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CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0460 GEOGRAPHY

0460/42 Paper 4 (Alternative to Coursework), maximum raw mark 60

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1 (a) Examples to do with avoiding risk of accident
Stay in designated area (1)
Keep away from base of cliff / overhang (1)
Check tide times before setting off (1)
Do fieldwork at low tide/not high tide (1)
Avoid slippery rocks (1)
Work in pairs / groups / take phones / whistle (1)
Wear suitable shoes/clothing/waterproofs/helmets (1)
Don't go in the sea (1) [1 + 1 + 1 = 3]

(b) (i) Examples: 1 mark for Advantage; 2 marks for Disadvantage.

Advantage: (1)
Easy to do / no need to measure angle
Needs little equipment / only needs measuring tape / ruler / clinometers
Easier to draw / construct profile
Gives a lot of information/data

Disadvantages: (2)
Measuring error/ inaccurate reading/effects of weather on measuring
Hard to measure vertical distance
Measurements taken every metre may miss change in slope
Complication of having to add height difference to readings/measurements
Tape might not be long enough [1 + 2 = 3]

(ii) Examples

Disadvantage:
Only selecting 1 pebble every metre / sample is too small (1)
Selected pebble may be an anomaly / not representative (1)
May select pebble/involve bias (1)

Improvements:
Measure > one pebble/larger sample at each site and average results (1)
Use a quadrat and measure all pebbles within frame (1)
Choose pebbles at shorter distance to get bigger sample (1) [1 + 1 = 2]

(c) (i) Completion of cross-section at **3m (0.5m**) and **8m (1.1m**) [1 + 1 =2]

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(ii) Examples:

Similarities: (1 + 1)
Beach has three levels
Both sloping/slope up/down
Change in gradient / steep slope at each tide level
Each section is concave

Differences (seen on fieldwork cross-section) (1 + 1)
Flatter section above low water mark
Flatter section above high tide
Less steep above high spring tide
No flat section at top of beach / above storm tide
Flatter overall/steeper in textbook
More curved between HT/LWM

(May be from textbook example i.e. opposite of differences above) [2 × (1 + 1) = 4]

(iii) Hypothesis is TRUE/CORRECT/GENERALLY/PARTIALLY TRUE

If say incorrect/false/not true = 0

(iv) Plotting two results on scatter graph: **7m = 10cm**, **15m = 2cm** [1 + 1 = 2]

(v) Draw best-fit line; must have at least 4 plots each side (There are 16 in all) and line must be straight, go from top left to bottom right and touch two axes at each end [1]

(vi) YES / hypothesis is generally/mostly/partially correct / there is larger material towards top of beach (1 Reserve mark)

Evidence/data
Credit two examples to show the change – need pebble size and distance from cliff.
Credit 2 marks max for two examples of paired data/evidence

e.g. Length 18 cm next to (0m from) cliff but only 1 cm at 14 m from cliff (1)
12m from cliff length is 5cm but at 5m from cliff length increases to 14cm (1)
Largest pebble is only 2 m from cliff but smallest is 13/14 m away (1)

Reference to anomalies at 2/8/11/15m – 1 mark MAX for anomaly. [1HA + 3 = 4]

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(vii) Examples
More powerful swash/strong waves/ big waves/storm waves take all material up the beach (1)
Less powerful backwash/ water going back carries smaller material down the beach (1)
Erosion more rapid close to sea where more frequent water (1)
Rockfalls from cliff provide larger material at back of beach (1) [1 + 1 = 2]

(d) (i) Examples: credit same labels/annotation on diagram if drawn

Incoming waves at an angle/oblique to the coast (1)
Waves are driven by on-shore/prevailing/most common winds (1)
Waves/swash carries pebbles up beach at an angle (1)
Backwash/waves going back take pebbles straight down beach/ 90 degrees under gravity (1)
Process is repeated with each wave (1)
Pebbles take zig-zag route up the beach (if in text) (1)
Pebbles go up beach at angle and down at 90 degrees (if in text or diagram) (1)
[1 + 1 + 1 = 3]

(ii) Examples of expected ideas – Three alternatives below

Paint pebbles (1)
Group them close to water's edge (1)
Leave them for period of time (1)
Put ranging pole where pebbles start and another at fixed distance along beach (1)
Find the pebbles/see how many moved from starting point (1)
Do test several times to get an average (1)

OR

Drop orange/float in to sea/at water's edge (1)
Mark starting position with ranging pole (1)
Allow orange/float to move for a period of time (1)
Measure distance orange/float has moved (1)
Do test several times to get an average (1)

OR

Find an area with groynes (1)
Measure the height to the beach each side of the groyne (1)
If different height longshore drift is taking place (1) [1 + 1 + 1 = 3]

[Total: 30 marks]

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2 (a) (i) 1. Move into/to a country
2. Move out/exit/from a country [1 + 1 = 2]

(ii) Push: reasons that make people want/force people to leave an area / country OR negative factors
Pull: reasons that attract people to an area / country OR positive factors. [1 + 1 =2]

(b) (i) Collected from other sources/collected by others / already available / not collected by self / second hand (1)

e.g. books / internet / data table / newspaper / documents (1) [1 + 1 = 2]

(ii) Plot of dividing line clockwise at 79% (NOT 21%) (1)
Correct shading with largest slice cross-hatch/smallest crosses (1) [1 + 1 = 2]

(c) (i) 31 – 50 [1]

(ii) Examples

Answers may be biased (1)
Answers would be similar/from same area/not representative (1)
Students already know the answers (1)
Inappropriate / unbalanced age/income structure (1)
Would involve least effort by student (1)

(iii) Example
Systematic / random / stratified (1 Reserve mark for naming one of these)

Description mark must relate to type chosen e.g.

Systematic
Use questionnaire with every tenth person (1)
Use questionnaire at regular intervals (1)

Random
Use questionnaire with next available person/any person/first person see/ no pattern to choosing people (1)
Use random number table to generate order to ask people (1)

Stratified
Get equal / proportional number of male / female of different age groups (1)
Get equal / proportional number of different socio-economic groups (1)

(iv) Examples

Students only want to ask migrants who have come to work (1)
Migrants may have moved for other reasons than work (1)
Hypothesis/questionnaire is for migrants (1)
Many people they approach will not be migrants (1)
Not waste time (1)
To introduce purpose of questionnaire (1) [1 + 1 = 2]

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(d) (i) Plot Servants bar at 7; ignore shading/width [1]

(ii) NO / disagree / conclusion is incorrect (1 mark reserve)

Incorrect evidence:
Most jobs are not highly paid/skilled OR most highly paid jobs have fewer people (1)
72%/36 jobs are not highly paid or skilled (1)
Only 28%/14 are highly paid or skilled (1)

Two specific examples of these jobs at 1 mark each to max 2
10 maids or 20% is large percentage not highly paid/skilled (1)
Finance manager only 2%/1 highly paid/skilled (1) [1 HA + 1 + 1 + 1 = 4]

(e) (i) Completion of flow lines on Fig. 8. Mark width at start of arrow.

Canada = 2, Pakistan = 6 [1 + 1 = 2]

(ii) Examples: Allow 1 max for general references to map>technique

Technique (up to 2 marks)
(Arrows) shows direction of movement (1)
(Width of base/start of arrow) shows number/how many migrants move (1)
Arrows taper to a point so they don't overlap (1)

General map points to 1 Max
Shows information from different countries (1)
Shows information on MEDCs and LEDCs (1)
Easy to read/use/understand/interpret (1) [1 + 1 = 2]

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(iii) NO / does not agree with hypothesis (1 mark reserve TICK/CROSS HA)

Evidence
Least migrants from MEDCs/ most migrants from LEDCs (1)
Only 8–10 migrants from MEDCs / 40–42 migrants from LEDCs (1)
MEDCs OR Australia/UK/Canada USA provide 4 or less each (1)
LEDCs provide at least 3 each (1)

Credit named MEDC / LEDC with data/evidence to 2 marks max e.g.
Australia is an MEDC but only 1/lowest number from there (1)
Most/10 migrants come from India which is an LEDC (1)

SEE TABLE BELOW FOR SPECIFIC FIGURES USED ON MAP

Country	Number of migrants
Australia	1
Bangladesh	3
Canada	2
Egypt	6
India	10
Indonesia	3
Pakistan	6
Philippines	5
Sri Lanka	4
UK	4
USA	2
Yemen	4

[1 HA + 1 + 1 + 1 = 4]

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(f) Examples

General statements (up to 2 marks)
Lower paid / less skilled jobs mainly done by migrants from LEDCs (1)
Higher paid / more skilled jobs done by migrants from MEDCs (1)
LEDC migrants do jobs such as cleaner, maid, servant, waiter, construction site worker (at least two) (1)
MEDC migrants do jobs such as finance manager, IT, nurse, oil engineer, sales manager, teacher (at least two) (1)

Specific interpretation of countries/jobs (1 max)
Exception of only 1 I.T. consultant from India (1)
2 out of 3 maids from Sri Lanka but only 1 cleaner (1) [1 + 1 = 2]

[Total: 30 marks]

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