

January 2016

Examiners' Report

NEBOSH National
Diploma in
Occupational Health
and Safety - Unit B



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NEBOSH NATIONAL DIPLOMA IN OCCUPATIONAL HEALTH AND SAFETY

UNIT B: HAZARDOUS AGENTS IN THE WORKPLACE

JANUARY 2016



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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) regulatory requirements.

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

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General comments

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

There are 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 2016.

Feedback is presented in these key areas; examination technique, command words and learning outcomes 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 B 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 B 'Example question paper and Examiners' feedback on expected answers' which provides example questions and details Examiners' expectations and typical areas of underperformance.

Unit B

Hazardous agents in the workplace

Candidate performance

This report covers the examination sitting in January 2016.

Learning outcomes

Question 1

6.1 Explain the basic physical concepts relevant to noise

6.4 Explain the principles of controlling noise and noise exposure

This question tested candidates' understanding of key terms associated with the basic concept of noise. The question also required them to apply their understanding of adding noise levels in a practical situation. Many candidates had difficulty in giving concise meanings of the key terms. Some candidates did not understand the logarithmic scale used for decibels and therefore could not demonstrate how to 'add' two equal noise levels together.

When commenting on the implications of this additive noise level in relation to the Control of Noise at Work Regulations; it was clear that few candidates had a good understanding of the legal requirements at the lower and upper exposure action values (EAV). For example, when noise exposure is above the lower EAV but below the upper EAV hearing protection should be made available **on request**.

There continues to be a problem with accuracy and perhaps understanding of the units associated with noise levels and noise dose. Candidates frequently quote the numbers '80' and '85dB' without further qualification of the relevant terms. Crouse providers should confirm that students do understand the difference between L_{Aeq} and $L_{EP,d}$ and that they use the correct term in the correct context. Marks will not be awarded for dB values without the correct terms that explain them.

Overall, performance for this question was below average.

Question 2

8.4 Explain the identification and control of work-related violence/aggression with reference to legal duties

This question produced generally good answers. Considering practical guidelines to be followed by a worker visiting clients in their own homes, presented little difficulty to most candidates.

Candidates appreciated the risks of violence and aggression that such workers can face and were therefore able to include in their answers a good range of practical steps to reduce these risks during this type of work activity.

The only area of weakness occurred when some candidates wrote in detail about policies in relation to violence and aggression rather than focusing on practical guidelines for the workers in the scenario given.

Overall performance for this question was well above average.

Question 3

5.2 Explain the assessment and control of risk from exposure to biological agents at work

This question focused on the specific biological agent Hepatitis B. Practical guidelines were asked for and most candidates were able to provide a good range of these in relation to the scenario given in the question.

In a few instances marks were not good because answers remained too vague, for diploma level. For example, mentioning the need for personal protective equipment without a specific and relevant type being specified, is not mark worthy. Some responses were inaccurate, for example suggesting the use of anti-bacterial wipes or soaps as a means of combatting exposure to a virus, and were not worthy of marks.

Candidates should appreciate there is a difference between control measures that minimise or reduce the risk of exposure and control measures that minimise or reduce the effects of exposure. Immunisation for Hepatitis B falls into the latter of these two statements.

The overall performance for this question was average.

Question 4

7.3 Explain the effects of exposure to ionising radiation, its measurement and control

The first part of this question assessed candidates' understanding of some technical terms listed in learning outcome 7.3. These terms explain the effects of exposure to ionising radiations have always been part of the Element 7 syllabus. Radiation, in particular ionising radiation, remains the least favoured and perhaps the least understood area of the Unit B syllabus. Course providers need to find ways to make this area of the syllabus more accessible to candidates, many of whom will never encounter ionising radiation in their day-to-day work.

The use of thermo-luminescent devices (TLDs) to monitor exposure to ionising radiations was understood by some candidates. A few candidates insisted on writing about film badges instead and course providers should note that in the revised diploma syllabus, examinable in 2017, only TLD's are cited.

Some candidates confused gravimetric and colour-metric monitoring techniques used for hazardous substances (see element 4) with TLDs. This suggests a significant misunderstanding that course providers and candidates need to address.

Candidates also had difficulty relating the use of TLDs with the requirements of the Ionising Radiations Regulations. A number of key points about how TLDs are used relate directly to these legal requirements. For example, the requirement to use an approved dosimetry service and to keep records of the results for a specific period of time.

Overall performance for this question was very limited.

Question 5

4.3 Outline the principles of biological monitoring

Whenever questions about biological monitoring are asked a significant number of candidates demonstrate confusion by responding in relation to biological agents. This is a persistent trend that needs to be addressed. It is possible that this is a consequence of the syllabus chronology as biological monitoring is in learning outcome 4.3 in the syllabus, which is then immediately followed by element 5 on biological agents, and this is something to be considered by course providers in the presentation of course materials.

The first two parts of this question covered the term '*biological monitoring*' and the circumstances in which it is appropriate to carry out such monitoring. Few candidates appreciated that biological monitoring is particularly important when exposure occurs by routes other than inhalation.

Candidates are expected to be able to explain the role of biological monitoring guidance values (BGMV's). Many candidates appreciated that they are cited in EH40 but few understood that BMGVs are non-statutory values provided as guidance, as the term BMGV implies. Few candidates appreciated that exceeding a BMGV does not carry any particular penalty or duty to remove an individual from a workplace. Instead it would be considered good practice to further investigate the reasons for the BMGV being exceeded and determine if control measures or work methods could be improved.

A number of candidates appeared confused about BMGVs and instead wrote at length about statutory biological limits for lead, which was not required in response to this particular question. Again, course providers need to consider how best to distinguish between BMGVs and statutory biological limits when presenting course materials to students.

The overall performance was below average.

Question 6

11.2 Outline the principles and benefits of vocational rehabilitation including the role of outside support agencies

This question guided candidates to give an outline of the barriers to work set out on the biopsychosocial model. Those candidates who took the guidance from the question wording gained marks easily by both naming the three barriers (biological, psychological and social) and relating these to real issues that the barriers represent.

Within learning outcome 11.2 candidates should have considered the benefits to an employee who has undergone vocational rehabilitation, as well as having an appreciation of those organisations and agencies can assist in this process.

This was a straightforward question that did not require in-depth knowledge, as is indicated by the command word 'outline' in learning outcome 11.2. Performance against this question was just below average.

Question 7

2.3 Explain the additional requirements for asbestos and lead

11.3 Outline the management of occupational health (including the practical and legal aspects)

4.1 Explain workplace exposure limits (WELs), the means by which they are established, and their application to the workplace

This question required candidates to have a good working knowledge of the requirements of the Control of Asbestos Regulations 2012, which now divides asbestos-related work into three groups, licensed, non-licensed and notifiable non-licensed work (NNLW).

This was not a popular question choice within section B, perhaps because few candidates had a sufficiently detailed working knowledge of these Regulations in practice.

Those candidates who did choose this question had a reasonable understanding of what constitutes non-licensed work and the basic precautions to be taken with this type of work. This information is readily available on the HSE's asbestos essentials website, one of the named references for this part of the syllabus.

There was generally a lack of knowledge about the requirements for monitoring the health of workers involved in licensed asbestos work. While this is a specialist contractor task there is an expectation that a safety practitioner, who could be involved in selecting specialist contractors, should understand the requirements these contractors must meet. Otherwise, the safety practitioner cannot make a judgement about the competence of the specialist contractors.

Understanding about the relatively new class of asbestos work (NNLW) was very patchy and so candidates had difficulty in addressing the final part of this question.

The overall performance against this least popular question was very poor.

Question 8

1.4 Explain the health effects of chemicals used in the workplace

2.1 Outline the factors to consider when assessing risks from hazardous substances

2.2 Explain the control measures for hazardous substances

11.3 Outline the management of occupational health (including the practical and legal aspects)

This question brought together a range of knowledge across 4 learning outcomes of the Unit B syllabus. Just over half of the candidates sitting this paper chose to answer this question that was about isocyanates.

Isocyanates are cited in learning outcome 1.4 as one of a number of named substances about which diploma candidates are expected to have some knowledge. Almost half of the marks in this question were based on the reference to the health effects of isocyanates in element 1 and the general requirements for health surveillance in learning outcome 11.3.

The remainder of the marks were available for a description of control measures relevant to the scenario in which isocyanates were being used as sprayed paints. When answering control measure questions for hazardous substances it is a good approach to use the general hierarchy of control that is in learning outcome 2.2 of the diploma syllabus. However, at diploma level it is expected that a description of the control measure hierarchy is presented in sufficient depth, and is greater than the depth that would be expected in a certificate level answer. Many candidates who addressed this part of the question provided little more than certificate level answers and did not address the command word 'describe'. A number of the relevant control measures relating to ventilation, personal protective equipment and respiratory protective equipment are covered elsewhere in the syllabus. NEBOSH have taken into consideration the scope of the syllabus in learning outcome 2.2, when allocating marks to one part of this question, so that candidates have not been unduly disadvantaged.

Course providers are reminded that 'COSHH essentials' is cited as a tutor reference and that within that facility on the HSE website there are a large number of direct advice sheets. A number of these sheets relate to substances listed in learning outcome 1.4 of the syllabus. (For isocyanates, see sheet direct advice sheet MR02).

The overall performance was well below average.

Question 9

10.1 Explain the need for, and factors involved in, the provision and maintenance of thermal comfort in the work environment

Candidates were required to use their understanding of thermal comfort, heat indices and practical control measures for cold environments.

A significant number of candidates chose to answer this question and they performed well when responding to some parts of the question. However, sometimes the terminology used in their responses was not accurate enough to gain marks. When identifying factors that affect thermal comfort it is necessary to use the correct terminology for example, air velocity. Alternatives such as wind speed, or air movement, etc are not sufficiently accurate.

The role of heat indices has been examined previously and again candidates found it difficult to express this in a form of words that could gain marks. The key points to appreciate are that this provides a single number representation of a number of different parameters and that it is an objective measure of a thermal environment (not a subjective one).

Practical control measures for work in cold environments were generally described well.

The overall performance for this question was average.

Question 10

9.2 Explain the assessment and control of risks from repetitive activities, manual handling and poor posture

This question was the most popular choice in section B with well over half the candidates selecting it. Manual handling assessment and its application in a real situation provided the opportunity for candidates to apply their knowledge. A number of candidates clearly had some knowledge of the risk factors to consider during a manual handling risk assessment, based on the task, individual, load, environment (TILE) approach. However, few candidates could apply these to the particular everyday scenario given in this question. Simply stating the TILE risk factors alone did not gain marks.

When scenarios are presented in questions candidates should always relate to the scenario when making their response. In this particular question the requirement to do this was emphasised through the repeated use of the word 'these' in the question.

This question also used the command word 'comment' which means *'to give opinions (with justification) on an issue or statement by considering the issues relevant to it.'*

There is often more than one opinion that can be given and the justifications given about each opinion can help to weigh up one opinion against another. Often, candidates looked narrowly at the situation given, from one opinion or direction, so limited the marks that they gained in this final part of the question.

The overall performance for this question was just below average.

Question 11

7.4 Explain the different sources of lasers found in the workplace, the classification of lasers and the control measures

The final question on the paper assessed candidates' knowledge and understanding of lasers in a leisure setting. This is not a new area for an examination question, but one part of this particular question required a more detailed explanation of how lasers can be hazardous to the eyes. It was a lack of this more detailed explanation that meant some candidates did not perform well. Learning outcome 7.4 requires an explanation of both the routes and effects of exposure for lasers. Simply stating that 'lasers burn the eyes' was not a sufficient response. A sufficiently detailed explanation includes: lasers are a coherent light beam, produced as a single wavelength that forms a small highly focused image on the retina, for which the normal blinking response provides no protection.

Candidates generally found the outline of control measures for lasers in the scenario given a more straight-forward request. However, technical detail was limited and few candidates mentioned the term 'MPE value' (maximum permissible exposure) in their response.

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 suggested 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 which 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.

Most candidates were unable to explain their answers in sufficient detail or appeared to become confused about what they wanted to say as they wrote 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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