

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0460 GEOGRAPHY

0460/41

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, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2015 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

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- 1 (a) Hyderabad less primary / India more primary
 Hyderabad more secondary / India less secondary
 Hyderabad more tertiary / India less tertiary
 Hyderabad most / over half in tertiary **but** India most / over half in primary
 Hyderabad over half in tertiary and secondary **but** India over half in primary
 Hyderabad least in primary **but** India least in secondary
- Need comparison
 Credit 'only' for comparison and ignore stats 2 @ 1 [2]
- (b) Systematic sampling
 Ask every tenth person / regular intervals
 OR
 Random sampling
 Use random numbers / ask next person they meet / ask anybody / any order / no specific order
 OR
 Stratified sampling
 Ask appropriate age / gender balance/ in proportion to population / put into groups
- 1 mark for name, 1 mark for method
 If name of method is wrong, give description mark for description of one method
 If name and description don't match credit 1 mark [2]
- (c) (i) To find out if they are residents (visitors) or migrants / to find if they live there
 Students only want to ask people who have moved into area / targeting the right people
 Some people they approach will always have lived there / not be a migrant
 No need to continue if not a migrant / not waste people's / student's time / save time / to see if they are worth interviewing
 Results will be unreliable / inaccurate / / not valid / wrong information if local people are included
 So that answers are relevant to hypothesis [2]
- (ii) Map completion:
 10 people from Europe to Jayabheri
 Need correct width and correct shading for 1 mark [1]
- (iii) Map completion:
 5 people to Begumpet from Tamil Nadu
 Need shaded circles [1]
- (iv) Shows overall pattern of distribution / compares areas / shows where migrants come from / clear visual impact / easy OR simple OR quick **to** interpret / easy **to** read / easy **to** see results / easy **to** count [1]
- (v) Complete divided bar graph for Begumpet:
 2–4 years = 11, more than 4 years = 27
 1 mark for dividing line at 23, 1 mark for shading both sections [2]

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- (vi) Completion of graph – Find work in the city
Jayabheri = 4 (cross), Begumpet = 21 (square) 2 @ 1 [2]

- (vii) Results **do** support hypothesis / hypothesis is **true** – 1 mark reserve

WHERE (for example)

Most to Jayabheri come from outside India, most to Begumpet come from within India

More to Jayabheri from USA

OR Indian migrants to Jayabheri only come from 1 state, Indian migrants to Begumpet come from 6 states

WHEN (for example)

Migrants to Jayabheri have lived there less time than migrants to Begumpet

More newcomers to Jayabheri

WHY (for example)

Migrants to Jayabheri were mostly transferred by their company **but** migrants to Begumpet mainly moved to find work / better home

More migrants to Jayabheri were transferred by their company

Credit 1 mark for each of where, when and why

Credit 1 mark max for stats (accept percentages)

Paired stats – accept tolerance of 1

e.g. 34 migrants to Jayabheri from USA and 5 to Begumpet

9 migrants have lived in Jayabheri for less than 6 months and 2 in Begumpet

43 migrants to Jayabheri were transferred by the company and 3 in Begumpet

43 migrants to Jayabheri were transferred by the company and 21 moved to Begumpet to find work

[5]

- (d) (i) Completion of bars for Begumpet:
Benefit of affordable apartment = 30, problem of traffic congestion = 26 2 @ 1 [2]

- (ii) 1. Easy access to the airport
2. A secure housing area for the family to live in
3. Traffic congestion caused by local industries 3 @ 1 [3]

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(iii) More support for **Jayabheri** – 1 mark reserve

Jayabheri has more benefits / fewer problems than Begumpet or vice versa
 Jayabheri has more benefits than problems **but** Begumpet has more problems than benefits

Jayabheri has more **types** of benefits suggested or vice versa
 Jayabheri has fewer **types** of problems suggested or vice versa

Credit paired data (locations and **total** numbers) to **1 mark max**
 e.g. Jayabheri has 147 benefits and Begumpet has 77 benefits
 Jayabheri has 6 types of benefits and Begumpet has 4 types of benefits
 NO credit for reference to people in stats.

Hypothesis conclusion is more support for Begumpet = 0 (XHA)
 If no decision \hat{H}_A and credit evidence

[3]

- (e) Talk to people who live in squatter settlement / interview them / ask question
 Take photos (of different houses / services to show varying conditions)
 Collect secondary data from internet / local government records / census
 Make a blog to get peoples' opinions about housing / services
 Make a podcast / video to show housing / services
 Draw field sketches (of houses / services) and label them to show conditions
 Do a housing quality survey / bi-polar survey
 Draw a land use map of services / do a land use survey
 Count / tally different types of services / record different services
 Count / tally number of big houses / brick-built houses
 Observe / look at / make notes on / write a description of / walk round **something** e.g. housing conditions

Credit development of ideas related to various methods

[4]

[Total 30 marks]

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- 2 (a) Must relate to safety
1. See when the sea would be safe to take measurements in / not get cut off by the tide / less dangerous to go at low tide / dangerous at high tide
 2. To take appropriate clothing or example / to see if it is safe to work / not work if storm is forecast / take sunblock
 3. Would be able to communicate / call if they got into difficulty / got separated / call in an emergency
- 3 @ 1 [3]
- (b) (i) Wind sock / streamer / material held up or attached to pole / throw grass into the air / wet finger / kite / observe features blown by the wind
Use compass (to see direction wind is blowing)
Check every day for a month / check over period of time
- [2]
- (ii) Wave crests approaching the beach
- [1]
- (iii) Wind drive waves / wave move in direction of wind
Pebbles / waves / swash come to the beach **at an angle** / oblique
Backwash / waves takes material **back down** the beach / at right angles / perpendicular
Process is repeated / moves in zig-zag along beach
- [4]
- (c) (i) Plot 11.2, 10.8 at site 5
- 2 @ 1 [2]
- (ii) Hypothesis is **correct** – 1 mark reserve
Distance travelled is greater on unprotected coast / orange travels further on unprotected coast – or vice versa on protected coast
Distance travelled increases away from area of protection
Every distance on unprotected coast was greater than on protected coast
Least distance on unprotected coast was more than greatest distance on protected coast
- Credit paired data (sites and distances) to **2 mark max**
Only credit **average** stats not individual tests
e.g. site 1 average distance moved is 7.3m and site 4 average distance is 9.8m
Average distance moved on protected coast (sites 1,2,3) is 7.6m and on unprotected coast (sites 4,5,6) is 11.0 or 11.1m or 11.06m
On protected coast distance varies from 7.3–8.2m and on unprotected coast from 9.8–12.4m
On protected coast distance is less than 9m and on unprotected coast distance is more than 9m / 7–9m on protected coast and 9–13m on unprotected coast
Only credit exact figures shown above
- [4]
- (iii) Wind direction:
If wind is from a different direction results could change / if wind blows from same direction results stay the same
Waves may be approaching the coast from a different direction OR
Waves move floats / oranges in a different direction

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Strength of wind:

If wind is stronger / weaker results could change / if wind is same strength results stay the same

Waves may be less / more powerful to move floats / oranges OR

Waves move floats / oranges further or less distance / it affects distance moved

NB: If wind is stronger oranges move further = 2 marks

2 + 2 [4]

(d) (i) Plot Groyne D on bar graph:

South side = 1.03m above beach

north side = 2.56m above beach

2@ 1 [2]

(ii) Beach is higher / more material on south side of groynes or vice versa on north side

[1]

(iii) The groynes trap material which is moved by longshore drift / from south to north / material collects or builds up on south side

[1]

(iv) Make more measurements / more than 3 measurements along each groyne

Repeat the investigation at different times of the year

Get other students to check accuracy of measurements

2 @ 1 [2]

(e) Lay tape measure on beach to create a transect / perpendicular to beach or up the beach

Poles put at break of slope / at equal / set / certain distances apart

Measure distance between poles

Poles must be vertical

Read angle from lower pole (nearer to sea) to upper pole (further from sea)

Student holds clinometer at top / at same height on ranging pole

Read / measure / record angle

Move poles up beach / along profile to next site

Need annotations on diagram not just labels

[4]

[Total 30 marks]