

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

MARK SCHEME for the November 2005 question paper

0680 ENVIRONMENTAL MANAGEMENT

0680/01

**Paper 1 (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*.

The minimum marks in these components needed for various grades were previously published with these mark schemes, but are now instead included in the *Report on the Examination* for this session.

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

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



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- 1 (a) (i) Sub-Saharan Africa [1]
- (ii) Direct relationship or described (either way round) [1]
- (iii) Middle East OR South East Asia [1]
- (b) (i) birth rate; death rate; infant mortality; calorie intake; car/other 'luxury' item ownership; people per doctor; access to clean water; child literacy or equivalent (ignore direction in all cases); [2]
- (ii) quality of life reduced (or a relevant example given); because of more mouths to feed/overcrowding/lack of housing/less jobs
OR
quality of life increased (or a relevant example given); because increased demand stimulating production! helps if country is underpopulated etc. [2]
- (c) The likely approach is that present world trade conditions are unfair to developing countries , and that a liberalisation/freeing up of trade is like to level up the playing field.
Credit examples:
rich(er) should pay higher/fairer price to poor(er); for goods/services; to increase/wealth more of answers generally to get max 1 [3]
- 2 (a) (i) 4 correct for 2, 2/3 correct for 1, 1 or 0 correct, 0
Do not need shading if right way round, but if not which is which must be made clear in some way [2]
- (ii) Better access in urban areas/vice versa for 1; [1]
- More finance/money in urban/urban more developed/more people;
Rich people in urban help to ensure clean water;
OR
Answer in terms of height of bars rural vs urban;
Further detail from graph (e.g. correct figures or derived figures (e.g. 'more than double') quoted [2]
- (b) many common diseases are water-borne;
correct eg;
salmonella/diarrhoea/cholera/dysentery/typhoid/ [2]
® malaria/dengue/bilharzias other water bred diseases
- (c) increased awareness/education; so people do not contaminate; with human/human created waste controls on pollution; e.g.s; development
- boiling water; kills germs; avoids disease
- purifying; boiling; filtering; kills germs; avoids disease
- Village pump; pipes; clean water
- Money; for dams or similar; pipe clean water
- MUST develop one strategy, but this can be interpreted at different levels as shown in the examples above, e.g boiling can be a strategy and then developed as shown but purifying can also be and then filtering and boiling are the development [3]

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- 3 (a) (i)** near/north of etc. but NOT on/equator; near/on tropics; inland/non coastal/away from coast; deserts/savanna/desert edge/semi desert; any 2 [2]
- (ii)** January heavy rain; washes soil away
- July soil dry; high winds blow away; [3]
- (b)** overuse of the land/overgrazing/overstocking/deforestation/loss of minerals/ploughing/monoculture/using artificial fertilisers; relevant explanation [2]
- (c)** planting shelter belts of trees between fields; would have the effect of reducing the force of the wind; roots of the trees would hold the soil together contour ploughing; benefit;; crop rotation; benefit;; grazing rotation; benefit;; [3]
- 4 (a) (i)** A Photosynthesis
B Respiration [2]
- (b) (i)** It would increase/rise etc. owtte [1]
- (ii)** world temps would rise; carbon dioxide traps heat/long wave radiation/greenhouse effect sea level would rise/coastal flooding ® flooding unqualified; ice caps melting/expansion of water [4]
- (c)** habitat loss/food shortage/reduced diversity (or equiv.)/reduced abundance for replanting/afforestation ideas; intercropping type ideas; set up parks/conservation areas etc. any 2 for expansion of any one can also get 3rd mark [2]
- 5 (a) (i)** crust; mantle; core [3]
- (ii)** crust/A [1]
- (iii)** ANY two correct for...allow fossil fuel derived fuels (petrol, diesel etc.) [1]
- (b) (i)** acid rain; one relevant effect, or smog; effect, or land degradation in getting fuel; effect habitat loss; development, or oil slick; effects, or health; development or [2]

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- (ii) geothermal;
hot water used to heat houses/eq.;
cold water pumped down and heated;
generate steam;
turns turbine;
generates electricity;
pylons carry same; any 2 [3]

Question total [10]

- 6 (a)** threatened mangrove/wetland areas;
hotels built;
sand quarried from the beaches;
trees felled;
dunes levelled;
sewage discharge ;
Destruction of habitat/fragile ecology [3]

- (b) (i)** The practice of touring natural habitats; in a manner meant to minimise ecological impact; benefit local economy [2]

- (ii)** creation of National Parks;
creation of wildlife reserves;
make wildlife (owtte) the reason for tourism [2]

- (c) WWF**
money raising; education; awareness; influence govts; protection of qualified (e.g endangered) wildlife/animals/habitats etc.

IUCN
Collation of knowledge; publication of threatened species lists; influence governments

CITES
Controls trade between nations; of animals; plants

UNEP

AsIUCN

- May accept similar points to WWF for IUCN or UNEP but CITES more specific. [3]