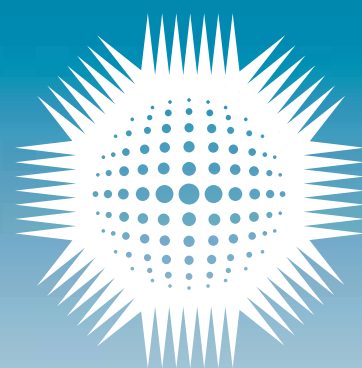


July 2016

# Examiners' Report

NEBOSH National  
Diploma in  
Occupational Health  
and Safety - Unit C



nebosh



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# **Examiners' Report**

## **NEBOSH NATIONAL DIPLOMA IN OCCUPATIONAL HEALTH AND SAFETY**

### **UNIT C: WORKPLACE AND WORK EQUIPMENT**

**JULY 2016**

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## **CONTENTS**

Introduction	2
General comments	3
Comments on individual questions	4
Examination technique	10
Command words	14

# Introduction

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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 around 50,000 candidates annually and are offered by over 600 course providers, with examinations taken in over 120 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 that applies best practice setting, assessment and marking and applies to Scottish Qualifications Authority (SQA) regulatory requirements.

This report provides guidance for candidates and course providers for use 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

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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 other 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, which is an essential requirement at Diploma level.

This report has been prepared to provide feedback on the standard date examination sitting in July 2016.

Feedback is presented in these key areas: responses to questions, examination technique and command words and is designed to assist candidates and course providers prepare for future assessments in this unit.

Candidates and course providers will also benefit from use of the 'Guide to the NEBOSH National Diploma in Occupational Health and Safety' which is available via the NEBOSH website. In particular, the guide sets out in detail the syllabus content for Unit C and tutor reference documents for each Element.

Additional guidance on command words is provided in 'Guidance on command words used in learning outcomes and question papers' which is also available via the NEBOSH website.

Candidates and course providers should also make reference to the Unit C 'Example question paper and Examiners' feedback on expected answers' which provides example questions and details Examiners' expectations and typical areas of underperformance.

## Unit C

### Workplace and work equipment

- 
- Question 1** (a) *In relation to automatic fire detection and alarm systems, **outline** the basic principles of operation of:*
- (i) *heat detectors;* (4)
- (ii) *smoke detectors.* (4)
- (b) ***Identify** the circumstances in which **EACH** type of detector would be inappropriate.* (2)
- 

The question assessed candidates' knowledge of learning outcome 3.3: Describe common fire detection and alarm systems and procedures.

Candidates were expected to mention both types of heat detectors, the fixed temperature detector and the rate of rise temperature type. Candidates often mentioned means of false alarms but this was not what the question required so did not gain marks. For the smoke detectors the two main types of optical detectors and ionisation detectors were sought.

For part (b) situations were required where these types of detectors might be *inappropriate*. Although some good answers were presented too many candidates confused the situation and answered where they were *appropriate*, hence missing marks.

Candidates should be able to correctly identify the types of detector required and must read and re-read the question carefully to ensure they are answering the question asked.

- 
- Question 2** ***Outline** factors that should be considered when developing a planned preventive maintenance programme for safety-critical machinery.* (10)
- 

The question assessed candidates' knowledge of learning outcome 5.3: Explain safe working procedures for the maintenance, inspection and testing of work equipment according to the risks posed.

Experience and a logical approach should have enabled candidates to gain high marks on this question. However, candidates seemed to have difficulty focusing on exactly what was being asked and gave general answers or explanations on the different types of schemes, permits-to-work, isolation, etc and how to set up a system. Candidates who could identify a broad range of factors generally gained more highly than those with a small or limited range.

- 
- Question 3** *Exothermic chemical processes rely on efficient control of temperature and pressure to prevent the phenomenon of 'runaway reaction' (thermal runaway) when mixing chemicals in a reactor.*
- Outline** methods used to control temperature and pressure in such circumstances.* (10)
- 

The question assessed candidates' knowledge of learning outcome 4.1: Outline the main physical and chemical characteristics of industrial chemical processes.

This question was not well answered, with many candidates unable to demonstrate a good understanding of the causes and necessary control measures. A number of answers gave general methods of cooling and did not adequately address the immediacy of the situation.

Candidates should have covered the type of control measures necessary to cope with this emergency situation and not just standard cooling and measurement controls.

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**Question 4**     **Outline** *specific causes of:*

(a)     *lateral instability;*     **(5)**

(b)     *longitudinal instability*     **(5)**

*in counterbalanced forklift trucks.*

---

The question assessed candidates' knowledge of learning outcome 7.1: Describe the main hazards and control measures associated with commonly encountered mobile work equipment.

Many candidates seemed unprepared for this question. Those candidates who gained marks covered the load and its positioning, the environment and ground conditions and the condition of the truck. However, many confused the lateral and longitudinal aspects of instability and therefore could not gain marks by placing otherwise good points in the wrong section of the answer.

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**Question 5**     *A manually-operated lathe is to be fitted with a computer numerical control (CNC) system.*

**Outline:**

(a)     *additional hazards that this may introduce;*     **(4)**

(b)     *measures required to minimise the risks associated with these hazards.*     **(6)**

---

The question assessed candidates' knowledge of learning outcome 6.2: Describe, with examples, the principal generic mechanical and non-mechanical hazards of general workplace machinery.

Fitting of a CNC system to an existing manually operated lathe provides the opportunity for the organisation to gain increased output due to higher operating speeds and more repeatable output. This should have led candidates to identify in part (a) that the higher operating speeds would create extra hazards and candidates were expected to be able to outline these and that the conversion could also lead to problems during maintenance and the possibility of guard bypass.

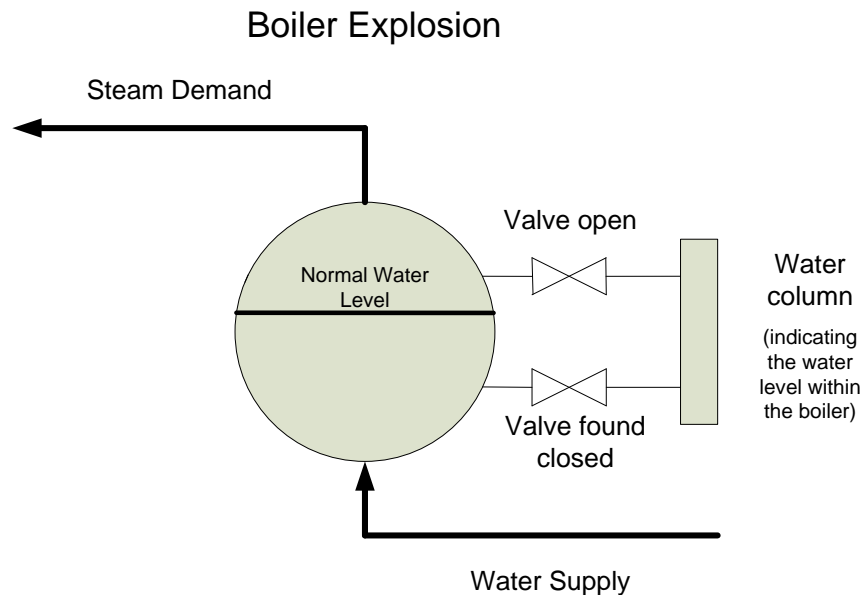
Part (b) should have followed on from this and enabled candidates to mention guarding, setting and operating the machine as well as training and information for operators.

While a few candidates did provide good answers there were still many who did not appear to understand the background of CNC machines and their hazards. Some candidates answered with standard machinery hazards and safeguards and did not consider the 'additional' hazards required in the question.

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**Question 6**

An organisation's health and safety adviser has been asked to investigate a boiler explosion at one of its sites. The maintenance manager has drawn a sketch showing the position of the water column isolating valves at the time of the explosion (see below).



- (a) **Describe** the chain of events that could have led to an explosion due to the water column valve being closed. (6)
- (b) Other than the safety feature on the water column, **identify** safety features that the health and safety adviser would expect to find on the boiler. (4)
- 

The question assessed candidates' knowledge of learning outcome 11.3: Outline the key features and safety requirements for process pressure systems.

This question explores the practical and theoretical knowledge of candidates concerning boiler operation and failure. The diagram provided with the question should have guided candidates to consider a drop in water levels in the boiler and what might develop from this.

Part (a) was not well answered by the majority of candidates who showed a general lack of understanding of boiler systems.

In part (b) many candidates identified standard safety features that were applicable to most pressure systems and gained some marks.

---

<b>Question 7</b>	<i>An organisation owns a fleet of vehicles comprising lightweight delivery vans and pool cars. Recent statistics show an increase in the number of incidents involving injuries to the drivers and damage to the organisation's vehicles while driving at work. It has been decided to implement a training programme to help reduce the number of work-related driving incidents.</i>	
(a)	<b>Outline</b> factors associated with driving at work that may contribute to the work-related driving risk.	(8)
(b)	<b>Identify</b> circumstances when driver training may be required.	(6)
(c)	<b>Outline</b> the possible content of a training programme for new drivers.	(6)

---

The question assessed candidates' knowledge of learning outcome 10.2: Outline the factors associated with driving at work that increases the risk of an incident and the control measures to reduce work-related driving risks.

A popular question attempted by most candidates who were able to give possible reasons why driving incidents had increased. However, a few candidates limited their answers to the workplace and did not consider the public highway, limiting their answers to on-site topics alone and therefore reducing the marks gained.

In part (a) there was a wide range of factors that candidates could outline covering driving styles, times, accessories and distractions as well as the vehicle and its characteristics.

In part (b) circumstance for training were required and most candidates managed to identify circumstances that might require training such as: on recruitment, refresher and following incidents, etc.

For part (c) the content of a training programme was considered and many candidates were able to outline both on-site and off-site topics.

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<b>Question 8</b>	(a) <i>With respect to UK mains voltage electricity, <b>outline</b> factors that determine the severity of the effects of an electric shock.</i>	(6)
	(b) <b>Describe</b> the principles of operation for <b>EACH</b> of the following protective devices:	
	(i) <i>residual current device;</i>	(3)
	(ii) <i>fuse;</i>	(2)
	(iii) <i>110v centre tapped to earth reduced voltage system.</i>	(2)
	(c) <b>Outline</b> other design features of electrical systems intended to improve safety.	(7)

---

The question assessed candidates' knowledge of learning outcomes 8.2: Outline the dangers of electricity; and 8.3: Outline the issues relevant to the installation, use, inspection and maintenance of electrical systems.

Over half of all candidates attempted this question with some candidates gaining good marks. However, there seemed to be a lack of understanding of the various factors that could affect the severity of the electric shock. Many candidates confused voltage and current suggesting that some course providers were not tackling this area well.



Part (a) required an understanding of how an electric shock occurred and the factors that would affect the outcome. This could include surroundings, the individual and the source of the electricity.

Part (b) caused problems among a number of candidates who were not able to demonstrate a good understanding of the concepts.

Part (c) looked for other design features to reduce electrical risk and brought a mixed response.

Marks were generally quite good for the latter parts of the question but overall there was great variability in the marks awarded suggesting that some candidates were more comfortable with electrical questions than others.

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<b>Question 9</b>	<i>A non-computerised production line where tubes of toothpaste are filled, capped and packed manually by employees is to be relocated. The relocation will require dismantling the production line and installing it at the new location.</i>	
	<b>Explain</b> possible risks associated with the use of the production line arising out of its relocation.	<b>(20)</b>

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The question assessed candidates' knowledge of learning outcome 5.2: Explain how risks to health and safety arising from the use of work equipment are controlled.

A question that asked for a practical knowledge or good visualisation of what might occur after relocation of a production line. Issues such as services, work environment, machinery guarding, floor conditions after the installation was complete, would all have gained marks.

This was an unpopular question attempted by less than one in five candidates and marks were generally not strong. A number of candidates thought the question referred to the actual process of dismantling and reassembling rather than the new installation and its environment and therefore could not gain good marks. This type of question assesses the ability to think around a situation rather than repeat answers by rote, the limited marks of many candidates possibly reflecting their lack of real world experience, or their lack of reading around a subject to gain a better perspective.

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<b>Question 10</b>	(a) <b>Outline</b> conditions that must be present for a primary dust explosion to occur.	<b>(5)</b>
	(b) <b>Outline</b> additional conditions necessary for secondary dust explosions to occur.	<b>(5)</b>
	(c) <b>Identify</b> design features that would minimise the likelihood and effect of a dust explosion.	<b>(10)</b>

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The question assessed candidates' knowledge of learning outcomes 2.1: Outline the properties of flammable and explosive materials and the mechanisms by which they ignite; and 2.3: Outline the main principles and practices of fire and explosion prevention and protection.

Although a popular question, only a small number of candidates gained good marks. The question looked for an understanding of the process by which explosions occur but many candidates could not demonstrate their knowledge.

Part (a) looked for conditions for a primary explosion based on the explosion pentagon but too many candidates stuck to the fire triangle and limited their potential for marks. For part (b) a different set of conditions were required to separate the basics of a primary and secondary explosion. However, many candidates simply repeated the answer to part (a) which demonstrated a lack of understanding of the subject.

For part (c) an identification of control measures should have looked at avoiding the factors identified in the explosion pentagon. Few candidates were able to make the link between the hazards and their controls and answered in generic terms only.

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<b>Question 11</b>	<i>A rectangular, steel-framed warehouse, measuring 40m x 100m and 18m high was severely damaged in a storm. One of the long coated steel walls suffered catastrophic failure, that in turn caused the flat roof of the warehouse to collapse and the other coated steel walls to buckle.</i>	
(a)	<b>Outline</b> possible causes of this structural failure.	<b>(5)</b>
(b)	<b>Outline</b> health and safety issues that should be considered when planning the subsequent demolition of the damaged warehouse.	<b>(15)</b>

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The question assessed candidates' knowledge of learning outcomes 9.4: Explain the hazards, precautions and safe working practices associated with demolition work; and 1.4: Outline the main issues associated with maintaining structural safety of workplaces.

This question was looking for possible causes of failure of a structure and a consideration of health and safety issues in the subsequent demolition. For the first part candidates were expected to outline a number of environmental conditions, usage factors, ground conditions and quality of the building material. For part (b) a good knowledge of demolition procedures, hazards and risks was expected. There was a wide range of topics to choose from here and most candidates were able to gain good marks by covering a range of typical construction hazards, even though these might not have been aimed specifically at demolition.

The majority of candidates attempted this question and on the whole gained good marks. Perhaps as it was the last question, some answers seemed hurried and did not necessarily achieve the depth of answer required for an 'outline' question, with some candidates providing lists or bullet points and hence limiting their marks.

## Examination technique

The following issues are consistently identified as the main areas in need of improvement for candidates undertaking Diploma level qualifications:

### Candidates misread/misinterpreted the question

NEBOSH questions are systematically and carefully prepared and are subject to a number of checks and balances prior to being authorised for use in question papers. These checks include ensuring that questions set for the Diploma level qualifications relate directly to the learning outcomes contained within the associated syllabus guides. The learning outcomes require candidates to be sufficiently prepared to provide the relevant depth of answer across a broad range of topic areas. For example, a candidate could be asked about the causes of stress, or could be asked about the effects of stress, a question could require a response relating to the principles of fire initiation, or a question could require a response relating to the spread of fire. Therefore, a candidate should focus not only on the general topic area (eg stress, fire), but also the specific aspect of that topic to which the question relates.

Examiners suggest that while many candidates do begin their answer satisfactorily and perhaps gain one or two marks, they then lose sight of the question and include irrelevant information. Although further points included in an answer can relate to the general topic area, these points are not focused on the specific learning outcome and marks cannot be awarded. However, some candidates appear to misread or misinterpret several questions. This situation is more likely due to candidates preparing for the examination with a number of stock answers obtained through rote-learning, that again can provide answers that are loosely associated with the topic matter but do not provide answers specific to the question. Such an approach is clearly evident to an Examiner and demonstrates little understanding of the topic matter and marks are not awarded.

Examiners noted a tendency on the part of many candidates to write about things that were not asked for, despite the fact that guidance as to what to cover had been given in the question. An example is a question where candidates were instructed that there was no need to make reference to specific control measures and yet did so. In another example candidates wrote about selection of PPE when the question wording had clearly stated that this had already been undertaken. Another example was where candidates wrote about barriers to rehabilitation without relating them to the bio-psychosocial model, even though the question specifically asked them to do this.

Some candidates wrote large amounts of text on a single topic where only one mark could be awarded. Candidates did not recognise that the amount of marks awarded to each section gives an indication of the depth of the answer required.

It would therefore appear that a sizeable number of candidates misread some of the questions, to their disadvantage. This should be a relatively easy pitfall to overcome; candidates should ensure that they make full use of the 10 minutes reading time to understand what each question requires. Candidates are advised to allow sufficient time to read and re-read the question in order to determine the key requirements. Underlining or highlighting key words can assist in keeping focused and simple mind maps or answer plans can also be useful. An answer plan will often be helpful in ensuring that all aspects of the question are attended to; maps and plans should be kept simple so as not to use up too much examination time; if all aspects are not dealt with it will be difficult to gain a high mark. Candidates should not assume when they see a question that it is exactly the same as one that they may have seen in the past; new questions are introduced and old questions are amended. It is therefore of the utmost importance that questions are read carefully and the instructions that they give are followed.

It may help if, when preparing for the examinations, candidates write out their answers in full and ask a tutor or other knowledgeable third party to mark their work. In so doing, issues with understanding can be noted and remedial action taken.

Course providers and candidates should note that various means are used to draw attention to keywords in examination questions. These means include emboldened and italicised text and the use of words in capitals. These means are intended to draw the candidate's attention to these words and this emphasis should then be acted upon when making a response. These devices can often assist in giving guidance on how to set out an answer to maximise the marks gained. For example: **Identify THREE** things to be considered **AND** for **EACH**.....

Candidates often have a reasonable body of knowledge and understanding on the topic covered by a question, but they have not been able to apply this to the examination question being asked. This could be because sufficient time has not been taken to read the question, noting the words being emphasised.

When preparing candidates for examination, or offering advice on examination technique, accredited course providers should stress that understanding the question requirements and the sub-structure of the response to the question is the fundamental step to providing a correct answer. Rather than learning the 'ideal answer' to certain questions effort would be better spent in guided analysis on what a question requires. The rote learning of answers appears to close the candidates' minds to the wider (and usually correct) possibilities.

### **Candidates repeated the same point but in different ways**

There are instances where candidates repeat very similar points in their answers, sometimes a number of times. This is easily done in the stressful environment of the examination. However, once a point has been successfully made and a mark awarded for it, that mark cannot be awarded again for similar points made later in the answer. In some cases, particularly where questions had more than one part, candidates gave an answer to, say, part (b) of a question in part (a), meaning that they needed to repeat themselves in part (b) thus wasting time.

One possible reason for this might be that candidates have relatively superficial knowledge of the topic - a view supported by the low marks evident in some answers. It appears that, faced with a certain number of marks to achieve and knowing that more needs to be written, but without detailed knowledge, candidates appear to opt to rephrase that which they have already written in the hope that it may gain further marks. Another possible reason is a failure to properly plan answers, especially to the Section B questions - it would appear that candidates sometimes become 'lost' in their answers, forgetting what has already been written. It may be due either to a lack of knowledge (so having no more to say) or to limited answer planning, or to a combination of the two. When a valid point has been made it will be credited, but repetition of that point will receive no further marks. Candidates may have left the examination room feeling that they had written plenty when in fact they had repeated themselves on multiple occasions, therefore gaining fewer marks than they assumed.

Candidates sometimes think they have written a lengthy answer to a question and are therefore deserving of a good proportion of the marks. Unfortunately, quantity is not necessarily an indicator of quality and sometimes candidates make the same point several times in different ways. Examiners are not able to award this same mark in the mark scheme a second time. The chance of repetition increases when all marks for a question (eg 10 or 20) are available in one block. It can also happen when a significant proportion of the marks are allocated to one part of a question.

This issue is most frequently demonstrated by candidates who did not impose a structure on their answers. Starting each new point on a new line would assist in preventing candidates from repeating a basic concept previously covered, as well as helping them assess whether they have covered enough information for the available marks.

As with the previous area for improvement ('misreading the question') writing an answer plan where points can be ticked off when made, or structuring an answer so that each point made is clearly shown, for example by underlining key points, can be of great use. This technique aids candidates and makes it much clearer in the stress of the examination for candidates to see which points have been made and reduce the chances of the same point being made several times. Course providers are encouraged to set written work and to provide feedback on written answers, looking to see that candidates are able to come up with a broad range of relevant and accurate points; they should point out to candidates where the same point is being made more than once.

Candidates are advised to read widely. This means reading beyond course notes in order to gain a fuller understanding of the topic being studied. In that way, candidates will know more and be able to produce a broader and more detailed answer in the examination. Candidates may also find it helpful to read through their answers as they write them in order to avoid repetition of points.

Course providers should provide examination technique pointers and practice as an integral part of the course exercises. Technique as much as knowledge uptake should be developed, particularly as many candidates may not have taken formal examinations for some years.

### **Candidates produced an incoherent answer**

Candidates produced answers that lacked structure, digressed from the question asked and were often incoherent as a result. In many cases, there seemed to be a scatter gun approach to assembling an answer, which made that answer difficult to follow. Answers that lack structure and logic are inevitably more difficult to follow than those that are well structured and follow a logical approach. Those candidates who prepare well for the unit examination and who therefore have a good and detailed knowledge commensurate with that expected at Diploma level, invariably supply structured, coherent answers that gain good marks; those candidates who are less well prepared tend not to do so.

Having good written communication skills and the ability to articulate ideas and concepts clearly and concisely are important aspects of the health and safety practitioner's wider competence. Candidates should be given as much opportunity as possible to practice their writing skills and are advised to practice writing out answers in full during the revision phase. This will enable them to develop their knowledge and to demonstrate it to better effect during the examination. It may help if candidates ask a person with no health and safety knowledge to review their answers and to see whether the reviewer can understand the points being made.

### **Candidates did not respond effectively to the command word**

A key indicator in an examination question will be the command word, which is always given in **bold** typeface. The command word will indicate the depth of answer that is expected by the candidate.

Generally, there has been an improvement in response to command words, but a number of candidates continue to produce answers that are little more than a list even when the command word requires a more detailed level of response, such as 'outline' or 'explain'. This is specifically addressed in the following section dealing with command words, most commonly failure to provide sufficient content to constitute an 'outline' was noted. Failure to respond to the relevant command word in context was also a frequent problem hence information inappropriate to the question was often given.

Course exercises should guide candidates to assessing the relevant points in any given scenario such that they are able to apply the relevant syllabus elements within the command word remit.

### **Candidate's handwriting was illegible**

It is unusual to have to comment on this aspect of candidate answers, as experienced Examiners rarely have difficulties when reading examination scripts. However, Examiners have independently identified and commented on this as an area of concern. While it is understood that candidates feel under pressure in an examination and are unlikely to produce examination scripts in a handwriting style that is representative of their usual written standards; it is still necessary for candidates to produce a script that gives them the best chance of gaining marks. This means that the Examiners must be able to read all the written content.

Some simple things may help to overcome handwriting issues. Using answer planning and thinking time, writing double-line spaced, writing in larger text size than usual, using a suitable type of pen, perhaps trying out some different types of pens, prior to the examination. In addition, it is important to practise hand writing answers in the allocated time, as part of the examination preparation and revision. Today, few of us hand-write for extended periods of time on a regular basis, as electronic communication and keyboard skills are so widely used. Accredited course providers should encourage and give opportunities for candidates to practise this hand-writing skill throughout their course of study. They should identify at an early stage if inherent problems exist. These can sometimes be accommodated through reasonable adjustments, eg by the provision of a scribe or the use of a keyboard. Candidates with poorly legible handwriting need to understand this constraint early in their course of studies in order for them to minimise the effect this may have.

NEBOSH recommends to accredited course providers that candidates undertaking this qualification should reach a minimum standard of English equivalent to an International English Language Testing System score of 7.0 or higher in IELTS tests in order to be accepted onto a Diploma level programme.

For further information please see the latest version of the IELTS Handbook or consult the IELTS website: [http://www.ielts.org/institutions/test\\_format\\_and\\_results.aspx](http://www.ielts.org/institutions/test_format_and_results.aspx)

Candidates wishing to assess their own language expertise may consult the IELTS website for information on taking the test: <http://www.ielts.org/institutions/faqs.aspx>

Course providers are reminded that they must ensure that these standards are satisfied or additional tuition provided to ensure accessible and inclusive lifelong learning.

### **Candidates did not answer all the questions**

It has been noted that a number of candidates do not attempt all of the questions on the examination and of course where a candidate does not provide an answer to a question, no marks can be awarded. Missing out whole questions immediately reduces the number of possible marks that can be gained and so immediately reduces the candidate's opportunity for success. There can be several reasons for this issue: running out of the allocated time for the examination, a lack of sufficient knowledge necessary to address parts of some questions, or in other cases, some candidates have a total lack of awareness that the topic covered in certain questions is even in the syllabus.

If candidates have not fully studied the breadth of the syllabus they may find they are not then equipped to address some of the questions that are on a question paper. At that late stage there is little a candidate can do to address this point. Responsibility for delivering and studying the full breadth of the syllabus rests with both the course provider and the individual candidates and both must play their part to ensure candidates arrive at the examination with a range of knowledge across all areas of the syllabus.

### **Lack of technical knowledge required at Diploma level**

In Section A, candidates must attempt all questions and it was clear that some struggled with those requiring more detailed and technical knowledge. For example, it is not acceptable that at Diploma level, candidates have no knowledge of the principles of good practice that underpin COSHH. Unfortunately this was often found to be the case in responses to questions.

In Section B, where candidates have a choice of questions, many sought to avoid those questions with a higher technical knowledge content. For example questions on radiation, lighting and vibration. Practitioners operating at Diploma level need to be confident with the technical content of the whole syllabus and this does require a significant amount of private study, particularly in these areas of the syllabus that are perhaps less familiar to them in their own workplace situations.

### **Candidates provided rote-learned responses that did not fit the question**

It was apparent in those questions that were similar to those previously set, that the candidates' thought processes were constrained by attachment to memorised answer schemes that addressed different question demands.

While knowledge of material forms a part of the study for a Diploma-level qualification, a key aspect being assessed is a candidate's **understanding** of the topic and reciting a pre-prepared and memorised answer will not show a candidate's understanding. In fact, if a candidate gives a memorised answer to a question that may look similar, but actually is asking for a different aspect of a topic in the syllabus, it shows a lack of understanding of the topic and will inevitably result in low marks being awarded for that answer.

## Command words

Please note that the examples used here are for the purpose of explanation only.

The following command words are listed in the order identified as being the most challenging for candidates:

### Explain

*Explain: To provide an understanding. To make an idea or relationship clear.*

This command word requires a demonstration of an understanding of the subject matter covered by the question. Superficial answers are frequently given, whereas this command word demands greater detail. For example, candidates are occasionally able to outline a legal breach but do not always explain why it had been breached. A number of instances of candidates simply providing a list of information suggests that while candidates probably have the correct understanding, they cannot properly express it. Whether this is a reflection of the candidate's language abilities, in clearly constructing a written explanation, or if it is an outcome of a limited understanding or recollection of their teaching, is unclear. It may be linked to a general societal decline in the ability to express clearly explained concepts in the written word, but this remains a skill that health and safety professionals are frequently required to demonstrate.

When responding to an 'explain' command word it is helpful to present the response as a logical sequence of steps. Candidates must also be guided by the number of marks available. When asked to '**explain** the purposes of a thorough examination and test of a local exhaust ventilation system' for 5 marks, this should indicate a degree of detail is required and there may be several parts to the explanation.

Candidates are often unable to explain their answers in sufficient detail or appear to become confused about what they want to say as they write their answer. For example, in one question many candidates explained the difference between the types of sign, explaining colours and shapes of signs without explaining how they could be used in the depot, as required by the question.

### Describe

*Describe: To give a detailed written account of the distinctive features of a topic. The account should be factual without any attempt to explain.*

The command word 'describe' clearly requires a description of something. The NEBOSH guidance on command words says that 'describe' requires a detailed written account of the distinctive features of a topic such that another person would be able to visualise what was being described. Candidates have a tendency to confuse 'describe' with 'outline'. This means that less detailed answers are given that inevitably lead to lower marks. This may indicate a significant lack of detailed knowledge and/or a lack of ability to articulate the course concepts clearly. Candidates should aim to achieve a level of understanding that enables them to describe key concepts.

Some candidates see the command word 'describe' as an opportunity to fill out an answer with irrelevant detail. If a person was asked to describe the chair they were sitting on, they would have little difficulty in doing so and would not give general unconnected information about chairs in general, fill a page with everything they know about chairs or explain why they were sitting on the chair. Candidates should consider the general use of the command word when providing examination answers.

### Outline

*Outline: To indicate the principal features or different parts of.*

This is probably the most common command word but most candidates treat it like 'identify' and provide little more than a bullet pointed list. As the NEBOSH guidance on command words makes clear, 'outline' is not the same as 'identify' so candidates will be expected to give more detail in their answers. 'Outline' requires a candidate to indicate '*the principal features or different parts of*' the subject of the question.

An outline is more than a simple list, but does not require an exhaustive description. Instead, the outline requires a brief summary of the major aspects of whatever is stated in the question. 'Outline' questions usually require a range of features or points to be included and often 'outline' responses can lack sufficient breadth, so candidates should also be guided by the number of marks available. Those candidates who gain better marks in questions featuring this command word give brief summaries to indicate the principal features or different parts of whatever was being questioned. If a question asks for an outline of the precautions when maintaining an item of work equipment, reference to isolation, safe access and personal protective equipment would not be sufficient on their own to gain the marks available. A suitable outline would include the meaning of isolation, how to achieve safe access and the types of protective clothing required.

## Identify

*Identify: To give a reference to an item, which could be its name or title.*

Candidates responding to identify questions usually provide a sufficient answer. Examiners will use the command word 'identify' when they require a brief response and in most cases, one or two words will be sufficient and further detail will not be required to gain the marks. If a question asks '**identify** typical symptoms of visual fatigue', then a response of 'eye irritation' is sufficient to gain 1 mark. If having been asked to identify something and further detail is needed, then a second command word may be used in the question.

However, in contrast to 'outline' answers being too brief, many candidates feel obliged to expand 'identify' answers into too much detail, with the possible perception that more words equals more marks. This is not the case and course providers should use the NEBOSH guidance on command words within their examination preparation sessions in order to prepare candidates for the command words that may arise.

## Give

*Give: To provide short, factual answers.*

'Give' is usually in a question together with a further requirement, such as '**give** the meaning of' or '**give** an example in **EACH** case'. Candidates tend to answer such questions satisfactorily, especially where a question might ask to 'identify' something and then 'give' an example. The candidate who can answer the first part, invariably has little difficulty in giving the example.

## Comment

*Comment: To give opinions (with justification) on an issue or statement by considering the issues relevant to it.*

For example, if candidates have already calculated two levels of the exposure to wood dust and are then asked to comment on this the issues would include the levels of exposure they had found, and candidates would need to give their opinion on these, while considering what is relevant. The question guides on what may be relevant for example, did it meet the legal requirements, did it suggest controls were adequate, so based on that guidance, did exposure need to be reduced further or did anything else need to be measured or considered? If candidates comment with justification on each of these areas they would gain good marks in that part of question.

Few candidates are able to respond appropriately to this command word. At Diploma level, candidates should be able to give a clear, reasoned opinion based on fact.

For additional guidance, please see NEBOSH's '*Guidance on command words used in learning outcomes and question papers*' document, which is available on our website: [www.nebosh.org.uk/students/default.asp?cref=1345&ct=2](http://www.nebosh.org.uk/students/default.asp?cref=1345&ct=2).





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