CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2013 series

0460 GEOGRAPHY

0460/22 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.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

1 (a) (i) dam **[1]**

(ii) Mteri **[1]**

(iii) narrow gravel/(narrow) earth **[1]**

(iv) Lipfuli/national monument/place of historical interest **[1]**

(v) compound, **[1]**
cultivation/dam,
(agriculture, cadastral boundary, narrow road, track and cut line don't spoil)
More than one answer and one is wrong = 0 (unless stated above). **[1]**

(b) 4 correctly placed arrows within the following tolerances:

(i) swamp 11–20 mm (allow 77–80 mm) **[1]**

(ii) Lundi River 36–44 mm **[1]**

(iii) pan 58–64 mm **[1]**

(iv) west facing slope of Bendezi Hill 80–92 mm, (allow 77–95 mm if a range is given)
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, or if a range is given and part is out of tolerance, then the answer = 0.
Allow labels by names or question numbers. **[1]**

(c) (i) average height between 340–400 m **[1]**

(ii) mostly gentle slopes **[1]**

(iii) main rivers flow south **[1]**

(iv) rivers have many tributaries **[1]**

(v) high drainage density **[1]**

More than 1 tick per item = 0.

(d) (i) 368 m **[1]**

(ii) 13–17$^{(0)}$ **[1]**

(iii) south west/south south west **[1]**

(iv) 494613/4 **[1]**

(v) 5000–5200 (m) **[1]**

2 **(a)** area X with diagonal shading, (allow diagonals in either direction) **[1]**

(b) high(er/est) on coast/low(er/est) inland,
high(er/est) in east/low(er/est) in west,
high(er/est) in south/low(er/est) in north,
high(er/est) in south east/low(er/est) in north west,
highest/very high/>900 at Tianjin/Shanghai/Hong Kong/Macau/in cities,
(at least two needed)

For high density, allow figures of 301 (people/km^2) or more.
For low density, allow figures of 300 (people/km^2) or less.

Allow "population" without "density". **[3]**

(c) **(i)** lowland = high(er) density/highland = low(er) density/negative relationship,
dense(r) areas below 1000 m,
sparse(r) areas above 1000/4000 m,

For high density, allow figures of 301 (people/km^2) or more.
For low density, allow figures of 300 (people/km^2) or less. **[2]**

thin(ner) air over 4000 m/high,
low areas developed trade/ports/harbours/fishing,
high areas cold/harsh/extreme/low areas warm/moderate,
high/steep areas transport difficult/inaccessible/remote/isolated/few routes/low/flat areas transport easier/more accessible,
high/steep areas difficult for agriculture/low/flat areas (easy) for agriculture,
high/steep areas difficult to build on/low/flat areas easy to build on **[2]**

3 **(a)** beach,
surf/surfing/white water,
hotel(s)/apartment(s)/villa(s)/resorts,
hill/cliff/mountain scenery/beauty,
hill/cliff/mountain for walking/climbing,
gentle slopes for development,
mountains give shelter,
palm trees = warm/tropical climate **[3]**

(b) Landform Y
deposition/accumulation/build up by sea/waves, (allow deposition by tides)
in sheltered/low(er) energy area,
in bay,
longshore drift,
constructive waves/swash > backwash/weak backwash

Landform Z
deposition/accumulation/build up by wind,
onshore wind/wind blows inland/sand carried inland,
blows/picks up sand from beach,
at low tide,
obstacle/vegetation blocks wind/traps sand,
later development of soil/grey dunes,
stabilised by vegetation/vegetation succession/marram/salt or drought resistant vegetation

Reserve 1 for each landform. **[5]**

4 **(a)** **(i)** volcano label within tolerance **[1]**

(ii) fold mountain label within tolerance **[1]**

(iii) earthquake foci label within tolerance **[1]**

Arrow points/end of lines must be inside the following tolerances:

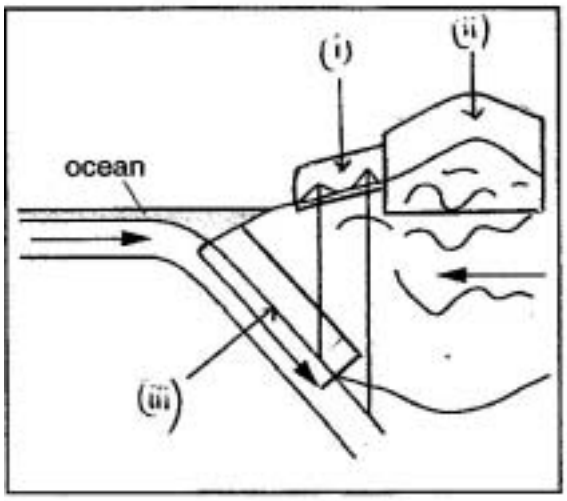

Fig. 6

Labels must be on Fig. 6. Record responses on other Figs as NR.

(b) divergent/constructive **[1]**

(c) **B**
C
E
D
A **[4]**

5 **(a)** **(i)** small scale,
arable

Delete once correct answer for every tick more than two. **[2]**

(ii) vegetables/named vegetable/crops,
Accept best answer. **[1]**

(b) meat/beef,
milk/dairy produce/named dairy product,
hides/leather,
calves/young animals/animals to sell,
manure/dung
Accept best two answers **[2]**

(c) dry ground/low rainfall/drought/arid/desert/lack of water,
loose/light/sandy soil **[1]**

(d) if one type fails the other can be used,
varied/nutritious diet,
supply of fodder,
supply of fuel,
supply of manure,
cattle for prestige only,
different outputs in different seasons,
cattle as draught animals **[2]**

6 **(a)** **(i)** correct plot of 45 thousand million tonnes for China,
(Between and not touching the 44 and 46 lines) **[1]**

(ii) 17 (thousand million tonnes) **[1]**

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

(ii) 6.2 thousand million tonnes **[1]**

(c) sun emits short wave radiation,
short wave radiation passes through the atmosphere/CO_2/greenhouse gases, (reaches surface alone = 0)
Earth emits long wave radiation,
increased absorption/trapping of long wave radiation,
increased re-radiation/long wave radiation back to Earth,
increased temperatures/global warming/Earth hotter/atmosphere hotter (but not upper atmosphere),
*increased evaporation/humidity/rainfall/wind/drought, (*only allow as a consequence of increased temperature)

Allow ultra violet for short wave and infra red for long wave. **[4]**