UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2012 question paper

for the guidance of teachers

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 must be read in conjunction with the question papers and the report on the examination.

- Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2012 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

1 (a) school/education
motel
golf course
club
hospital/medical
hotel
substation/power line/power/electricity
police station
post office
reservoir/dam
railway

2 functions = 1 mark [3]

(b) (i) trigonometrical station/point/pillar [1]

(ii) north east [1]

(iii) 4000 – 4200 (metres) [1]

(iv) 979826/7 [1]

(v) 1370.7 metres (allow 1320.7) [1]

(c) (i) correct position of Hunyani Range
correct position of hill slope facing west (4 options) [2]

(ii) cultivation [1]

(d)

	Fernlea (0380)	Hunyani (0680)	Both these areas	Neither of these areas
railway		✓		
huts and buildings	✓			
power line	✓			
river flowing west		✓		
wide tarred road				✓

More than one tick per row = 0 [5]

(e) straight sections
meanders/bends
islands/braiding
rapids, (rapids and waterfall = 0)
wide/100m–300m
variable width
flows N/NNE/NE
tributaries
gentle gradient [4]

2 **(a)** **(i)** along the Equator/0º
between 10° N and 3–10° S
on west (coast)
named country
more north of equator
coastal [3]

(ii) different dates
deforestation has occurred
different degrees of accuracy
different definitions of TRF
different survey methods/done by different people [2]

(b) **(i)** hot wet climate (encourages growth) [1]

(ii) sheds heavy rainfall from leaves (therefore transpiration can continue) [1]

(iii) no seasons therefore continuous growth
no dry/cold season therefore no need to lose leaves (at same time)
no seasons therefore trees lose leaves at different times [1]

3 **(a)** upland/mountains/high
cliffs/crags
steep slopes
scree/rocks/rocky
bare rock/lack of vegetation/lack of soil/sparse vegetation
light coloured rocks
ridge/escarpment/arête (on right)
valley/lower ground (on left)
patches of vegetation in foreground/on left/on lower ground/in valley
small lake/pool/pond [5]

(b) water in cracks in rock
freezes
expands
repeated action
cracks widen/deepen/rocks shatter [3]

4 **(a)** **(i)** correct location of D

(ii) correct location of L

(iii) correct location of N [1]

(b) **(i)** bridge (point)
road junction/roads meet [1]

(ii) river/stream (to provide water) [1]

(iii) on gentle slopes
*therefore well-drained
*therefore easy to build
avoids upper/steep slopes
not on/above the level of the flood plain/valley floor
will not flood
south facing
*warmer/sunnier

*as development only [3]

5 **(a)** finance
research facilities
government influence
quality of life

Reduce mark awarded by one for every tick more than four. [1]

(b) vertical axis: labelled "number of companies"
vertical axis: appropriate scale labelled – should start at zero unless break is indicated
horizontal axis: has 3 years labelled
accurate plotting of three bars

Axes reversed max 2 (lines 1 and 4) [4]

6 **(a)** **(i)** large urban areas/100 km across/big cities
7 urban areas
2 named urban areas from the main four

(ii) low rainfall/mostly < 500 mm/as low as 250 mm [1]
lack of rain alone = 0

(b) **(i)** on large rivers
in wetter areas
in mountains therefore wetter
in mountains therefore good dam sites [2]

(ii) distant from urban areas [1]

(c) expense of canal construction/maintenance
uses the water supply of other areas
potential environmental effects max 2
supplies come from an already dry area
Los Angeles and San Diego have 300 – 600 km transfers
may require pumping
may be evaporation losses
may be leakage losses [3]