

## **MARK SCHEME for the May/June 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 May/June 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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- 1 (a) (i) 10m
- (ii) 1 km<sup>2</sup>  
more than one answer = 0
- (b) (i) A/Main A/A3 [1]
- (ii) embankment [1]
- (iii) cultivation/plantation [1]
- (iv) marsh/swamp [1]
- (v) water tank [1]
- (vi) bridge [1]
- (vii) district (boundary) [1]  
more than one answer = 0

(c)

	Pte Moyenne (8495)	La Mecque (8694)	Both these areas	Neither of these areas
coral	✓			
a river or watercourse			✓	
a populated area		✓		
forest				✓
gentle slopes			✓	

more than one tick per row = 0

- (d) hilly/hill/high/mountain/upland (don't extract from place name)  
steep  
cliffs (steep cliffs = 1)  
any height between 400m and 630m (allow 446m as highest point)  
ridge/spur  
col/saddle/pass  
concave slope  
V-shaped valley  
flatter/gentle in south/in 8991/9091/9191/at poultry farm/at sugar plantation  
(As alternative to this line allow "steeper in the north".) [3]
- (e) (i) 2500 – 2650 (metres) [1]
- (ii) N/NNE/NE [1]

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(f) 1 in 2/1 in 2.3/1 in 2.33  
 1:2/1:2.3/1:2.33  
 50%/43%/42.9%/42.85%

Don't allow other expression e.g. "2.3" [1]

2 (a) (i) 8 middle order settlements plotted  
 ignore position, width and shading of bar [1]

(ii) 40  
 more than 1 tick = 0 [1]

(b) (i) sphere of influence to include the nearby village but not touch any of the other towns  
 (ignore other villages and other sphere of influence) [1]

(ii) other nearby settlements/village/town (but not city) to provide services  
 low order services/few services/no high(er) order services  
services have small range/people won't travel far for services  
 poor transport links

allow "goods" or "functions" for "services" [1]

(c) (i) frequent use/everyday needs  
 no need to travel far/they are close/less than 1km/little travel time/cost [1]

(ii) population is small/small settlement/not enough customers  
 these services have a large(r) threshold population/high(er) order services/  
 middle order services [1]

(iii) furniture store  
 airport [1]

(iv) easier transport to Z/poorer transport to A  
 better quality at Z/poorer quality at A  
 more choice/larger store at Z/poorer choice/smaller store at A  
 cheaper prices at Z/more expensive prices at A  
 other services available at Z  
 better reputation at Z/poorer reputation at A

doesn't need to be comparative – could be solely on X or A  
 accept best point [1]

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- 3 (a) Erosion: waterfall  
 notch/V cut by stream/path cut by stream (allow other expressions)  
 plunge pool  
 undercut  
 stepped profile (allow terraced)  
 valley at top of photo  
 exposed rocks/lack of soil/lack of vegetation
- Weathering: harder layers stand out/bedding planes opened/cracks wide(ened)  
 vegetation growing in cracks/in rocks/on cliff (not just on rocks)/  
 vegetation shows biological/chemical weathering  
fallen/disturbed/loose blocks/boulders/rocks/stones/slabs/layers
- reserve one mark for each section  
 no transfer between sections [4]
- (b) (i) boulders/large rocks/large stones  
 different sizes/large and small  
 rounded/smooth  
 red/orange/colour variation/coloured altered (but not black)  
 joints/cracks  
 layers peel/onion skin effect
- don't allow points clearly linked to erosion [3]
- (iii) exfoliation  
 freeze-thaw/frost shattering
- any chemical process spoils the answer [1]
- 4 (a) (i) there are active volcanoes in Africa, Asia, Europe, North America and South America [1]
- (ii) there are active volcanoes close to most coastlines of the Pacific Ocean [1]
- (iii) most active volcanoes are close to plate boundaries [1]
- (b) Laki: plates diverge/constructive margin  
 hotspot/hot area within mantle  
 melting/rising magma/magma escapes
- All others: plates converge/destructive margin  
 subduction (allow if it is the wrong plate)  
 melting/rising magma/magma escapes
- If volcano chosen not from Fig. 6 MAX 1 – don't allow the first point [2]



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- (ii) Plough horizontally across the slope of the hillside  
prevent water from flowing/prevent runoff/allow water to sink in
- (iii) Grow a different crop on each plot for the first three years  
retain/replace soil nutrients/minerals  
different crops use minerals  
maintain soil structure/humus/organic content [1]
- (iv) Fence the land and keep animals away  
will prevent animals grazing until soil is bare/prevent overgrazing  
prevent removal of protective vegetation  
animals trample/hooves/movement/damage roots  
old crop will maintain soil structure/minerals/humus/organic content [1]
- (v) Allow cattle to graze on the remains of the crop after harvest  
dung will maintain the soil structure/humus/organic content  
dung will replace minerals/nutrients  
(for “soil structure” allow phrases like “keeps soil together”) [1]