UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2010 question paper

for the guidance of teachers

0680 ENVIRONMENTAL MANAGEMENT

0680/11 Paper 11, maximum raw mark 60

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International Examinations

1 (a) (i) evaporates;
cools as rises/condenses;
turns back into water (or ice); [2]

(ii) polluted/not clean/AW;
(waterborne) diseases/people get ill/AW;
two examples of pollutants; [3]

(iii) chlorination; kills organisms;
desalination; gets rid of salt/makes it drinkable;
filtration; gets rid of particles; any one correct method and description [2]

(b) coastal/continental plate;
shallow water;
high nutrients;
thus plenty of food for fish; [any 3]
(A) for one mark, where cold and warm currents meet

2 (a) (i) 1600 × 2.5; = 4000 RM; [2]

(ii) breeding; improved yield/flavour etc.;
pesticides; kill pests which reduce yield;
herbicides; kill weeds which compete;
GM; improve yield/flavour etc.;
irrigation; increase yield;
fertilizers; increase yield; [4]
AVP

(iii) a cash crop is grown for money; not to provide grower or others with adequate food;
or converse arguments [2]

(b) fibres; medicines; biofuels/use as fuel; any use of wood; [2]

3 (a) (i) nitrogen oxides (or any specific/correct); sulphur dioxide; (NOTE allow formulae if correct) [2]

(ii) factories/power stations; cars (eq); [2]

(iii) (S emissions from) volcanoes/bacterial action soil/vegetation/lightning; [1]

(b) (i) because fossil fuel burning gives off the gases; alternatives do not; [2]

(ii) turn off lights; walk/cycle/instead of car; car share; hybrid cars
insulate house (any method); AVP; any three [3]

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4 **(a)** **(i)** leaves, flies, glow worms; [3]
arrows in correct direction;
NOTE max two if pyramid drawn

(ii) predator; [1]

(b) **(i)** 1. stop them getting food; by causing lights to go off;
2. water pollution; reduces food for flies that glow worms eat;
3. people trample glow worm habitat; kill worms;
4. provide boardwalk/path; with explanatory signage; [4]
any two ways with suitable descriptions

(ii) 1. ban torch use; explain why with leaflet/boards;
2. ban water entry; leaflets/boards/fencing;
3. ban; leaflets/boards/fencing;
4. hire out night vision equipment; [2]
any one way that has been described

5 **(a)** weathered; rock; [2]

(b) **(i)** plants; organic; organic; water; rocks; clay; little
All 7 for 4
5 or 6 for 3
3 or 4 for 2
1 or 2 for 1 [4]

(ii) deforestation; afforest/conserve/avp;
ploughing; contour plough;
overgrazing; rotate animals;
overcultivate; rotate
any two [4]

6 **(a)** **(i)** 1980 (±1); [1]

(ii) 1993; –5.2%; [2]

(iii) natural fluctuations to 1980; release of CFCs from 1980; gives rise to chlorine; which destroys ozone; levels fall; Montreal protocol – reference to banning of CFCs; levels then rise after 1994; [4]
(NOTE Max 2 for just descriptions)

(b) mutation; (skin) cancer – reject skin damage; cataracts – accept eye damage; immune system depression; sunburn; any three [3]

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