

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0680 ENVIRONMENTAL MANAGEMENT

0680/12

Paper 1, 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 2014 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

Page 2	Mark Scheme	Syllabus	Paper
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- 1 (a) the oak tree is a plant and makes its own food using energy from sunlight/by photosynthesis;
the caterpillar gets its food/energy from the oak tree;
the insect-eating bird gets its food/energy from the caterpillar;
woodlice get their food/energy from dead leaves; [4]
- (b) (i) they have more;
species of living things;
variation amongst living things;
habitats;
than most other places; [2]
- (ii) deforestation;
urbanisation;
pollution/named pollutant; [2]
- (iii) plants may contain undiscovered medicines;
wild plants may do better in new climates;
wild animals may give better pest control;
animals and plants provide ecosystem services; [2]
- 2 (a) (i) A – magma chamber;
B – magma;
C – vent;
D – lava; [2]
- (ii) two plates meeting;
it is a subduction zone;
so one plate goes under the other and melts to create lava;
which builds up to form mountain/volcano; [3]
- (b) (i) *a farmer:*
buried their land;
added nutrients to their land;
- a taxi driver:*
reduced tourism so reduced business;
increased tourism to see volcano so increased business;
- an hotel owner:*
reduced tourism so reduced business;
increased tourism to see volcano so increased business; [3]
- (ii) earthquakes widespread;
earthquakes not predictable/volcanoes predictable;
volcanoes in isolated places; [2]

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- 3 (a)** the Sun is overhead at the Equator whereas it is a slanting angle at the poles;
so one square metre at the Equator receives more sunshine than one square metre at the poles;
has to pass through more atmosphere at the poles than at the Equator;
so more heat is absorbed and scattered at the poles;
snow is much more reflective than trees and vegetation; [3]
- (b) (i)** equatorial tropical:
croplands;
because there is plenty of rainfall;

tropical savannah;
grazing lands;
because many animals especially sheep and goats can exist on poor vegetation; [4]
- (ii)** water;
irrigation;
centre pivot; [2]
- (iii)** fertiliser / minerals / air; [1]
- 4 (a) (i)** sedimentary;
pressure;
erosion;
sediment;
sedimentary; [2]
- (ii)** manufacture of steel;
manufacture of cement and concrete;
as a fertiliser; [3]
- Credit valid alternatives.*
- (b) (i)** to produce energy the coal has to be burnt;
releasing carbon dioxide;
ref. greenhouse gas;
which may cause global warming;
ref. SO₂;
acid rain; [3]
- (ii)** turn off lights / electrical appliances;
install insulation;
walk / cycle / use public transport / car share; [2]

Page 4	Mark Scheme	Syllabus	Paper
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- 5 (a) (i) the Sun; [1]
- (ii) A – evaporation;
B – precipitation;
C – infiltration; [2]
- (iii) arrows and labels both needed;
arrows in correct direction and position;
e.g. transportation from tree, interception towards tree, run-off along ground surface. [2]
- (iv) rainwater harvesting; [1]
- (b) (i) 6 labels added correctly;;
Six correct for two marks. Five correct for one mark.
WC
personal washing
laundry
drinking / dishwashing
drinking / dishwashing
car washing [2]
- (ii) WC flushing / clothes washing;
water-related diseases cannot be transmitted; [2]
- 6 (a) (i) plot;; correct axis label; [3]
- (ii) education of all;
but especially women;
better infant survival;
via better nutrition;
better health care;
pension schemes; [3]
- (b) air travel, will not help people still travel to destination;
pollution, still some from travel;
ecotourists more likely to engage in recycling schemes etc.;
trampling, likely to be concerned;
guides will enforce rules on this;
poor jobs for locals, likely to improve with tourist demands for good guides etc.,
destruction of cultures, likely to be reduced as ecotourists have interest and sympathy;
pressure on water, not likely to help as still need same amount water as traditional
tourists; [4]

[Total: 60]