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.

[Turn over

1 **(a)** Wind would affect temperature;
easier to see effects of building/ground surface;
rainfall would affect relative humidity   2 @ 1 mark   [2]

(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 – <u>To some extent/No (1)</u>;
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
          dividing line correct = 1 mark, shading = 1 mark   **[2]**

(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]