NEBOSH

MANAGEMENT OF HEALTH AND SAFETY

UNIT IG1:

For: NEBOSH International General Certificate in Occupational Health and Safety

MANAGEMENT OF INTERNATIONAL HEALTH AND SAFETY

UNIT IGC1:

For: NEBOSH International General Certificate in Occupational Health and Safety
NEBOSH International Certificate in Construction Health and Safety
NEBOSH International Certificate in Fire Safety and Risk Management

Open Book Examination

Available for 24 hours

Guidance to learners

This is an open book examination. It is not invigilated, and you are free to use any learning resources to which you have access, eg your course notes, or a website, etc.

By submitting this completed assessment for marking, you are declaring it is entirely your own work. Knowingly claiming work to be your own when it is someone else's work is malpractice, which carries severe penalties. This means that you must **not** collaborate with or copy work from others. Neither should you 'cut and paste' blocks of text from the Internet or other sources.

The examination begins with a realistic scenario to set the scene. You will then need to complete a series of tasks based on this scenario. Each task will consist of one or more questions.

Your responses to **most** of these tasks should wholly, or partly, draw on relevant information from the scenario. The task will clearly state the extent to which this is required.

The marks available are shown in brackets to the right of each question, or part of each question. This will help guide you to the amount of information required in your response. In general, one mark is given for each correct technical point that is clearly demonstrated. Avoid writing too little as this will make it difficult for the Examiner to award marks. Single word answers or lists are unlikely to gain marks as this would not normally be enough to show understanding or a connection with the scenario.

You are **not** expected to write more than 3000 words in total.

Try to distribute your time and word count proportionately across all tasks.

It is recommended that you use the answer template.

Please attempt **ALL** tasks.

SCENARIO

You are a shift supervisor working for an organisation that makes specialist cheeses. The cheese is sold to workers and the public from a small on-site shop. The cheese is also distributed and sold through independent retailers and a large supermarket chain. The cheese manufacturing site where you work is in a small village, employs 180 workers and has been owned by the same family for over 100 years.

The road from the main entrance to the site opens onto a large, rectangular area of tarmac, used as a car park (although no parking bays are marked). Directly behind the car park area is a small office and the on-site shop. Behind the office and shop are three factory buildings. An internal road leads around, and to the rear of, these factory buildings. One of the factory buildings contains the milk storage and treatment vessels. Next to this is a large single storey building housing the cheese production area, cheese maturation area and storage room. At the rear of the site is the third factory building containing the packaging area and worker rest facilities. A storage compound exists at the rear of the site where the organisation's four delivery vehicles park. A second entrance at the rear of the site leads directly to the storage compound via a narrow access road.

The organisation operates two-shifts: 05.00 – 13.00, and 13.00 – 21.00. A tanker delivers milk to the site each morning and evening, pumping it into the two large storage vessels. The tanker can only access the site via the main entrance due to its size.

The organisation proudly uses traditional cheese making methods that have been used for many generations. Many aspects of the process are still done by hand. Part of the cheese-making process uses a large funnel-shaped milling-machine with a rotating spiked drum that breaks up the cheese mixture into smaller pieces. Each cheese produced weighs 8kg and is wrapped and boxed. It is then placed on wooden racks of shelves, for 10 weeks, to mature. Each rack of shelves can safely hold 100 of these cheeses.

Following the launch of a new product line, sales have been much higher than expected for the time of year. The number of customers visiting the on-site shop has increased by over 50%, and a new contract has been agreed to supply another supermarket chain on a three-month trial basis. Production rate is being increased to ensure fulfilment of all orders. There are plans to refurbish the rest facilities, update the storage areas, and to build an extension to the production building to increase storage capacity. As a temporary solution, management have instructed workers to store cheeses closer together on the existing wooden racking, which creates room for another 50 x 8kg cheeses per rack of shelving. To help meet the increase in orders an additional 30 workers have recently been employed on temporary 6-month contracts.

In the production and storage areas, experienced workers are paired up with temporary workers in a 'buddy system'. This enables them to learn correct working methods 'on the job' and be able to ask any questions. Although cheese-making recipes are formally documented, most work methods are not. There is great reliance on the knowledge held by many long-serving workers, all of whom are highly proficient in their roles. The site's manager regularly walks around the factories and is very approachable. They often talk to workers and listen to their concerns. Risk assessments are completed by management with input from workers. These documents are reviewed regularly and are stored in the office. Accident and incident rates are low, but when they do occur, records for these are also kept in the office.

During their induction, temporary workers are given a tour of the site. They are provided with written information on emergency procedures, first-aid arrangements and a copy of the health and safety policy (signed by the manager). They are given basic practical training on the correct use of mobile platform steps that are used in both the production and storage areas. Management recognises the importance of manual handling training for permanent workers. However, this training is not given to the temporary workers as they are not with the organisation long enough to warrant the time and expense.

The combination of more workers on each shift, and more customers visiting the on-site shop, has resulted in larger numbers of parked cars and some very poor parking. The driver of the milk tanker recently complained of struggling to manoeuvre past vehicles parked at the entrance and along the internal road. There are no signs or road markings to help people when walking to and from their cars. You agree the situation needs to improve because you are concerned for their safety.

The site's manager is always happy to listen to suggestions from workers. You decide to send an email to them suggesting that signs and road markings would help to show pedestrian routes to the shop and buildings. You also suggest that parking spaces and access areas should be marked out on the floor.

The following morning you arrive on site at 04.30 to carry out your usual check on stock levels. You open the door to the storage room to discover that overnight a wooden shelving rack has collapsed, damaging over 170 cheeses. Shocked at the horrendous mess, you are very thankful that this collapse happened when the site was shut, and no one was hurt or killed. Although all storage racking is due to be replaced as part of the refurbishment work, it has been regularly inspected. No concerns were raised at the last inspection 2 months ago, so you wonder what caused this.

You tell the manager immediately about the incident and they see the damage for themselves. They instruct you to delay the start of production to free up workers to help with the clean-up. After losing such a significant quantity of stock, the manager wants to minimise any production delays. Due to the amount of work involved with the clean-up, the manager wants the workers to complete the job quickly. They offer everyone working on the day (across both shifts) a bonus payment if the production target is still reached.

By working together as a team, everyone (including the manager) clears up the mess in the storage room quickly and efficiently. The manager thanks everyone for all their hard work. The workers are proud of what they have achieved and are keen to get production going again. This finally begins mid-morning. With so much time lost, everyone feels the pressure to try to catch up and reach the day's target, so they can get the promised bonus payment.

As a result of the time lost cleaning up, production continues longer than expected, meaning the separate task of cleaning the equipment is delayed.

One of the new temporary workers is 17 years old and it is their first full-time job. They have been with the organisation for just over a week. Although they are tired after such a busy shift, they are still keen to get the job done and go home. They decide to dismantle and clean one of the electric milling machines without the assistance of their 'buddy' (who is busy cleaning another machine). They know that this is something they are not supposed to do because all equipment cleaning tasks should be supervised. They have never done this task before and have not had the chance to watch anyone else do it either. However, they think it looks easy enough and believe it will show initiative and help them all to get home quicker.

Without isolating the power, and standing on a chair to gain access, they lean over the side of the large funnel structure and reach inside with both hands to remove the spiked drum. The chair moves under their weight and as they try to regain their balance, they accidently press the 'on' button with their knee. The spiked drum suddenly rotates, impaling the palm of the worker's right hand. Hearing the cries of pain, several workers rush across to help. They have little idea of what to do, but one worker does manage to press the emergency stop and then runs up to the office to get help. One of the office workers immediately calls for an ambulance.

The young worker was taken to hospital where they were treated for deep lacerations and soft tissue injuries to their hand. The arm was put in a sling to immobilise the hand for two weeks. During this time the young worker was off work, and the organisation contacted them to ask about their welfare and show support. At the same time, the organisation carried out an investigation into the accident. One of the main recommendations was to consider using a permit-to-work system for all milling machine cleaning activities. The experienced workers and managers hold an emergency meeting about what needs to be in place for this proposed permit-to-work system to work in practice.

They initially agree on six essential features: the need for a permit-to-work system for this task; a documented procedure; a multi-copy permit documentation system; clear specification of controls; a system of continuous control; and a formal hand-back procedure to restore normal milling machine operation.

Task 1: Actions of a labour inspector

1 It is common for the labour inspectorate to ask labour inspectors to visit a workplace following notification of a workplace injury.

(a) What are the functions of labour inspection? **(5)**

(b) What are the actions the labour inspector could take following a visit? **(5)**

Task 2: Indicators of health and safety culture

2 What are the positive indicators of health and safety culture in the organisation? **(15)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

Task 3: Actions following the collapse of the storage racking

3 Following the discovery of the collapsed storage racking, no one secured the scene.

(a) Why is it important to secure the scene of this near miss? **(6)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

(b) Why should this near miss have been investigated? **(15)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

Task 4: Human factors contributing to the accident with the milling machine

4 What *individual* human factors could have influenced the behaviour of the young worker injured while cleaning the electric milling machine? **(15)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

Task 5: Knowledge of emergency procedures

5 What are the possible reasons for a general lack of knowledge about emergency procedures across the organisation? **(10)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

Task 6: Workers' responsibilities in the workplace

6 The injured worker may have contravened some of their responsibilities as a worker within International Labour Organisation Convention C155 – Occupational Safety and Health Convention, 1981 (No.155) Article 19 and associated Recommendation R164 – Occupational Safety and Health Recommendation, 1981 (No.164) recommendation 16.

Comment on the extent to which Article 19 of C155 and recommendation 16 of R164 may have been contravened. **(9)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

Task 7: How a permit-to-work system works in practice

7 Some of the essential features that need to be in place, for a permit-to-work *system* to work in practice, were agreed at the emergency meeting.

Suggest **TEN** additional essential features. **(10)**

Task 8: Review of the health and safety management system

8 Why does this organisation need to urgently review its health and safety management system? **(10)**

Note: *You should support your answer, where applicable, using relevant information from the scenario.*

End of examination

Now follow the instructions on submitting your answers.