

March 2012

Examiners' Report NEBOSH National Certificate in Environmental Management



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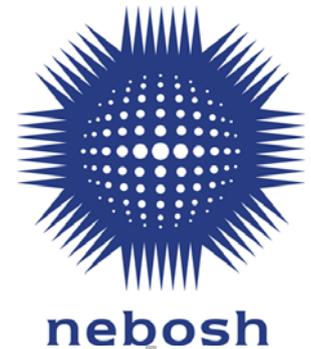


Examiners' Report

NEBOSH NATIONAL CERTIFICATE IN ENVIRONMENTAL MANAGEMENT

UNIT NEC1: MANAGEMENT AND CONTROL OF ENVIRONMENTAL HAZARDS

MARCH 2012



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Introduction

NEBOSH (The National Examination Board in Occupational Safety and Health) was formed in 1979 as an independent examining board and awarding body with charitable status. We offer a comprehensive range of globally-recognised, vocationally-related qualifications designed to meet the health, safety, environmental and risk management needs of all places of work in both the private and public sectors. Courses leading to NEBOSH qualifications attract over 25,000 candidates annually and are offered by over 400 course providers in 65 countries around the world. Our qualifications are recognised by the relevant professional membership bodies including the Institution of Occupational Safety and Health (IOSH) and the International Institute of Risk and Safety Management (IIRSM).

NEBOSH is an awarding body to be recognised and regulated by the Scottish Qualifications Authority (SQA).

Where appropriate, NEBOSH follows the latest version of the “GCSE, GCE, *Principal Learning and Project Code of Practice*” published by the regulatory authorities in relation to examination setting and marking. While not obliged to adhere to this code, NEBOSH regards it as best practice to do so.

Candidates’ scripts are marked by a team of Examiners appointed by NEBOSH on the basis of their qualifications and experience. The standard of the qualification is determined by NEBOSH, which is overseen by the NEBOSH Council comprising nominees from, amongst others, the Health and Safety Executive (HSE), the Confederation of British Industry (CBI), the Trades Union Congress (TUC) and the Institution of Occupational Safety and Health (IOSH). Representatives of course providers, from both the public and private sectors, are elected to the NEBOSH Council.

This report on the examination provides information on the performance of candidates which it is hoped will be useful to candidates and tutors in preparation for future examinations. It is intended to be constructive and informative and to promote better understanding of the syllabus content and the application of assessment criteria.

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General comments

Many candidates are well prepared for this unit assessment and provide comprehensive and relevant answers in response to the demands of the question paper. This includes the ability to demonstrate understanding of knowledge by applying it to workplace situations.

There are always some candidates, however, who appear to be unprepared for the unit assessment and who show both a lack of knowledge of the syllabus content and a lack of understanding of how key concepts should be applied to workplace situations.

In order to meet the pass standard for this assessment, acquisition of knowledge and understanding across the syllabus are prerequisites. However, candidates need to demonstrate their knowledge and understanding in answering the questions set. Referral of candidates in this unit is invariably because they are unable to write a full, well-informed answer to one or more of the questions asked.

Some candidates find it difficult to relate their learning to the questions and as a result offer responses reliant on recalled knowledge and conjecture and fail to demonstrate a sufficient degree of understanding. Candidates should prepare themselves for this vocational examination by ensuring their understanding, not rote-learning pre-prepared answers.

Candidates should therefore note that Examiners' Reports are **not** written to provide 'sample answers' but to give examples of what Examiners were expecting and more specifically to highlight areas of under performance.

Common pitfalls

It is recognised that many candidates are well prepared for their assessments. However, recurrent issues, as outlined below, continue to prevent some candidates reaching their full potential in the assessment.

- Many candidates fail to apply the basic principles of examination technique and for some candidates this means the difference between a pass and a referral.
- In some instances, candidates do not attempt all the required questions or are failing to provide complete answers. Candidates are advised to always attempt an answer to a compulsory question, even when the mind goes blank. Applying basic health and safety management principles can generate credit worthy points.
- Some candidates fail to answer the question set and instead provide information that may be relevant to the topic but is irrelevant to the question and cannot therefore be awarded marks.
- Many candidates fail to apply the command words (also known as action verbs, eg describe, outline, etc). Command words are the instructions that guide the candidate on the depth of answer required. If, for instance, a question asks the candidate to 'describe' something, then few marks will be awarded to an answer that is an outline. Similarly the command word 'identify' requires more information than a 'list'.
- Some candidates fail to separate their answers into the different sub-sections of the questions. These candidates could gain marks for the different sections if they clearly indicated which part of the question they were answering (by using the numbering from the question in their answer, for example). Structuring their answers to address the different parts of the question can also help in logically drawing out the points to be made in response.
- Candidates need to plan their time effectively. Some candidates fail to make good use of their time and give excessive detail in some answers leaving insufficient time to address all of the questions.
- Candidates should also be aware that Examiners cannot award marks if handwriting is illegible.
- Candidates should note that it is not necessary to start a new page in their answer booklet for each section of a question.

UNIT NEC1

Management and control of environmental hazards

-
- Question 1** (a) **Give the meaning of the term 'fossil fuels'.** (4)
- (b) **Outline:**
- (i) *the benefits;* (4)
- (ii) *the limitations* (4)
- associated with the use of fossil fuels as an energy source.*
- (c) **Identify FOUR sources of energy other than fossil fuels AND, in EACH case, outline how the energy is generated.** (8)
-

Most candidates answered part (a) well including why the term "fossil" is used and how they were formed. They also gave suitable examples.

The answers to part (b)(i) and (ii) were also good with the benefits being mainly associated with ease of use and availability whilst the limitations are around the long-term sustainability of their use and their potential to cause pollution.

For part (c) candidates could identify four alternative sources of energy but some failed to give sufficient detail on how the energy is generated.

Overall a range of good answers for a topical subject.

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- Question 2** **Outline the role of air quality standards in the UK.** (8)
-

This question was not very well answered. Most candidates gained some marks but it seemed as though many were lacking detailed knowledge as to their role in protecting and improving air quality, the justification and legal reasons for their existence and how they are implemented in practice.

-
- Question 3** **Outline ways in which a company could communicate its environmental policy to staff and other relevant parties.** (8)
-

This question was generally answered well. Most candidates recognised the role of training and internal communication methods possibly reflecting personal experience. There were fewer instances of methods to communicate to a wider audience such as neighbours and other stakeholders and how involving staff directly in various aspects can aid internal communication.

Question 4 *Under the Environmental Permitting (England and Wales) Regulations 2010:*

- (a) **identify** the types of regulated facilities that would require an environmental permit; (3)
- (b) **identify** the circumstances in which a single permit can be granted for more than one regulated facility. (2)
- (c) **identify** the regulatory bodies for each type of activity. (3)
-

This question was poorly answered by many candidates. The generic titles of types of installation or operation as mentioned in the Regulations were sought for part (a).

Part (b) asked for the circumstances in which a single permit can be granted, not for examples.

For part (c) the regulatory bodies identified were not always linked to the appropriate activity. It would appear that poor marks were due to a combination of lack of detailed knowledge of the Regulations or not paying sufficient attention to the question.

Question 5 *The concept of source, pathway and receptor is useful when assessing environmental risk.*

- (a) (i) **Give** the meaning of the term 'receptor'. (2)
- (ii) **Identify FOUR** typical receptors. (4)
- (b) **Give TWO** examples of typical pollution pathways. (2)
-

In answers to part (a)(i) candidates linked the definition to the source – pathway – receptor model but few included why the receptor was such an important concept. However, most candidates successfully identified four typical receptors for part (a)(ii).

In part (b) a good answer gave two suitable examples and made it clear where the pathway lay. Bearing in mind that a medium such as water can be a pathway or a receptor depending on circumstances it was necessary to make this clear. Not everyone achieved this.

Despite these reservations, the answers were generally good.

Question 6 (a) *A spillage of a hazardous substance is an example of a source of water pollution.*

Outline FOUR additional sources of water pollution. (4)

- (b) **Outline** measures to reduce the risk of spillage of hazardous substances in a workplace. (4)
-

This question was well answered by most candidates. There are many sources of water pollution so identifying four answers to part (a) ought not to be a problem.

Part (b) was also well answered with candidates outlining sufficient measures to achieve good marks.

Question 7 *Outline the potential environmental effects that may arise from contaminated land.* (8)

Another well answered question with most candidates achieving good marks with a good range of effects outlined.

Question 8 *Neighbours of a newspaper printing works have been complaining of the noise.*
Identify suitable methods of noise control AND outline how these may reduce the noise nuisance. (8)

This question was generally well answered although some candidates seemed confused as to the difference between various methods of noise control such as adsorption and insulation. A few also failed to gain marks for not giving sufficient detail in outlining how the methods actually reduced the noise nuisance.

Question 9 *An organisation is preparing its emergency response plan in the event of a spillage of hazardous liquid on site.*
Outline the issues that should be taken into account. (8)

Another "outline" question where some candidates failed to provide sufficient detail to gain full marks but overall the answers were good. They tended to concentrate on the practical issues such as liaison with various parties and provision of equipment and training but few mentioned such issues as business continuity and support to the staff directly involved in dealing with an incident.

Question 10 (a) *Identify reasons for carrying out environmental impact assessments.* (3)
(b) *Identify FIVE types of environmental impacts which should be considered when carrying out an environmental impact assessment.* (5)

Answers to this question were variable. Some candidates answered part (a) in general terms such as legal, financial or moral reasons but failed to recognise the specific reasons: specific legal requirements in planning and permitting legislation and the roles in implementing an environmental management system.

For part (b) many candidates gave aspects rather than impacts and were not clear enough in their answer. For example, "air emissions" or "air quality" is not enough; the answer should include "deterioration of air quality" or similar.

Question 11	(a)	Give the meaning of the term 'environmental audit'.	(2)
	(b)	Outline the pre-audit preparations that may be needed prior to carrying out the audit.	(6)

Some candidates answered part (a) with a good description but others struggled to capture the main elements and objectives or concentrated too narrowly on parts of the audit process such as environmental policy.

Variable answers to part (b) were also found. There were some good answers but some candidates focussed almost exclusively on the paperwork needed to support an audit with little reference to anything else. A few misunderstood this part of the question and detailed the preparations that an organisation needed to make to ensure that an audit would not find shortcomings (such as ensuring paperwork was completed and inspections were up to date).

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