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CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2012 series

0460 GEOGRAPHY

0460/21 Paper 2, 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.

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1 (a) (i) narrow tarred/Old Road, [1]

(ii) aerodrome landing area/airport/airstrip, [1]

(iii) spot height, [1]

(iv) quarry/excavation, [1]

(v) mining/prospecting trench,

In (a) if more than one answer is given and one is wrong then the answer = 0. [1]

(b) (i) north to south, [1]

(ii) narrower in north/wider in south,
angle of tributaries/confluences,
dendritic pattern,
build up of water behind dam,
higher land in north,
contours make V shape upstream, [2]

(iii) 3350 – 3450 (metres), [1]

(iv) 986495, [1]

(c) (i) correct position of Chantalitiki river: 89 – 92cm from left, [1]

(ii) correct position of wide tarred road: 34 – 38cm from left, [1]

(iii) correct position of building: 26 – 29cm from left,

Use the ruler device to measure the answers.
Arrows should end within about 1cm of the profile. Measure to the point that the arrow projects to.
There should be no ambiguity.
If there is more than one response and one is wrong then the answer = 0.
Allow labels by names or question numbers. [1]

(d) huts and buildings,
sparse/isolated/dispersed/scattered (allow sparse population but not low population),
some nucleation/clusters,
tracks/cut lines/game trails,
one "other" road,
no tarred roads,
network/many junctions/interlinked,

rivers/watercourses,
pans,

Reserve one for each category [4]

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(e) west gentle,) west gentler/east steeper
east steep,) = 1
west lower/east higher,
620m/over 620m in east,
520 – 540m in west,
plateau in west, [3]

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2 **(a)** 5, [1]

(b) **(i)** E mostly within intensity 8 area or adjacent ocean, [1]

(ii) any area within intensity 6 area shaded, [1]

(iii) concentric pattern,
highest in centre/effects get less further from epicentre,
centred near San Francisco,
some variations in pattern/not even/not regular,
isolated area of intensity 4 within intensity 3 area, [2]

(iv) variation in rocks/geology,
variation in building type,
variation in relief leading to landslides,
variation in soil type/regolith, [1]

(c) powerful/strong earthquake/buildings collapsed,
many years ago therefore poor building design,
many years ago therefore poor relief available,
many years ago therefore no warning systems,
many years ago therefore no earthquake drills,
many years ago therefore no planning regulations, [2]

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3 (a) Double Roof
insulation,
prevent instruments from overheating,

Slats/louvres
allow air to circulate,
stop wind entering,
prevent instruments from overheating,

Painted white
reflect sun's rays,
prevent instruments from overheating,

1 metre above ground
standardise with other weather stations,
avoid heating/cooling from ground surface,

On grass
standardise with other weather stations,
little heat reflection,
avoid heating/cooling from ground surface,

2 explanation points per feature. [4]

(b) (i) 14°C and 22°C, [1]

(ii) 8°C,

In **(i)** and **(ii)** if units not given max 1.
Use of correct units once validates the rest. [1]

(iii) 40,
%,

Mark independently.

Carry forward errors from **(i)** and **(ii)**. [2]

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4 **(a)** secondary,
tertiary,
primary, [3]

(b) **(i)** quarrying/mining, [1]

(ii) Advantages
jobs,
raw material,
boost to (local) economy/multiplier effect/economic impact (on area),

Disadvantages
eyesore/visual pollution,
danger specified,
loss of agricultural land,
noise from machinery/blasting/trucks,
dust,
increased road traffic,
locals may need to be relocated,
biodiversity/ habitats lost,
water contamination,

Reserve one mark for each. [4]

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5 **(a)** **(i)** Northland,
Taranaki,
Manawatu-Wanganui,
Canterbury, [1]

(ii) West Coast, [1]

(iii) Hawke's Bay shaded with cross hatches, [1]

(iv) 90 000, [1]

(b) overall densities low,
low(er)/sparse(r) in west,
medium/higher/denser in east,
low/fairly low density in north/south,
densest in Canterbury/central-east,
sparsest in West Coast/central-west,
one numerical value with units to illustrate any of the above points,

Figures alone = 0 [3]

(c) wetter areas sparser/drier areas denser, [1]

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6 **(a)** 49 – 52° = 2,
47 – 54° = 1,

[2]

(b) bar plotted accurately,
key used correctly, [2]

(c) bring unused land under cultivation,
greater % of GDP from agriculture,
less dependence on subsistence agriculture,
increased foreign exchange earnings,
environmental impact of air transport,
use land which could be used for food crops,
increase food imports,
increase soil erosion/desertification/deforestation/pollution from fertilizers or pesticides, [4]

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