MARK SCHEME for the May/June 2008 question paper

0460 GEOGRAPHY

0460/04   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.

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   [2]

(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]

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

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   [1]

(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
1 mark for description.
1 mark for reason.
1 other e.g. data or description or reason   [3]

(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) <u>Length of stay</u> - 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.
<u>Accommodation</u> - 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) <u>Reserve mark for each question</u>. Credit development   [3]

(d) Correct construction of bar graph.
- 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 – 1st 3 correct (1) 2 out of other 3 correct. (1)

No marks for shading.
Can be horizontal or vertical and with gaps between bars.   [4]

(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) [2]

(ii) Time of year – e.g. in winter more visitors skiing;
fewer visitors, if any, camping in winter.
Time of day – e.g. non-working people may visit in day;
those on holidays in day;
workers in evenings especially summer;
school parties during day.
No credit for references to daylight and darkness.

3 @ 1 mark Credit development. Can be both – ignore <u>or</u> in question. [3]

(f) Decision about hypothesis/yes/I agree/almost agree;
Evidence using data
Q1 e.g. 66% have tourism related jobs; 83% improved facilities; Lack of problems (40%); some problems (under 22%)
Q2 e.g. 42% tourists stay in hotels/hostels so bringing income to owners.
Marks for positive evidence supporting hypothesis. No credit for negative statements.

1 for decision on hypothesis. 2 for data (max) 3 for relevant statements. Max. 5 if only ref. to 1 Q. [6]

(g) Credit detail of equipment, instrument, recording sheet, practical details of time of day, duration of survey etc. If questionnaire suggested, it must be for something relevant and not already asked.
E.g. Environmental survey;
devise scoring system;
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.

5 @ 1 mark Credit development. Max 3 marks on one method. [5]