

January 2017

Examiners' Report

NEBOSH National
Diploma in
Occupational Health
and Safety - Unit C



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NEBOSH NATIONAL DIPLOMA IN OCCUPATIONAL HEALTH AND SAFETY

UNIT C: WORKPLACE AND WORK EQUIPMENT

JANUARY 2017



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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 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) Accreditation 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

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 January 2017. This report covers both 2010 and 2015 specifications.

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 *In a brewery, a large vessel heats and stirs grain and water to release sugars. It is connected via pipework to an incoming water supply and the following production process. Routine maintenance including cleaning is necessary for the vessel.*

Outline *control measures that should be considered to help reduce risk prior to starting the maintenance activity.* (10)

This question assessed candidates' knowledge and understanding of learning outcomes 1.3: Explain the assessment of risk and safe working practices associated with work in confined spaces (equivalent in the 2015 specification to 1.2: Explain the hazards, risks and control measures associated with work in confined spaces); and 5.3: Explain safe working procedures for the maintenance, inspection and testing of work equipment according to the risks posed (in both specifications).

The majority of candidates recognised this as a predominantly confined spaces question but with a maintenance theme included, so a range of hazards and control measures relevant to the given scenario were required. These might include control of energy sources, control of incoming substances, use of cleaning materials and methods, and atmospheric testing. Control of access to the vessel and surrounding area was also covered. Other points could have included maintenance considerations such as lighting, PPE in context and ensuring moving parts had cooled sufficiently and stopped and could not re-start or fall under gravity.

This was a well answered question. Those candidates who targeted their answer to the scenario given generally gained higher marks.

Question 2 *A flammable solvent is being considered for use by an organisation in part of its processes.*

Outline *design features of a building that may mitigate a fire or explosion should one occur.* (10)

This question assessed candidates' knowledge and understanding 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 (Outline the main principles and practices of prevention and protection against fire and explosion in the 2015 specification).

The topic raised in this question was meant to assess candidates' understanding of how fire might spread in a premises and control measures that may help prevent or slow the spread. Many candidates were able to outline controls based on structural measures such as compartmentation, fire resisting, materials, fire stopping, etc. Better answers included automatic fire-fighting systems and mention of assessment carried out under the requirements of the Dangerous Substances and Explosive Atmospheres Regulations (2002) (DSEAR).

The question was answered well by many candidates but there were a number who provided limited responses.

| | | |
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| Question 3 | <i>A new waste material reception area is being built at a recycling plant.</i> | |
| | Outline factors that should be considered when designing on-site traffic routes in the area. | (10) |

This question assessed candidates' knowledge and understanding of learning outcome: 10.1: Explain the hazards, risks and control measures for safe workplace transport operations (Outline the factors to be considered in a workplace transport risk assessment and the controls available for managing workplace transport risk, in the 2015 specification).

The question was aimed at understanding the design of traffic routes on site and most candidates responded well to the scenario. Good answers included traffic route design to suit the vehicle weight, width and height, separation of vehicles and pedestrians by a number of design choices, and the design and condition of the route surface. Some candidates answered more generally including Hi-Vis clothing, speed limits, training etc, which while sensible in site management were not sought in the question.

This question was generally well answered by those candidates who recognised that it was about traffic routes and not the wider range of controls.

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| Question 4 | Outline the content of a safe system of work on electrical installations made dead. | (10) |
|-------------------|--|-------------|

This question assessed candidates' knowledge and understanding of learning outcome 8.3: Outline the issues relevant to the installation, use, inspection and maintenance of electrical systems.

In particular this question was designed to assess the understanding of candidates on circuits made dead. Many candidates approached the question as one of live working and managed to gain marks by the overlap of controls for both live and dead working. Reference to a permit-to-work system which identified such topics as competency, system records and schematics, circuit identification, isolation, the use of test equipment, locking and tagging systems, temporary protective earthing and PPE in context would all have gained marks.

Many candidates found the question challenging and on the whole the question was not well answered. There were a few exceptions of better answers from candidates who clearly had a working knowledge of electrical systems in the workplace.

| | | |
|-------------------|---|------------|
| Question 5 | <i>A hotel building is to be refurbished. The refurbishment will involve removal of a number of existing internal walls and alterations to structural members. Under the Construction (Design and Management) Regulations 2015 (CDM), the client should make available pre-construction information at the earliest stage of the project.</i> | |
| (a) | Outline the purpose of pre-construction information. | (3) |
| (b) | Outline the requirements for pre-construction information. | (2) |
| (c) | With reference to the hotel refurbishment, outline the possible content of the pre-construction information. | (5) |

This question assessed candidates' knowledge and understanding of learning outcome 9.2: Explain the scope and application of the Construction (Design and Management) Regulations 2015 (Explain the scope and application of the Construction (Design and Management) Regulations 2015 and associated guidance, in the 2015 specification).

For part (a) candidates were expected to outline that the information was to assist designers and contractors in preparing a bid. Information generated at this stage may then become part of the health and safety file. While the question asked for the *purpose* many candidates gave the typical contents, which did not gain sufficient marks.

Part (b) was not well answered. The question asked about the requirements of the pre-construction information that were based on relevance, appropriate level of detail and being proportionate. Many candidates repeated the answer to part (a) and did not gain marks.

The last section, part (c) was concerned with the contents of the pre-construction information and gained the most marks. Many candidates were able to give a reasonable answer that typically included drawings, surveys, materials, hazardous substances present such as asbestos and means of site access.

Generally a question that candidates found challenging. Parts (a) and (b) attracted few marks and those candidates who did gain marks did so mostly on part (c).

Question 6 *A fixed guard needs to be removed more frequently than expected, so an interlocked guard is being considered as an alternative.*

(a) **Describe** characteristics of an interlocked guard. (5)

(b) **Outline** limitations that the organisation may encounter with interlocked guard systems. (5)

This question assessed candidates' knowledge and understanding of learning outcome 6.3: Describe protective devices found on general workplace machinery (Outline the main types of protective devices found on general workplace machinery, in the 2015 specification).

The two parts of the question were aimed firstly at assessing the understanding of how different types of machinery guarding protective devices worked and secondly the practical limitations of this particular type of protective device, an interlocked guard.

For part (a) the effects on machine operation of a guard being open or closed on startup, the effect of opening or attempting to open a guard while a machine is in operation and the effects of guard locking where the protective device becomes physically locked to prevent access while the machine is operation would all have gained marks.

Part (b) looked at the limitations of such a system and the steps that an organisation might need to put in place to help ensure continued safe operation of the protective device. This might include maintenance, prevention of operator interference, environmental conditions and their effect on interlock performance and how possible physical damage may affect operation. Some candidates mentioned loss of production, Captive and Trapped key systems and even outlined fixed guarding.

On the whole the majority of responses were limited for this question.

Question 7 *A number of lights in a storage warehouse have failed and need replacing. The lights are at a height of 5 metres.*

Outline factors that should be taken into consideration when replacing the lights to help reduce the risk of work at height. (20)

This question assessed candidates' knowledge and understanding of learning outcome 1.5: Explain the hazards, risks, and controls when working at heights (equivalent to 1.4 in the 2015 specification).

Those candidates who utilised a structured approach and formed their answers around the hierarchy of 'avoid work at height, prevention of falls or falling objects and minimising the distance or mitigating the effects' managed to gain good marks.

For 'avoid' such topics as light fittings that could be lowered, long life (eg LED) bulbs to reduce the need for access, use of poles to change bulbs, etc all gained marks. Fall prevention was covered by the use of powered access equipment, scaffold towers, ladders and step ladders, and competency of operators were required.

For fall mitigation, such topics as fall arrest, safety nets, soft landing systems were required. General topics included means of preventing dropping tools and equipment, use of contractors or own work force and emergency procedures. Marks were also given for items such as avoidance of electric shock, glass cuts from bulb breakages, overhead obstructions, etc.

A very popular question, attempted by nearly all candidates. Many candidates had difficulty in obtaining high marks by not structuring their answers. Some candidates gave their answers in a listing, missing the requirement for an 'outline' of the factors needed. This inevitably meant fewer marks could be awarded. While the topic of work at height is a common topic those candidates who achieved better marks did so by structuring their answers to match the hierarchy of controls mentioned above.

Question 8

A manufacturer is intending to place on the market a standalone machine tool covered by the self-assessment process, for use at work within the European Economic Area.

- (a) **Outline** the general conditions that must be met before supplying the machine. (4)
- (b) **Outline** the contents of the technical file. (10)
- (c) **Outline** the contents of the declaration of conformity. (6)

This question assessed candidates' knowledge and understanding of learning outcome 6.1: Describe the principles of safety integration and the considerations required in a general workplace machinery risk assessment (Outline the principles of safety integration and the considerations required in a general workplace machinery risk assessment, in the 2015 specification).

This question was based on the requirements of the Supply of Machinery (Safety) Regulations 2008 and a sound knowledge of the Regulations would have helped candidates achieve high marks.

Part (a) was intended to draw responses based directly on the requirements of the regulations, namely compliance with the Regulations (Reg. 7 in particular), ensuring the machine is safe, satisfying EHSRs, providing a technical file, etc. Knowledge of the CE marking procedure would have helped gain high marks.

The contents of the technical file required in part (b) would be the recording of the stages that a manufacturer would have to go through during the design process of a new machine and would involve design calculations, test results, standards met, drawings and schematics of the machine, etc. This is to demonstrate that the manufacturer has indeed followed the necessary design steps to ensure safe operation of the machine.

A declaration of conformity is required for all new machinery placed on the market in the EU and is generally included with most consumer products. Therefore it is expected that candidates will have come across this not only in their studies but in day-to-day life. Apart from a general statement declaring that the machine meets the requirements of the EU directive, candidates would have also gained marks by covering such topics as the manufacturer's name and address, description of the machine, standards met and the position and name of the person signing the declaration.

Few candidates tackled this question and those who did had difficulty outlining a sufficient number of points to gain high marks. Some candidates did not achieve many marks due to listing their answers and not meeting the requirement of the command word 'outline'.

Question 9 *An inspector from the local fire authority is reviewing the fire risk assessment of a clothing manufacturer.*

- (a) **Outline** the expected contents of such a fire risk assessment. (15)
- (b) **Outline** actions the inspector could take if the fire risk assessment is found to be unsatisfactory. (5)
-

This question assessed candidates' knowledge and understanding of learning outcomes 3.1: Outline the main legal requirements for fire safety in the workplace; and 3.2: Explain the processes involved in the identification of hazards and the assessment of risk from fire.

This question was centred on a clothing manufacturer and the requirements for a fire risk assessment. Answers to part (a) should have included typical items and topics that should be covered by the fire risk assessment, and in part (b) the options open to a Fire Inspector regarding the assessment.

In part (a) those candidates who structured their approach by grouping hazards generally gained higher marks. Hazards grouped under the following headings: sources of ignition, flammable materials, sources of oxygen, people, and means of escape gained marks. Many candidates did not refer to the given scenario in their answers and could not achieve all marks available.

For part (b) candidates were expected to outline a range of options from giving advice (verbal or written), issue of notices and prosecution.

A popular question but in part (a) candidates could have achieved higher marks by structuring and grouping their contents answer and paying attention to the scenario given. In part (b) there was confusion between a Health and Safety 'Improvement Notice' and a Fire Safety 'Enforcement Notice'. This suggests that course providers are not making a sufficiently clear distinction between the powers of Health and Safety Enforcement Officers and Fire Safety Enforcement Officers and enforcement options under the respective regulations.

Correct application of the command word 'outline' would have also helped some candidates to achieve higher marks, their answers were often limited by 'listing' topics that needed further explanation.

Question 10 *A mobile elevating work platform (MEWP) is used when erecting a steel-framed building.*

Outline control measures that should be considered to help minimise risk when using MEWPs. (20)

This question assessed candidates' knowledge and understanding of learning outcome 7.3: Describe the main hazards and control measures associated with commonly encountered access equipment and equipment for working at height (Outline the main hazards and control measures associated with access equipment and equipment for working at height, in the 2015 specification).

Candidates were expected to cover a number of topics such as competency, control of access to the MEWP, fall prevention, the working area and flooring conditions, overhead and buried services, emergency measures, maintenance and daily checks and the application of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).

The question also looked at the application of knowledge to a given scenario, ie the use of MEWPS in this scenario is to lift operatives to a position where they can attach steel joists to frames, usually by bolts, the joists being lifted by a separate crane. While this is a common fabrication process many candidates were not familiar with the system of work and some referred to the MEWP lifting the steel joists.

Overall a popular question and generally well answered. Some candidates did not reach high marks because they limited the number of topics they covered and did not achieve the breadth of response required.

| | | |
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| Question 11 | <i>A golf course management team proposes to store 3.6 tonnes of a chemical fertiliser, which is an oxidising substance, in a single-storey building. The chemical fertiliser is delivered to the golf course in bags known as flexible intermediate bulk containers (FIBCs). Each bag contains 600kg of chemical fertiliser.</i> | |
| (a) | Outline properties of an oxidising substance. | (3) |
| (b) | Outline the effects of oxidising substances on fire and explosion mechanisms. | (4) |
| (c) | Other than fire and explosion, identify risks when storing the chemical fertiliser. | (3) |
| (d) | Outline principles of safe intermediate storage of chemical fertiliser in the single-storey building. | (10) |

This question assessed candidates' knowledge and understanding of learning outcomes 4.2: Outline the main principles of the safe storage, handling and transport of dangerous substances; and 2.1: Outline the properties of flammable and explosive materials and the mechanisms by which they ignite.

Part (a) was looking to assess candidates' knowledge of the definitions and properties of oxidising substances. The physical description, or its form, was covered, as was the effect it has on other substances, in particular yielding oxygen and causing combustion.

Part (b) was looking for more depth as to how an oxidising substance affects reactions and answers could have included: fast production of heat, widening of flammable ranges, lowering of ignition temperature, intensification of the reaction, etc.

Part (c) was looking at other risks such as skin, eye or respiratory irritation, security risks and environmental risks.

Part (d) asked for control measures that could be employed and addressed storage requirements, segregation, security and avoidance of heat sources.

This question was the least popular on the question paper with few candidates attempting it. Candidates achieved mixed marks but most candidates did not attain high 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

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.



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