## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**International General Certificate of Secondary Education** 

## MARK SCHEME for the May/June 2009 question paper for the guidance of teachers

## 0680 ENVIRONMENTAL MANAGEMENT

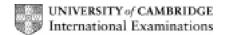
**0680/01** Paper 1, maximum raw mark 60

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

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CIE is publishing the mark schemes for the May/June 2009 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



	Page 2	2	Mark Scheme: Teachers' version	Syllabus	Paper
			IGCSE – May/June 2009 06		01
1	(a) (i)	air/a	tmosphere/at the top		[1]
	(ii)	2 – r 3 – p	decay/decomposition/respiration respiration photosynthesis death 4/3 = 2, 1/2 = 1		[2]
	(iii)	any : burn car u less defo	e gain of carbon dioxide to atmosphere:  2  ling of fossil fuels; use/power station use/eq.;; loss form atmosphere: linestation/eq.; photosynthesis;		[3]
	(b) (i)	carb traps	oon dioxide builds up/eq.; oon dioxide is greenhouse gas/causes greenhouse es s heat; es (world) temp rise/causes global warming/eq.;	effect/eq.;	[3]
	(ii)	any from; walk/public transport/bike/turn off lights when not in use/wash at lower temp/tur down/use hybrid car/high mileage car/campaign/planting trees (but not commercial or large scale tree planting ventures/not replacing goods/bring pre authorities (R) points to do with laws as Q about people (R) afforestation on its own			
2	(a) (i) (ii)	emp colle	n site/away from interference; r of buildings/other overhangs/avoiding runoff (eq.) ity at known time one day; ect and read off on scale/eq.; ame time next day/regular checking;	from trees/roofs/eq.	[2]
	(b) (i)	(A) rong rain	measure daily rise for one mark; ain J/J/A; rest of year/named months		[2]
		•	season/wet season; iths quoted;		[2]
	(ii)	any AVP	ref to irrigation of suitable kind/eq.;		[1]
	(iii)		tion of fertilisers/use of pesticide/herbicide/ etically improved varieties/rotation		[1]

1 6	age 3			
		IGCSE – May/June 2009 0680	01	
(c)	e.g sug cott tree leg lave app	opropriate crop; use g. gar cane; biofuel; otton/AVP; textiles; any correct ees; wood gume; green manure vender/AVP; scent; opropriate crop; medicine; VP; AVP		
(a)	(i)	A – rainfall/precipitation; B – infiltration/percolation; C – (evapo)transpiration;	ro	
		D – evaporation; $4 = 3$ , $2/3 = 2$ , $1 = 1$	[3]	
	(ii)	any 4 from: 12, 13, 3, 15, 16, 7, 5; 3/4 = 2, 1/2 = 1	[2]	
(b)	(i)	mercury/lead/sewage/faeces/urine/heat/fertiliser/pesticides/herbicides/brain damage/correct named/death of food fish/AVP	/AVP [2	
	(ii)	water-based (bilharzia); waterborne (typhoid, cholera); waterbred (malaria) (R) diarrhea	[1]	
	(iii)	e.g. malaria  – oil on water; stops fly/eq. larvae  – drain; stop flies breeding;  – pesticides; kill fly/eq.  – prophylaxis/eq.; kills parasite/eq.  – repellant; stops flies biting;  – nets; stop flies biting;		
		bilharzia – molluscicide/described; kills snails – avoid entering water; (to) avoid snails		
		typhoid/cholera  – treat water to kill organisms causing it/eq.;		
		method/chlorination/eq./boiling water before use		
		better sewage disposal; use well water;		

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		IGCSE – May/June 2009	0680	01
(a) (i)	34			[1]
(ii)	60			[1]
(iii)	impr mari clima incre dam com AVP			
	any	2 two named explained		[4]
(b) (i)	quot restr restr fish sma fish	icted seasons; icted range/zones; types/species/size restricted; ller net; farming; taxes;		[2]
(ii)	can'			
		and irresistible;		[2]

Mark Scheme: Teachers' version

Syllabus

Paper

Page 4

4

Page !		ge 5	,	Mark Scheme: Teachers' version	Syllabus	Paper	
				IGCSE – May/June 2009	0680	01	
5	(a)	(i)	100 - (3 + 3 + 1 + 60) = 33% (2 for right answer even if no working)		[2]		
		(ii)	-	ring what you and your family need to eat for the yealeable surplus	ear;	[2]	
	(b)	(i)	warn wate killing addit	nane output from cattle; ning/climate change, OWTTE; er pollution from cattle faeces; g' rivers/streams/ ponds etc.; tion of faeces/eq.; oves soil;		[2]	
		(ii)	repla	anting/afforestation/quotas/selective logging/wood sot harvest near rivers etc.	substitutes/AVP	[1]	
		(iii)	enfor choo build selec	it/laws/make it illegal; rcement agency/fines; ese moving eqpt. for low impact or ground pressure I roads as narrow as possible; ctive logging; cate consumers;	(caterpillars etc.);	[3]	
6	(a)	(i)		ore: Asia ber: S. America Asia;		[3]	
		(ii)	sulph salt;	te/phosphate/potash; fertiliser nur; making acids; food industry stone type minerals; jewellery/fashion;		[2]	
	(b)	(i)		cical injury/lung disease/silicosis/low life expectancy on dioxide poisoning/AVP;	//death/	[1]	
		(ii)	dust	pollution/noise pollution/habitat destruction/loss of	biodiversity (eq.)/AV	P [1]	
	(c)			ion; landfill; planting; appropriate species; fertilising lakes; habitat creation;	; landscaping;	[3]	