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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

MARK SCHEME for the May/June 2012 question paper

for the guidance of teachers

2217 GEOGRAPHY

2217/22 Paper 2 (Investigation and Skills), maximum raw mark 90

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.

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Section A

1 (a) (i) 4686

(ii) 471886 [1]

(iii) 69km [1]

(b) (i) Narrow tarred
Reservoir
Dam
Spot height
Hut [5]

(ii) Orchard/plantation [1]

(iii) All areas indicated = 2 marks
One area indicated = 1 mark [2]

(c) (i) 1800 –2000 [1]

(ii) Difference in height of 21.7
Gradient of 1 in 82 to 1 in 93 [2]

(iii) NW [1]

(d) (i) Sketch completion of section to show dip for river valley [1]

(ii) Location of river between 46mm and 50mm from left axis [1]

(e) Wide tarred road runs W-E
Other roads mostly straight
Other roads parallel
Other roads perpendicular intersections
Other roads run SW-NE and NW-SE
Grid/square/rectangular/blocks pattern
High density/many intersections [3]

[20]

2 (a) (i) Correct line [1]

(ii) Correct shading [1]

(b) (i) 9 [1]

(ii) 50km [1]

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(c) (i) Slight to moderate

(ii) If poorly built damage indicates a lower level
If well built damage indicates a higher level

(iii) Subjective
Need an average opinion
Find out if everyone felt it [2]

[8]

3 (a) (i) Lowered [1]

(ii) 1903–1904 [1]

(iii) 7 metres [1]

(b) Correct positions on diagram [2]

(c) Erosion/hydraulic action/abrasion
Concentrated at notch/notch grows in size/cave formed
Undercutting
Collapse/slumping
Retreat/nearer to village
Repeated action [3]

[8]

4 (a) (i) Correct completion of graph. [2]

(ii) 1920 [1]

(iii) Decrease 1910 to 1920
Increase 1920 to 1930/1940 to 1970/overall
Levels out/small increase 1930 to 1940 [3]

(b) (i) Completion of graph [1]

(ii) 0–4 age group is smaller than 5–9/10–14
5–9 age group is smaller than 10–14
Base of pyramid is getting narrower [1]

[8]

5 (a) (i) Kenya [1]

(ii) Trinidad and Tobago [1]

(iii) 260 kg (per hectare) [1]

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(iv) Ireland and New Zealand
Japan and Denmark
UK, Germany, USA (any two)

(b) Weak relationship
Negative relationship
Low percent in agriculture has low, medium and high fertilizer use
High percent in agriculture has low or medium fertilizer use
High fertilizer use has a low percentage in agriculture
Paired data: 2 marks
Reserve 1 for data [4]

[8]

6 **(a)** Sand / beach
Rocks
Bay
Headland
Trees
Low coastline
Gentle slopes [3]

(b) **(i)** Cumulus [1]

(ii) 3 [1]

(c) **(i)** (Pleasure) boats
Swimmers
Jetties/(boat) moorings [2]

(ii) Factory/chimney [1]

[8]

Section B

7 **(a)** **(i)** Examples: Credit ONLY weaknesses of the 4 questions.
Only contains closed question/yes-no answers (1)
No reasons/opinions are asked for (1)
Answers are too obvious (1)
Question 1/global warming question irrelevant (1)
Questions general/vague (1)

[1 + 1] **[2]**

(ii) Need three different examples; can be opposites of (i)
Gives a scale/range/options/multiple choice/quantitative answers (1)
Includes gender/age group (1)
Introduction to the questionnaire (1)
Reasons/opinions are asked for (1)
Style more user-friendly/tick boxes/circling is easier/circling is quicker (1)

[1+ 1 + 1] **[3]**

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(iii) Can be any one of stratified, systematic or random. Need to name (1) descri (1 mark) and give one reason (1 mark) why they chose the method.

Stratified sampling (1)
Samples an appropriate gender balance (1)
Samples an appropriate age balance (1)
Avoids bias (1)
Creates a mix of age/gender –variety/representative (1)

Systematic sampling (1)
Asking at regular intervals e.g. every tenth person (1)
Easy to organise/collect data (1)
Fast to collect samples (1)
Avoids bias (1)

Random sampling (1)
Generates formal sample by random numbers (1)
Can generate sample by informal random choices e.g. 3rd then 7th person (1)
Avoids bias by using random system to choose people (1)
OR
Generates informal sample (1)
Ask anybody with no real criteria e.g. best friend (1)
Convenient/quick (1)

[1 + 1 + 1] **[3]**

(b) (i) Wind turbines only work when it is very windy **[1]**

(ii) Graph completion. 1 mark for each correct plot; ignore any shading.
Wind power doesn't pollute the atmosphere = 46
Wind is free = 19

[1 + 1] **[2]**

(iii) Yes/agree with hypothesis/TRUE.
Comparable data such as yes = 72/no = 28;
72% or 72/100 agree with it (1)

[1HA + 1] **[2]**

(iv) Reasons such as:
There are no waste materials (1)
Land beneath/around the turbines can still be used for farming (1)
Wind turbines can be a local scheme (1)
Can be in a remote area/hilly/off shore (1)
Cheap running costs/low maintenance (1)
Noise is relatively low (1)
No need to mine coal/gas/oil/fossil fuels (1)
No need for expensive nuclear stations (1)

(c) (i) Completion of divided bar:
Two dividing lines at 30 and 82 (1 + 1)
Correct shading of all 3 sectors = 1

[(1 + 1) + 1] **[3]**

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(ii) Wind turbines will create few jobs in the area.
Allow 'last one/bottom one/statement number 5'

(iii) For the hypothesis: (1 Reserve)
60%/most agree that it will spoil the view (1)
90%/almost all agree that they create a lot of noise (1)
52%/majority agree that will create few jobs in the area (1)

Against the hypothesis: (1 Reserve)
70%/most disagree that tourists will stop visiting the area (1)
84%/almost all disagree that turbines will be a danger to walkers (1)

Evidence can be data or judgement (made by looking at data).
EXCEPTION : If candidates focus on the "hilltop" in the hypothesis they can really only say
Hypothesis is TRUE because 60% agree it will spoil the view (1)
Allow max. of 2 marks for this response (1HA + 1 max = 2).

[1HA + 1R + 1R + 2] **[5]**

(d) (i) Examples each worth 1 mark each.
HEP/Hydro/Water turbines
Tidal
Solar
Geothermal
Biogas
Wave

[1 + 1] **[2]**

(ii) Four processes at 1 mark each
Sun's energy/short-wave radiation passes through the earth's atmosphere (1)
Some energy absorbed by the earth's surface (1)
Earth's surface heats up (1)
Long-wave radiation radiated back towards space (1)
Greenhouse gases form blanket/absorb/trap outgoing radiation/prevent escape (1)
Radiation reflected back towards earth's surface (1)
Atmosphere heats up (1)

[1 + 1 + 1 + 1] **[4]**