

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
International General Certificate of Secondary Education

**MARK SCHEME for the October/November 2008 question paper**

**0680 ENVIRONMENTAL MANAGEMENT**

**0680/04**

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

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## INDIA

- 1 (a) (i) 1050; 350;
- (ii) lower labour costs; less regulation; AVP; [1]
- (iii) metals recycled; less mining needed/eq; less energy used to produce metals; [2]
- (iv) dangerous work/no safety procedures; fall of ship; e.g. of accident; [2]
- (b) (i) site 2; [1]
- (ii) site 1; [1]
- (iii) highest reading on site 3 but this is not most polluted/eq; [1]
- (iv) organotin, PAH's;; [2]
- (v) tired; loss of weight; cancers; poor coordination/any nervous disorder; [2]
- (c) (i) orientation; scales; plots with key;; [4]
- (ii) both have peak nearest ships/ both drop away further from ships; slower decline towards G/eq; [1]
- (iii) organotin, it is more soluble in water; [1]
- (d) (i) poisons/toxins pass through food chains; ref to bioaccumulation/ biomagnification; high concs are lethal; [2]
- (ii) short term profit/eq; [1]
- (iii) build dry docks; more samples taken; fine heavy polluters; AVP; [2]
- 2 (a) (i) move to slum – all they can afford; find work there; AVP; [2]
- (ii) lots of industry inside slum; lots of low paid jobs in city; [1]
- (iii) yellow fever/dengue fever/malaria spread by mosquito; cholera/typhoid spread by water; [2]
- (iv) sewage floods slum spreading bacteria into houses; drinking water contaminated; bacteria can multiply in warm wet conditions; AVP; [2]
- (b) (i) people will demand compensation; city does not have alternative land; city would have to provide permanent buildings; [2]
- (ii) lack of trust; interfere with way of life; might have to pay taxes; AVP; [2]
- (iii) stay – only earn enough for basic needs; too expensive to live out/wages too low to live out; AVP; [2]

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- 3 (a) (i)** only one sample point; not enough time; only counting/not weighing; would give different answer each time; [1]
- (ii)** longer time; more sample points weighing; [1]
- (iii)** all plastic and cardboard weighed/eq; AVP; [1]
- (b)**  $150 + 375 = 525$ ; [2]
- (c) (i)** no more land fill sites/existing ones full; burning releases toxic fumes; causes breathing problems; AVP; [2]
- (ii)** bacterial/microbial decomposition/respiration; to minerals water and carbon dioxide; role of worms; ref to root absorption; [2]
- (iii)** Advantages – not transport cost in time/fuel; less in landfill/to burn; AVP; Disadvantages – liable to flood during monsoon; could cause illness; attract stray animals; AVP; [max 3]
- (d) (i)** four X two in shade; two in open; [2]
- (ii)** check thermometer read the same; take readings at the same time; thermometers same distance from ground/comment on position; no thermometer in direct sunshine; AVP; [2]
- (iii)** table drawn; enough spaces; headings for columns/rows; [3]
- (e)** trees have cooling effect; sustainable; no cost of equipment; cost of electricity; pollution saving; carbon neutral; [2]