



## **QUESTION PAPER**

### **Associate Open Book Assessment – October 2005**

***Please read the Instructions to Candidates prior to starting this paper.***

**Answer ALL questions.**

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### **QUESTION 1**

- A.** A voluntary energy labelling scheme has been introduced recently by the motor industry. Explain this labelling scheme and the reasons for its introduction. (4 marks)
- B.** Describe the benefits of any eco-labelling scheme. (6 marks)

### **QUESTION 2**

- A.** Briefly describe the main anthropogenic and natural causes of flooding. (3 marks)
- B.** Recent proposals for building new homes in the south east of the UK are estimated at 30,000 a year between 2006 and 2026. Appropriate planning is needed at an early stage to ensure that land is set aside to accommodate future flood risk. Identify the main guidance that addresses planning, development and flood risk assessment in the UK and outline the main functions of the guidance and forthcoming proposed amendments. (7 marks)

### **QUESTION 3**

You are Environmental Manager acting on behalf of a developer. An Environmental Management System is in place and you would like to evaluate whether environmental performance has improved over the last year.

- A.** Describe how you would evaluate environmental performance. (4 marks)
- B.** Provide four examples of measures that could be utilised in order to ensure that continuing environmental performance is achieved and the reasons for choosing such measures. (6 marks)

### **QUESTION 4**

- A.** Describe how phosphorous is used by plants and cite the parts of the animal body it is a constituent of. (6 marks)
- B.** Describe the transfer of phosphorous from the environment (water, land and air) through the different trophic levels. Use a flow diagram and a written description. Include a description of the role of autotrophs and heterotrophs (including fungi), decomposers, marine birds and at least one negative effect on the environment caused by human intervention. (4 marks)

### **QUESTION 5**

A new sports stadium has been proposed for development on a 12 hectare site on the outskirts of a major city.

- A.** Outline the processes and steps involved in carrying out an Environmental Impact Assessment (EIA) for this development. (5 marks)
- B.** Noise is an issue that may be affected by development. List the most significant potential noise impacts during any development. Suggest one method of evaluating the noise and recommend a hierarchy of mitigation measures. (5 marks)

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### **QUESTION 6**

You have been tasked with conducting solid waste audits for your company's suppliers.

- A. Prepare a checklist of questions for use when you visit the suppliers. (5 marks)
- B. Identify the evidence you would look for to demonstrate compliance. (5 marks)

### **QUESTION 7**

You are the Environmental Manager of a business which has set itself an objective to improve biodiversity on site. The land in question is adjacent to and partially surrounded by a rural landscape. Briefly describe a generic process that you could follow to meet this objective. (A diagram or table may be used). (10 marks)

### **QUESTION 8**

You are responsible for air quality monitoring in a Local Authority.

- A. Explain why reports of high Nitrogen Dioxide levels in your area are of concern and identify current and future legislation for the control of Nitrogen Dioxide. (5 marks)
- B. Explain the effects of Nitrogen Dioxide on human health and the environment. (5 marks)

### **QUESTION 9**

BS8555:2003 (*Environmental management systems – Guide to the phased implementation of an environmental management system including the use of environmental performance evaluation*) is the latest environmental management standard to be published. Describe how it differentiates from other environmental management standards and list the advantages and disadvantages of this approach. (10 marks)

(Note: a copy of the standard is not required to answer this question)

### **QUESTION 10**

- A. Describe at least three negative effects that the built environment may have on the natural environment. (3 points)
- B. Describe how roofs planted with vegetation may contribute to mitigation of the problems discussed in A) with reference to examples. (7 points)

**END**