**  
 OR: % is **higher** at 30 m or site 2 than at 50 m or site 3 / **lower** at 50 m or site 3 than at 30 m or site 2  
 Need 1 supporting set of statistics and 1 anomaly set of statistics [3]
- (c) (i) Photograph / take sample / sketch / written description of vegetation  
 Look up in book / internet / vegetation chart  
 Ask ranger / teacher / expert 2 @ 1 [2]
- (ii) May be other different types of vegetation / will not see variety or diversity  
 Main type of vegetation may only just be over 50% [1]
- (iii) Credit any two changes from Table 1. Need 2 vegetation types and distance or description of position  
 Accept distance or site number.  
 e.g. Sea couch grass at 10 m / site 1 and lyme grass at 30 m / site 2  
 e.g. Sea couch grass and lyme grass occupy area closest to sea and marram grass occupies large area behind it  
 e.g. 1. Sea couch grass 0–30 m away  
 2 Gorse / heather 270 m away from sea = 1 mark
- No Hypothesis mark 2 @ 1 [2]

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(d) (i) Tourists walking / trampling / cycling / having a picnic / dropping litter / starting a fire / pulling up plants / driving on dunes  
Kill / damage / destroy vegetation / vegetation dies / vegetation cover decreases / ruins vegetation [2]

(ii) Notice boards / visitor centre / signs / notices / leaflets to educate / inform / tell tourists  
Marked / signed footpaths / build or make a footpath  
Boardwalk across area  
Fence off / rope off areas / restricted access  
Barriers to prevent vehicle / cycle access / create car park  
Rangers to monitor / advise tourists  
Charge admission to dunes  
Designate picnic sites / ban barbecues or picnics  
Litter bins [4]

**Total 30 marks**

2 (a) (i) Central Business District [1]

(ii) Factory [1]

(b) (i) Ideas such as:  
Choose a variety of people / choose people of different age or gender  
Don't just ask people you know  
Introduce yourself / explain purpose of survey  
Have a system for choosing people such as every 10th person / random / have a sampling method  
Accept if people don't want to answer or fill it in / don't argue / be polite / thank them  
Don't approach people in a big group / work in pairs / don't work alone  
Don't block pavement / doorway  
Go to different parts (of the CBD) / don't all go to the same area [3]

(ii) 15–30 (or reasonable alternative between 30–40)  
31 (or reasonable alternative) – 60  
Accept reasonable ranges if not overlapping 2 @ 1 [2]

(iii) Divided bar graph completion  
1 mark for dividing lines at 71 and 91  
1 mark for shading [2]

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(iv)

Opinion	Number of answers	Weighting	Score
Agree strongly	31	+2	+62
Agree	40	+1	+40
Disagree	20	-1	-20
Disagree strongly	9	-2	-18
Total score			+64

1 mark for 4 correct scores

1 mark for correct total = 64

Must have the + and – symbols

[2]

(v) Answer from **b(iv)** plotted accurately (ecf)

[1]

(vi) Hypothesis is **correct** / true / mostly true – 1 mark reserve (✓HA)

Table 2 / Fig. 7

Over half agreed with 3 of the 4 statements

Majority agreed that shop has brought more goods and services / attracts people to town more often / has provided more jobs

Less than half agreed / more than half or most disagreed that shop has increased competition

Credit data if added together or paired for 1 mark max

e.g. 64 agree that the store has brought more services (accept statement 1)

e.g. 31 strongly agree and 40 agree / 71 agree that shop attracts people to the town centre (accept statement 2)

Fig. 8

All statements have positive scores

People are most positive about jobs created

People are least positive about competition to other shops

Credit data for 1 mark max

e.g. score / index for brought goods and services = 63 /

shops attract people = 64 / provides jobs = 140 (accept reference to statements 1, 2, 3, 4)

average score for all 4 statements is 68.75

[4]

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**(c) (i) Scores may vary between students:**

Carry out pilot study  
 Work in groups **and** discuss / agree / check score  
 Calculate the **average** score from a group of students

NOT: compare score with other groups

**Score may vary at different times:**

Make sure surveys are done at same time / agree a time for survey [2]

(ii) Bar drawn to 22 [1]

**(iii) Disagree** with conclusion / students' decision / hypothesis is **false** – 1 mark

reserve (✓HA)

New town has a **positive** impact (on the environment)

Higher EQ results or score / positive descriptions / scores over 21 **are**  
 nearest to new shop / sites C or D

Lower EQ results or score / negative descriptions / scores below 21  
**are** furthest from new shop / sites B or E

Credit contrasting paired data of **total** scores for 1 mark maximum  
 e.g. C scores 27 and E scores 17, D scores 30 and B scores 14,

Points C/D are nearer the new shop and have higher scores than points B/E which are  
 further away = 2 marks

If no decision credit evidence [4]

**(d) (i) Recording sheet should include:**

Street name / location / sample point / site / survey point

Number of pedestrians / tally label / example of tallying method (NOT blank space)

Total number

Time / day / date [3]

**(ii) 2 or 3 students / group go to each survey point**

All start the count at the same time / synchronise watches

All count for the same length of time / finish at the same time / 30 mins

Do more than one count in a day / do it on several days or on two different days / do one  
 count in the morning and one in the afternoon

Note down / record / count people passing the point / one person counts and one person  
 writes down

Fill in the recording sheet / fill in the tally / use a clicker [4]

**[Total 30 marks]**