CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 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.

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1 **(a)** **(i)** other, [1]

    (ii) dam, [1]

    (iii) dip tank, [1]

    (iv) 1411 <u>metres</u>, [1]

    (v) reservoir/building(s), (built-up, settlement = 0) [1]

        If more than one feature given and one is wrong = 0

(b)

	Area in Fig. 2A	Area in Fig. 2B	Both these areas	Neither of these areas
flat land		✓		
steep land	✓			
land over 1500 m	✓			
bush			✓	
tarred road				✓

More than one tick per row = 0, but for bush allow 3 ticks in columns 1, 2 and 3, or two ticks in columns 1 and 2. [5]

(c) **(i)** narrow, (small = 0)
variable width,
flows west,
lake,
tributary/confluence (singular or plural),
meanders/bends etc.,
rapids, (rapid waterfall = 0)
causeway,
bridge,
gentle gradient/<u>on</u> a gentle slope,
braiding/island/splits and re-joins, [4]

    (ii) narrow/small,
0–400 m (allow within tolerance),
wide(r) in west/downstream, [1]

(d) **(i)** 3200 – 3400 (metres), [1]

    (ii) south east, [1]

    (iii) 145° – 149°, [1]

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(e) 586704/5 = 2,
Correct square (5870) = 1, [2]

2 (a) (i) settlements in <u>order</u>/<u>arrangement</u>/<u>rank</u>/<u>organisation</u> of importance/size/services,
Allow other valid expressions of the terms underlined. [1]

(ii) largest/larger population,
most/more services/stores/primary schools, [1]

Needs to be comparative.

(iii) more services/named services than expected/for its population/than Settlement E, [1]

(b) (i) secondary school, [1]

(ii) 601 – 1400, [1]

(c) (i) settlement C plotted with 5000 population and 11 convenience stores, [1]

(Allow without the C)

(ii) positive correlation,
direct relationship,
as one increases the other increases, [1]

(d) larger number of low order settlements/smaller number of high order settlements,
Must be comparative. [1]

3 (a) <u>Winter</u>: frozen/no flow/flow beneath ice,

<u>Summer</u>: flow/slow flow/fast flow, [2]

(b) wide,
gentle gradient,
meander/bend,
gentle/shallow banks,
artificial/brick/stone/blocks/concrete banks,
bridge,
floats/buoys/net, [3]

(c) erosion,
erosion on outer/right bank, (= 2)
fast(er) flow on right bank,
protect buildings/city,
allow <u>access</u> to river (for boating, fishing etc.),
promenade/footpath/pavement,
aesthetic appearance, [3]

4 (a) start over oceans/seas,
move towards land,
curved paths,

move NW in north,
move SW in south,
If neither of the above two points are awarded, allow 1 mark for <u>either</u>:
    move W, <u>or</u>
    move NW and SW,
Allow if expressed as from the east etc.

move away from Equator/towards Tropic<u>s</u>,
<u>move north</u> in Indian Ocean/<u>move north</u> located,   [3]

(b) <u>Rainfall</u>
stops, "little or no rain" = 1
higher <u>before</u> eye lower <u>after</u> eye (increases then decreases = 0). Allow by figures, such as 20 mm before and 8 mm after, or by 12 mm.

<u>Wind direction</u>
changes from NW to SE/opposite direction,
becomes calm in eye,

<u>Pressure</u>
falls/low/falls then rises,
(to) <u>below</u> 970 mb or reasonable figure below 970 mb,

<u>Temperature</u>
rises/high,
(to) 30 °C/(to) 31 °C/by 5 °C/by 6 °C,

Reserve one mark for each element.
For points shown by figures correct unit must be given at least once.   [5]

5 (a) yes/vehicles are a source,

NO_2 found in urban areas/built-up areas/cities etc., (allow around urban areas) Not just a single city.
NO_2 found in London/Birmingham/Liverpool/Leeds/Manchester,
many/more cars/traffic congestion in urban areas,

in lines joining urban areas/along roads/lines where vehicles travel,   [4]

    (b) (i) no/little/some relationship,

most/higher/mainly in rural areas/most/higher/mainly outside urban areas/<u>often</u> not found in urban areas, Not just a single area.
found next to urban areas/to east of urban areas/around urban areas,
found in <u>some</u> urban areas,
found in/close to Liverpool/Edinburgh, Also allow Manchester/Leeds because of map labels.

low (allow none) in <u>some</u> urban areas,
low (allow none) in Birmingham/Glasgow/Cardiff/London/Belfast,   [3]

    (ii) power stations,
burning fossil fuels/coal/oil/gas/other named material,
factories/manufacturing industry/heavy industry,   [1]

6 (a) (i) thick ash/most ash/30 cm of ash,
pyroclastic flows,
pyroclastic flows very destructive/dangerous/cause death,
near/4 km from volcano/summit,   [2]

    (ii) <u>Advantage:</u>
volcano a tourist attraction/tourism benefited,

<u>Disadvantages:</u>
parts of the island an Exclusion Zone/evacuated,
destruction of property/airport/hotel/hotels close, (Allow if expressed in future)
tourists deterred by volcano,

Advantage = 1   Disadvantage = 1   [2]

    (iii) commercial activity (moved to north),
government functions (moved to the north),
jobs (in north),
new airport/airport closer,   [2]

(b) subduction/description of subduction process,
beneath Montserrat,
melting,
island arc,   [2]