
GEOGRAPHY

0460/04

Paper 4 Alternative to Coursework

For Examination from 2016

SPECIMEN MARK SCHEME

1 hour 30 minutes

MAXIMUM MARK: 60

This document consists of **4** printed pages.

- 1 (a) Wind would affect temperature;
easier to see effects of building/ground surface;
rainfall would affect relative humidity 2 @ 1 mark
- (b) (i) Away from the influence of buildings;
no trees nearby to create shade;
on grass so this will not absorb heat/alter temperature. 2 @ 1 mark [2]
- (ii) Max. temperature 12–13 °C inclusive;
min. temperature 1–2 °C inclusive;
present temperature 3–3.2 °C inclusive. 3 @ 1 mark [3]
- (c) (i) Quick/instant reading
Accurate to a decimal point [1]
- (ii) Unsure if same location for each reading;
height at waist will vary between people;
student error in timing;
3 days may not be long enough for reliable figure;
effect of body heat on reading. 1 @ 1 mark [1]
- (iii) Temperature will change during the day;
shows the range of temperature during the day. 1 @ 1 mark [1]
- (d) Day 1 cold morning but warm afternoon, day 2 colder, day 3 similar to
day 2;
mornings always colder than afternoons.
Use of paired statistics to show change to 2 marks max. [4]
- (e) (i) G: 5.4° at 9 m, H: 5.8° at 2 m. 2 @ 1 mark [2]
- (ii) Best fit line straight or curved; 1 @ 1 mark [1]
- (iii) Hypothesis is true (1 mark reserve)
Negative relationship on graph/temperature decreases as distance
increases
Anomaly at C – highest temperature but not nearest to building
Use of paired statistics to show change to 1 mark maximum [4]
- (iv) Buildings/tarmac/concrete absorb heat from sun or internal heating
system
Buildings radiate heat around them
Aspect/south facing/facing sun
Funnelling effect of buildings
Shade from sun by trees/buildings 2 @ 1 mark [2]

- (f) Sites with plants = $A + B + F = 75 + 77 + 73 = 225/3 = 75\%$.
 Sites without plants = $C + D + E + G + H = 76 + 75 + 73 + 75 + 77 = 376/5 = 75.25\%$.
 Credit "No" or negative statement.
 not a higher relative humidity.
 1 mark for calculations, 1 mark for decision [2]

- (g) (i) Hypothesis 2 – To some extent/No (1);
 little difference/almost same between areas with and without
 vegetation. [2]
- (ii) Collect data on more than three days;
 collect data more than twice a day;
 collect data in other months/other seasons;
 students check each other's readings;
 Same person takes readings to reduce height difference. 3 @ 1 mark [3]

[Total: 30 marks]

- 2 (a) (i) Secondary [1]
- (ii) Data collected by students/oneself [1]
- (iii) Questionnaire/pedestrian count/traffic count/river depth measurements [1]
- (b) (i) Pie chart completion
 Dividing line = 1 mark, shading = 1 mark [2]
- (ii) Most visitors come by car
 More come by bus or coach than by train
 None come by bike [2]
- (iii) Car gives independence/flexibility to travel
 Train service may be infrequent [1]
- (iv) Completion of 'very difficult' = 3 symbols [1]
- (c) (i) Completion of bar graph using No. column – walking = 15 and
 other = 9
 Do not credit % figures 2 @ 1 mark [2]
- (ii) Hypothesis is true/partially true (1 mark reserve)
 Physical activities/cycling is more popular with under 40 age groups
 Walking is most popular with 20–60 age groups
 Scenery is most popular with over 60 age group
 Wildlife is popular with all age groups
 Credit paired use of statistics to show differences to 2 marks max [4]
- (iii) More visitors skiing in winter
 Fewer come for other activities in winter – cycling/walking [2]

- (iv) Length of stay:
 If tourists stay longer in the village they spend more money
 Demand for different services such as restaurants if people stay more than 1 day

Accommodation:

If most people visit for 1 day less accommodation is needed
 More demand for hotels creates most jobs/most income
 Youth hostel/campsite may create more demand for bars/fast-food

1 mark reserve for length of stay and accommodation [3]

- (v) Divided bar graph completion [2]
 dividing line correct = 1 mark, shading = 1 mark

- (d) Hypothesis is true/generally true (1 mark reserve)
 Residents' views on effects of tourism are generally positive
 40% of residents say there are no main problems
 Credit paired use of statistics to support evidence to 2 marks max [4]

- (e) Equipment – recording sheet, watch
 Suggested locations of traffic survey
 Times of traffic survey during day
 Different days of week – weekday and weekend
 Different seasons to compare results
 Methodology – tally system
 Reliability – e.g. all surveys done at same time [4]

[Total: 30 marks]