UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2010 question paper

for the guidance of teachers

0460 GEOGRAPHY

0460/42 Paper 42 (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 must be read in conjunction with the question papers and the report on the examination.

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UNIVERSITY of CAMBRIDGE International Examinations

1 (a) (i) Method: Stratified sampling/Systematic Sampling/Random (1) OR description instead e.g. ask every 5th person, use random numbers (1)

Qualified/reason:
To get an appropriate gender balance (1)
To get an appropriate age balance (1)
To avoid bias/fair test/valid. (1) [2 @ 1 = 2]

(ii) Easier to deal with data if there is only four classifications/different ages not helpful (1)
Means that respondents don't have to disclose their exact age/may lie (1)
NOT Quicker. Easier must be qualified [2 @ 1 = 2]

(iii) *NOT Why did you come to this town or similar?* Must be about MIGRATION
Where did you come from?/Where were you born? (1) NOT Were you born here?
How long have you lived in this city? (1)
When did you move to the city? (1)
How old were you when you migrated? (1)
Did you migrate alone or with family/friends? (1)
How did you travel to the city when you migrated here? (1) [2 @ 1 = 2]

(b) (i) Use ticks/crosses. Accurate completion of Fig. 2
One error = minus 1 mark; Two or more = 0 [2 @ 1 = 2]

(ii) To check that the questionnaire was producing appropriate answers (1)
To check that everyone was completing the questionnaire in the same way/to compare progress so far (1)
To agree methodology/To change methodology if not working/To improve method (1)
Don't want to do all 25 questions each and then find out that the methodology is incorrect or has been applied in different ways (1) [2 @ 1 = 2]

(c) (i) Use ticks/crosses. Pie graph completion
1 mark for plotting dividing line accurately at 95% or 91%
1 mark for shading sectors – both must be correct [2 @ 1 = 2]

(ii) Hypothesis is incorrect/partially correct Tick HA Credit Data = 1 max but not compulsory. X if hypotheses stated as correct.
Biggest group/highest number of residents came to the city in search of a paid job (1) but this group is only 36 out of 100 respondents (1)
Most people came to the city for different reasons (1) 64/100 (1)
Many people also moved for educational reasons (1) with 32/100 (1) [1 + 2 = 3]

(d) (i) Bar graph completion: Use ticks/crosses. Dom. servants 15; plumbers 8.
2 marks for accurate bar plots; ignore width and shading. [2 @ 1 = 2]

(ii) Hypothesis correct (Tick HA) Data can be credited if supports H.
The biggest groups had paid jobs e.g. shop owner, domestic help, rickshaw driver (1) because 73 of 100/70–75%/estimate ¾ respondents had paid jobs (1)
Minority did not have paid jobs (unemployed, student, housewife) (1) with 27/100. (1)
[2 @ 1 = 2]

(e) NO MARK FOR Hypothesis; 1 reserve for Data; then 2 others. Written statements must be comparative; data should be compared as pairs.
Hypothesis is correct in that all 100 respondents (1) earned less when compared with the average income for the city in Uttar Pradesh (1) <50 000 with 54 000 (1)
Hypothesis partly correct because 27 out of 100 (1) had very low incomes compared with the city average (1) <20 000 with 54 000 (1) but some of the rest will be above Uttar Pradesh in the 20 000–50 000 category. (1)
Hypothesis incorrect because compared with the population of India as a whole many respondents probably earned above the national average (1) of 24 000 with 73/100 in 20 000–50 000 (1) [3 × 1 = 3]

(f) **(i)** An attempt to get a balanced sample/fair test. (1)
Did not want to get too many men/women or old/young (1)
Different patterns between male/female; age. (1) [1]

(ii) Must relate to age/gender
More men than women moved to the city (1)
More old than young moved to the city (1)
The age of the migrants influences the jobs they have (1)
The gender of the migrants influences the jobs they have (1)
On average men earn more than women (1)
On average young earn more than old (1) [1]

(iii) Respondents may not want to divulge personal information (1)
Earnings may be informal/not paying tax (1)
Respondents might be suspicious of why asked/use of data (1)
Income may vary/may not know what it is (1)
Harder to categorise/graph (1)
May lie/be ashamed (1) [2 @ 1 = 2]

(g) MUST BE RELEVANT/OTHER i.e. not age/gender/jobs/migration. 1 mark for relevant choice plus 3 for fieldwork OTHER than questionnaire – 0 if suggest asking questions/interviews. NO MARKS IF CHOICE IS INAPPROPRIATE
e.g. Health/sanitation or quality of houses/quality of environment or education/ availability of services such as electricity, drinking water;
Carry out investigation by taking photographs,
Keep a diary,
Make a blog, video etc.
NOT Quality of life. Credit detail of suggested methods [1 + 3 = 4]

[Total: 30]

2 (a) (i) To achieve equal time divisions between readings (1)
To compare/fair/valid/consistent/reliable. (1) [1]

(ii) Access to school at weekend/school closed (1)
Student is busy at weekend (1)
Allow personal problems e.g. late/traffic delays (1) [1]

(b) (i) Emphasis on used of rain gauge NOT siting factors or recording.
Funnel placed into jar (1)
Jar stood firmly in ground/above land (1)
Allow rainfall to collect in measuring cylinder/jar (1)
Read water level in measuring cylinder (1)
Empty water to set up for next day (1) [3 @ 1 = 3]

(ii) Emphasis on site factors
Clear of buildings/away from shelter (1)
Clear of trees/away from interception (1)
Clear of people/animals/away from interference (1)
On grass/not concrete (1)
On flat land (1) [2 @ 1 = 2]

(iii) The letters (N, E, S, W) show… *directions/compass or cardinal directions/North East South West.* (1)
The arrow shows… *which direction the wind is coming from/from which the wind is blowing.* (1)
The wind vane is located on the roof so that… *there is no obstruction/maximum wind strength/interference* (1) [3 @ 1 = 3]

(iv) Wind sock/Streamer/thread attached to pole/use a flag/Throw grass into the air/Wet finger (1) NOT equipment. [1]

(v) Two ticks/crosses. Completion of wind rose graph NW = 3, N = 1 [2 @ 1 = 2]

(vi) Two ticks/crosses Completion of scatter graph. Plot at 4 mm and 8 m [2 @ 1 = 2]

(vii) Tick/cross HA: (1) plus statement (1) plus reserve (1) for Data.
NOT little from north.
Hypothesis is not supported (1) if just consider S winds (1) as only rainfall generally 5mm when winds from S (1)
Hypothesis is supported (1) if include SW winds & SE winds in quadrant (1) with 36/52 mm of rainfall (1) or most comes from SE/E. (1) [3 @ 1 = 3]

(c) (i) Primary data is collected by student herself (1)
Secondary data is obtained from other sources/already exists/books/the internet. IF collected by others/not herself must be qualified. (1) [2 @ 1 = 2]

(ii) Tick/cross. 72/14 = 5.14. Accept 5.1 or 5.142 as only alternatives. [1]

(iii) Tick/cross: Completion of dispersion graph by plotting 9mm at 2 days at airport. [1]

(iv) Answers must relate to pattern
More variation in rainfall at airport/more dispersed/spread out (1)
More days with little rainfall at school (1)
More days with high rainfall at airport/less days with high rainfall at school (1) [2 @ 1 = 2]

(v) Airport is nearer to the sea/school further away from sea (1)
Winds blowing from sea generally bring more rain (1)
More incidences of winds from S (from sea) at airport (1)
Possible difference in altitude (airport higher above sea level) (1)
Relief rainfall possible (1) [3 @ 1 = 3]

(d) Emphasis on HOW the student could improve THESE results; do not credit new investigations
Repeat the study herself (1)
Done study over longer period of time than two weeks (1)
Make two sets of recordings (possibly a friend) to increase reliability (1)
Ensure readings are comparable at the two locations (e.g. time of readings) (1)
Take readings in different seasons to see if there is any difference (1)
Take readings at more than one time in the day (1) [3 @ 1 = 3]

[Total: 30]