

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
International General Certificate of Secondary Education

**MARK SCHEME for the May/June 2008 question paper**

<p><b>0460 GEOGRAPHY</b></p> <p><b>0460/04</b>      Paper 4 (Alternative to Coursework), maximum raw mark 60</p>
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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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

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- 1 (a) (i) Wind would change temperature; easy to see effects/influence of building/ground surface; varies due to windy/storm conditions; shelter influence – no credit for ref. to time of year/month. Credit influence of rain/damp if refers to influencing Relative Humidity; not just lists of different weather events. 2 @ 1 mark
- (ii) November so heating on in buildings; heat passes through building/windows/walls/roof to increase air temperature outside; buildings retain heat during the day and reradiate at night; walls facing S/SW are heated by sun in November; sites further away will be less affected; buildings bring shelter/block sunlight. 2 @ 1 mark [2]
- (b) (i) Away from buildings – so no influence; no trees close by to shade; on grass not concrete – so not alter temperature/absorbs heat. Marks are for two reasons only; not locations. 2 @ 1 mark [2]
- (ii) Max. temperature 12-13°C inclusive; min. temperature 1/2°C inclusive; present temperature 3/3.2°C inclusive. Boxes completed with correct temperature ranges. 3 @ 1 mark [3]
- (c) (i) Disadvantage e.g. unsure if same location; different heights of waist; student error in timing, 30 seconds may not be enough for true reading; 3 days may not be long enough for reliable figure; effect of body heat on reading etc. 1 @ 1 mark [1]
- (ii) Temperature will change during the day; different temperatures to check; reference to an average/range for the day. 'more accurate' = 0 1 @ 1 mark [1]
- (d) Day 1 cold morning but warm afternoon but day 2 colder and day 3 similar to day 2; mornings always colder than afternoons. Allow increase/decrease (+ goes up/down); can refer to figures – no need for C. Must refer to another day to get third mark. Data not essential – if given 1 max. Can credit similarity (not a change) if use evidence e.g. Day 2 am and day 3 am same. 3 x 1 descriptive points covering 2 days. Data 1 max. One day only 2 max. [3]

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- (e) (i) F: 5.2 at 17m, G: 5.4 at 9m, H: 5.8 at 2m. 3 @ 1 mark  
No marks if letters missing but allow if 2/3 letters given.
- (ii) Line of best fit within tolerance – RHS 4.6/5.3 to LHS 5.4/6.1 1 @ 1 mark [1]  
Straight or curved;  
0 for joining plots.
- (iii) E.g. the sites closest to the buildings have warmer average 1 for trend [3]  
temperatures OR The furthest site has the lowest temperature – 1 for data  
no credit for opposites. 1 other.  
Credit data e.g. with distance (metres) temperature (C) is reduced  
idea.  
No need to refer to the map, if do credit to 1 max.
- (f) Sites with plants =  $A + B + F = 75 + 77 + 73 = 225/3 = 75\%$ . IGNORE 1 for totals. [2]  
WORKING. 1 for correct  
Sites without plants =  $C + D + E + G + H = 76 + 75 + 73 + 75 + 7$  decision based  
 $= 376/5 = 75.2\%$  but accept 75.25%. on figures.  
Credit “No” or negative statement. Credit “Yes”/positive statement if  
correct judgement using wrong figures.
- (g) (i) Hypothesis 1 – Yes/to some extent (1); Reason e.g. site B/E has 2 @ (1 + 1) [4]  
higher temperature than A/D but can give reasons for why marks  
temperature higher – windier further away/heated from inside.  
Hypothesis 2 – To some extent/No (1); Reason e.g. little  
difference/almost same between vegetated/non vegetated sites.
- (ii) E.g. only three days; 3 @ 1 mark [3]  
only twice each day; credit  
should be at other times of the year; development  
student error in measuring; 1 max. for + ve.  
measure at waist height.  
Credit practical ideas to improve investigation.  
Expect three negative, allow one positive.

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- 2 (a) (i) E.g. data collected by oneself/ourselves/the students completing the investigation;  
not collected by others/first-hand.  
No mark for an example. 1 mark
- (ii) E.g. questionnaire/traffic or pedestrian count/interview/; bi-polar surveys; sketches; their own photographs.  
Need TWO examples. 1 mark for two examples [1]
- (b) (i) Most visitors come by car;  
no visitors come by bicycle;  
train and bus is the least favourite method given;  
data range cars 69/73%, bus/coach 19/23, train bus 6/10%. First %age counts.  
E.g. Tourists have flexibility to move around as they wish;  
mountains make it inaccessible for other transport;  
luggage;  
no parking problems. 3 @ 1 mark [3]  
1 mark for description.  
1 mark for reason.  
1 other e.g. data or description or reason
- (ii) Complete pictograph with three symbols in “Very difficult” (sad faces) and one symbol in “A little difficult” (medium face).  
Expressions do not matter. 1 mark each category. [2]
- (c) (i) Length of stay - e.g. the longer tourists stay, then the more money is spent;  
the demand for services increase;  
impact on environment e.g. more noise pollution;  
less impact if short-stay.  
Accommodation - e.g. If staying in hotels then greater number of jobs;  
campsites may bring in less money;  
issues of litter at campsites.  
Pollution must be qualified. 3 @1 mark (2 + 1) [3]  
Reserve mark for each question. Credit development
- (d) Correct construction of bar graph. No marks for shading. [4]  
Can be horizontal or vertical and with gaps between bars.
- Axis labels of frequency and reasons or listed separately (1)
  - Sequence of figures on vertical axis in correct order/range. (1)
  - Correct plotting of numbers – 1<sup>st</sup> 3 correct (1) 2 out of other 3 correct. (1)

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- (e) (i) AGE - No – not equal numbers from each age group/more 20 – 40 years/people over 40 are under-represented;  
GENDER - Yes – male/female are fairly equal numbers; No – if qualify with statistics e.g. 43/37. 2 @ 1 mark (1 + 1)
- (ii) Time of year – e.g. in winter more visitors skiing; fewer visitors, if any, camping in winter. 3 @ 1 mark [3]  
Time of day – e.g. non-working people may visit in day; those on holidays in day; Credit development. Can be both – ignore or in question.  
workers in evenings especially summer;  
school parties during day.  
No credit for references to daylight and darkness.
- (f) Decision about hypothesis/yes/I agree/almost agree; 1 for decision [6]  
Evidence using data on hypothesis.  
Q1 e.g. 66% have tourism related jobs; 83% improved facilities; Lack 2 for data (max)  
of problems (40%); some problems (under 22%) 3 for relevant statements.  
Q2 e.g. 42% tourists stay in hotels/hostels so bringing income to owners. Max. 5 if only ref. to 1 Q.  
Marks for positive evidence supporting hypothesis. No credit for negative statements.
- (g) Credit detail of equipment, instrument, recording sheet, practical 5 @ 1 mark [5]  
details of time of day, duration of survey etc. If questionnaire Credit development.  
suggested, it must be for something relevant and not already asked. Max 3 marks  
E.g. Environmental survey; on one  
devise scoring system; method.  
observe a variety of sites;  
score litter/noise/traffic;  
record.  
Secondary data use must be qualified e.g. could research previous records of noise pollution.