

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

International General Certificate of Secondary Education

**MARK SCHEME for the June 2005 question paper**

**0680 ENVIRONMENTAL MANAGEMENT**

**0680/04**

**Paper 4 (Alternative to Coursework), maximum mark 60**

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

- CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the June 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

**Grade thresholds** for Syllabus 0680 (Environmental Management) in the June 2005 examination.

	maximum mark available	minimum mark required for grade:			
		A	C	E	F
Component 4	60	45	31	22	17

The threshold (minimum mark) for B is set halfway between those for Grades A and C.  
The threshold (minimum mark) for D is set halfway between those for Grades C and E.  
The threshold (minimum mark) for G is set as many marks below the F threshold as the E threshold is above it.

Grade A\* does not exist at the level of an individual component.

June 2005

IGCSE

MARK SCHEME

MAXIMUM MARK: 60

SYLLABUS/COMPONENT: 0680/04

ENVIRONMENTAL MANAGEMENT  
(Alternative to Coursework)

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	ENVIRONMENTAL MANAGEMENT – June 2005	0680

- 1 (a) (i) May; [1]
- (ii) April December;  
July September; [2]
- (iii) June; [1]
- (b) (i) Farmers - ref to crop damage/soil erosion/best planting time/e.g. AVP; [1]
- (ii) In city - flooding/damage to stored foods/e.g., AVP such as medical precautions; [2]
- (c) (i) 10; well spaced/all along road; [2]
- (ii) Easy to empty/good access/eq; [1]
- (iii) Water runs through settlement/flooding; pathogens/eq from waste bin; spread of pathogens; from sewage; correct ref to malaria; AVP; [2]
- (d) (i) SO<sub>2</sub>; coal/from factories;  
NO<sub>x</sub>; car exhaust;  
CO; open fires/incomplete combustion/cars;  
[R a source if not related to a correct gas. R CO<sub>2</sub>]. [4]
- (ii) Girls stay in cooking/eq; [1]
- (iii) Cleaner fuel in city/in cars/use biogas/move factories (to edge of city);  
R moving people. [1]
- (e) (i) Open fires; overcrowding; shelters made from flammable material;  
AVP; [2]
- (ii) Sewage removal; electricity; rubbish removal; schools;  
clinics/hospitals; AVP; [2]
- (iii) Drinking water contaminated; a valid reason; AVP; [2]
- 2 (a) (i) Cash/crop/eq; [1]
- (ii) Sprayed less often; [1]
- (iii) Three good features such as colour/pest resistant/easy to pick/fast  
growth/AVP/AVP; (Note all answers must be relevant to farmers or  
their family) then each point qualified;;; [A cost of seed if qualified]. [4]
- (b) (i) So soil/climate/planting density/fertiliser/AVP - the same;; [2]

Page 2	Mark Scheme	Syllabus
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- (ii) Ref to a random method/or described;  
A throw quadrat.
- (c) (i) Ref to gloves/masks/washing hands/do not eat/protective clothing. [1]
- (ii) 230 46; [1]
- (iii)  $46/230 \times 100 = 20\%$ ; [Allow consequential error from (ii)];. [2]
- (iv) All plots correct;; one mistake; [2]
- (v) Infested bolls increase as total bolls increase; [1]
- (d) Three good questions about growing cotton from the farmers perspective;;; layout; [4]
- 3 (a) (i) To reduce soil erosion/reduce floods; maintain/improve soil fertility; more favourable climate; forest products in the future; AVP;; (AVP's such as refs living standard and employment). [3]
- (ii) Medicinal plants; disturb/hunt wildlife/macques; AVP; Valid explanation (such as altering food chain); [2]
- (b) (i) No value - not good food; cannot sell skins; too difficult to find; AVP;; Value - may allow ecotourism; religious view; AVP;; [3]
- (c) Ideas such as:  
Relating to humans
- (i) Dust blows into village; causes disease/named disease/condition; water poisoned;
- Relating to environment
- (ii) Explosions disturb wildlife; water courses poisoned; AVP;; [4]
- (d) Five valid points such as:
- control entry to shola;
  - start limited ecotourism;
  - mine magnesium away from water; and village/shoal;
  - crop rotation;
  - high value cash crop;
  - high protein animal;
  - intercropping in managed forest;
  - maintain supply of wood/eq;
  - family planning;
  - AVP;;;
- [5]