

Environmental Management Certificate

Sample Examination Question

This paper contains sample questions representative of those contained on the Environmental Management Certificate examination papers. It does not constitute a whole examination paper.

Environmental Management Certificate examination papers comprise:

Part 1

10 short answer questions, worth one mark each.

Part 2

3 structured questions, worth 30 marks each.

Part 3

A case study, consisting of a scenario followed by five questions relating to the process of environmental review, worth 10 marks each.

A three hour time limit is set for completion of the examination paper.

This sample paper gives examples of questions from Part 1 and Part 2 only.

Part 1

1 State two ways in which organisations cause climate change.

(1 mark)

2 What are 'process guidance notes'?

(1 mark)

3 Briefly describe the aim of an 'environmental impact assessment'.

(1 mark)

Total

Part 2

11 You have been made responsible for reviewing your organisation's waste production and disposal.

a Discuss the environmental impacts associated with waste disposal.

(10 marks)

b Explain how you would go about identifying sources of waste in your organisation.

(8 marks)

c What information would you need to record in order to describe effectively the different types of waste you identify?

(4 marks)

d Explain how you would determine whether certain types of waste constitute a significant environmental aspect for your organisation.

(8 marks)

Total

Sample Answer Information

Part 1

EACH question carries 1 mark, given at the examiner's discretion, for:

- 1 Any two of the following:
 - activity associated with the use of fossil fuels (e.g. energy usage, transportation); combustion processes
 - activity associated with deforestation (e.g. use of paper/wood products)
 - activity associated with the use of CFCs (e.g. refrigeration, air conditioning)
 - activity associated with waste disposal which lead to the release of Green House Gases.
- 2 Process guidance notes are documents produced by the environment agencies to help interpret the requirements of Best Available Techniques (BAT) for different industrial processes subject to IPCC/IPC.
- 3 The aim of an environmental impact assessment is to assess the overall impact on the environment of a proposed development project before it is implemented to minimise the risk of environmental damage.

Part 2

- 11 a 1 mark for mentioning each of the five impacts and 1 further mark for elaborating on each of the five impacts. The environmental impacts associated with waste disposal are:

- i **Resource depletion** – through disposing of materials that could have been used to produce recycled products and the resources (e.g. oil) used to transport the waste to its site of disposal.
- ii **Climate change** – as a result of emissions from transportation of the waste, incineration and the release of methane from old landfill sites.
- iii **Air pollution** – through the release of emissions associated with the transportation of the waste, from old landfill sites as the waste is broken down and from the burning of waste in incinerators.
- iv **Water pollution** – as a result of rain water and moisture within the waste filtering through old landfill sites producing a contaminated liquid called leachate, which can pollute ground water and surface waters.
- v **Pollution** – old landfill sites can cause gases, such as methane, to migrate through the soil creating a fire hazard and killing local vegetation as well as place toxic substances, such as copper, nickel, zinc and boron into the ground.

10 marks

- b 1 mark for mentioning each of the four elements of the procedure and 1 further mark for explaining each of the four elements.

The answer should illustrate an application of the principles of conducting an environmental review to the particular situation of waste – specifically the three types of evidence that should be addressed: observational; documentary; and verbal.

- i **Inspection of the organisation's site** – a walking tour of the site looking in the different bins and making notes of where different types of waste are produced.
- ii **Observation of processes and procedures in operation** – observing the processes of an organisation's equipment and the procedures conducted by its staff can give detailed evidence of how and where waste is produced.
- iii **Inspection of sales, purchasing and waste disposal documentation** – examination of documents associated with inputs (purchasing) and outputs (sales, waste disposal) can give an indication of the quantity and types of waste produced.
- iv **Interviewing of employees** – asking employees in different areas of an organisation is a useful method of gathering information.

8 marks

- c 1 mark for mentioning **one** type of information, 2 marks for mentioning **two** types of information, 4 marks for mentioning **three** types of information.

For the information collected to be useful, the following points would need to be recorded for each type of waste identified:

- i **The nature of the waste** – what it is made of and chemical composition where necessary.
- ii **The volume of waste produced** in a certain time period.
- iii **The source of the waste** – i.e. where in the organisation it comes from.

4 marks

- d 2 marks for explaining **each** of the **four** criterion.

This answer should demonstrate an application of the principles of determining that significance of particular types of waste. The following criteria should be mentioned:

- i Is the waste controlled by legislation or established codes of practice? E.g., all types of Hazardous waste should automatically become significant.
- ii Does the waste have financial implications? E.g., could some types of waste be sold or does certain waste constitute a significant financial cost?
- iii Does the waste have a recognised potential for environmental harm? E.g., Hazardous wastes.
- iv Is the waste known to be of concern to customers, investors, insurers or the local community?

8 marks



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