UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

0680 ENVIRONMENTAL MANAGEMENT

0680/13

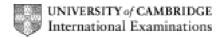
Paper 1, maximum raw mark 60

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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1	(a)	(i)	C;	[1]
		(ii)	A peat; B time and pressure; C time and pressure;	[3]
	(b)	(i)	miners collapse of tunnel; fire due to gases from coal; poisoning from coal gases/silicosis; breathing problems; flooding; environment spoil pollutes ground and water around mine; carbon dioxide/owtte when burnt; landscape destruction/visual pollution (open cast);	[max 2]
	(b)	(ii)	wind; hep; geothermal; nuclear; tidal; wave; biofuels;	[max 2]
2	(a)	(i)	N and S of tropics/equator; Africa; S Asia; W S America; AVP (relevant countries named);	[max 2]
		(ii)	sun; vapour; evaporation; condenses; clouds; rain; snow (owtte); sea/ocean; half each/round down	[max 4]
	(b)	(i)	Peru	[1]
		(ii)	Peru	[1]
		(iii)	quotas/seasons/net size; relevant explanation;	[2]

Mark Scheme: Teachers' version IGCSE – October/November 2010

Syllabus 0680 Paper 13

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Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
	IGCSF - October/November 2010	0680	13

3 (a) (i) (abs = 18) + (reflection = 32) = 50%; earth abs = 100–50 % = 50%; [2]

(ii) carbon dioxide; methane; water vapour;

(b) (i) fertilisers – get into water/rivers/streams;

[max 2]

- (b) (i) diagram showing IR radiation leaving Earth surface; but being scattered or in some way not allowed to leave by gh gases; [2]
 - (ii) walk/cycle/reduce car use;
 public transport/take more people for less money per head;
 car sharing;
 use biofuels in cars;
 carbon neutral (idea);

 [4]
- 4 (a) (i) A: ammonia/ammonium; B: nitrate; [2]
 - (ii) carbon dioxide;
 water;
 any relevant minerals other than N;; [max 2]
 - cause algal growth;
 algae die;
 rot and use up oxygen;
 fish suffocate;
 eutrophication;
 [max 2]

pesticides – get into food chains;
get amplified (owtte);
kill or harm those at top of chain;
kills harmless/valuable species;
(idea of poisoning humans for ONE)

[max 2]

(ii) biological control;example given;principle described (e.g. predator/parasite/disease introduced);[max 2]

	Page 4			Mark Scheme: Teachers' version	Syllabus	Paper
				IGCSE – October/November 2010 0680		13
5	(a)	(i)	500-	–600 million;		[1]
		(ii)	1200	00/300; = 40;		[2]
	(b)	(i)	WA	L: loss/erosion/depletion of nutrients/fertility lost; TER: polluted/named pollutant/increasing scarcity; SETATION: loss/removal/killing;		[3]
		(ii)	pens decr	er educated women; have less children; sion schemes; mean think do not need so many chil reased infant mortality; means do not have more to i o 2 for each	_	ı [4]
6	(a)	(i)	C; A; B;			[3]
		(ii)	,	thering;		[1]
	(b)	(i)	(wat	ter) erosion;		[1]
		(ii)	B: te	ree planting/afforestation; erracing; ontour ploughing; helter belt; 1/2 each round down		[2]
		(iii)	in ph farm	oval of trees stops them taking in CO ₂ ; notosynthesis; n machinery; s out CO ₂ burning fossil fuels;		[max 3]