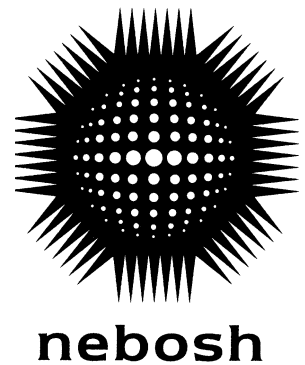


NEBOSH

MANAGEMENT OF HEALTH AND SAFETY

UNIT IG1:

For: NEBOSH International General Certificate in Occupational Health and Safety



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 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

A popular theatre is located in a city centre. It presents a variety of productions throughout the year. It employs 65 workers across several production and hospitality departments.

The stage manager's (SM's) role is to manage the teams involved in the day-to-day running of the theatre's productions, from rehearsals through to performances. This includes managing the following workers:

- sound technicians - who prepare and manage sound equipment;
- lighting technicians - who are responsible for rigging, operating, and maintaining stage lighting equipment;
- stage technicians - who build, maintain, and move props and scenery;
- wardrobe workers - who create, alter, and mend costumes.

The SM is also responsible for the health and safety of these workers. The SM is very proud of the theatre's productions. They expect workers to produce the best productions possible with the available resources. This often involves working outside of their contracted hours to complete individual tasks.

Recently, the lead lighting technician resigned, after a disagreement with the SM about working outside of their contracted hours. Unfortunately, this was during a six-month run of a production. However, the lighting for this production was already computer-programmed, so there was minimal extra work required. The lead lighting technician had trained the only other lighting technician, a young apprentice, to operate the lighting system.

During an evening performance of this production, the apprentice noticed that a section of the overhead stage lighting was not working. They reported this to the SM who said "*you are in charge of lighting, so fix it by tomorrow*". The apprentice explained that it needed to be repaired manually, but they had not been trained to do this yet. Frustrated, the SM shouted at the apprentice that they would deal with it in the morning.

Contractor visit

The next day, the SM researched local lighting contractors and began telephoning to enquire about whether a contractor would be available that same day to carry out the lighting repair. Out of the five contractors that they spoke to, only one of these was available before that evening's performance. During the short telephone call, the contractor confidently assured the SM that they could complete the work. What the contractor failed to report, however, was that they had never worked on theatre lighting before.

The contractor arrived at the theatre and told a worker that they were there to carry out a lighting repair. The worker found the SM backstage to inform them of the contractor's arrival. The SM told the lighting technician apprentice to co-ordinate with the contractor.

The apprentice showed the contractor to the stage area. Using a nearby control panel, the apprentice lowered the motorised rigging that held the lighting in place above the stage. They showed the contractor which section of lighting was not working and pointed out the nearby storage area where replacement parts were kept. The apprentice was then called away to carry out another task by the SM.

After examination of the faulty lighting, the contractor identified that the LED lights were overheating and activating the electrical protection that switched them off. The reason for them overheating was that one of the metal fans for cooling them, in the overhead rigging, was not cooling efficiently. The contractor found a replacement fan from the storage area, removed the faulty fan and quickly installed the replacement. Once finished, they used the control panel that they had seen the apprentice use to raise the motorised rigging back into place. The contractor asked a nearby worker to let the SM know that they had finished the repair and had to leave for another job.

Lighting equipment accident

That evening, the stage and backstage areas were busy with workers preparing for the evening performance. Workers from all departments were constantly walking across the stage area to complete tasks. Two of the stage technicians were manually moving large props into position on the stage.

At the same time, the apprentice was carrying out pre-show checks of the lighting equipment. When operated, the previously-faulty lighting appeared to be working correctly. However, after being switched on for a few minutes the replacement cooling fan became loose and fell from the rigging. Unfortunately, the fan struck one of the stage technicians on the head. The injured worker was taken to hospital, and the other stage technician was visibly distressed. Despite this, the SM instructed all production workers to continue preparing for the evening's performance.

As a result of the serious injury, the stage technician never returned to work.

Local labour inspector visit

Following the accident, a local labour inspector schedules a visit to the theatre. On the day of the visit, they are greeted by the SM. The inspector asks for the accident and incident records, and risk assessments for the production areas and activities. They note that there are very few accident and incident records, despite the file dating back five years. They also note that the risk assessments were reviewed over six years ago.

The inspector asks to see the scene of the recent accident. They ask the SM to lower the lighting rigging. They examine the lighting section that was repaired by the contractor and take photographs of the rigging and surrounding area. They identify that most of the lighting equipment looks worn and is covered in dust. The SM explains that they have not had time to replace the lead lighting technician, but the apprentice has been able to cover basic work tasks.

The inspector asks to speak to all of the production workers privately. When speaking to the apprentice, the inspector learns that they are not fully qualified. The apprentice feels that they are under pressure to work without a lead lighting technician. They felt that their job would be at risk if the SM thought they were being difficult.

After speaking to the rest of the production workers, the inspector identifies that workers often feel pressured to bypass the set processes and carry out tasks beyond their skill levels. The inspector also discovers from workers that this was not the first time that overhead equipment had failed and fallen onto the stage. The inspector questions why these near misses were not recorded in the accident book. They are told that the SM discourages recording such events if no one was hurt. As this is a respected theatre in the industry, most workers do not want to risk their jobs by angering the SM.

At the end of the visit, the inspector tells the SM that the overhead lighting is not to be used until further investigation and issues an order requiring alterations. The SM objects, saying that it is needed for the production, but the inspector confirms that the notice will stay in force. Copies of maintenance procedures, accident records and incident records are taken away by the inspector.

Following the visit, the inspector decides that even though accidents involving the overhead lighting are infrequent, they pose a significant risk. They arrange for a second visit to the theatre, with a theatre lighting specialist, to further inspect all the stage lighting equipment. Once carried out, this confirms that the replacement cooling fan had not been installed correctly. They also find other stage lighting equipment has not been maintained properly, with some parts worn, and others showing signs of deterioration. As a result of the investigation, the theatre, the SM, and contractor are prosecuted and fined.

Task 1: Approach to selecting contractors

- 1 Comment on why the SM's approach to *selecting* a contractor is inadequate. (14)
Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 2: Identifying the influence of job factors

- 2 What *job* factors of the lighting repair task are likely to have contributed to the accident? (10)
Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 3: Labour inspection

- 3 Comment on how the local labour inspector exercised their powers. (8)
Note: Your answers must be based on the scenario only.

Task 4: Secure the scene of the accident

- 4 (a) Why *should* the scene have been secured immediately after the accident? (6)
Note: You should support your answer, where applicable, using relevant information from the scenario.
- (b) What *should* the SM have done to secure the scene immediately after the accident occurred? (3)
Note: Your answers must be based on the scenario only.

Task 5: Determining management failures contributing to the accident

- 5 Comment on how management failures could have contributed to the lighting equipment accident. (15)
Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 6: Application of risk assessment

- 6 (a) What are the main types of workers the SM should take account of in a new risk assessment of the stage area? (3)
- Note: You should support your answer, where applicable, using relevant information from the scenario.*
- Note: You do **not** need to specify the worker's job title (such as supervisor, manager, etc), it is the type of worker (such as a migrant worker, etc) that would need to be considered.*
- (b) What arguments could be used to persuade the SM to become more involved in risk assessments? (8)

Task 7: Health and safety management responsibilities

- 7 The SM has health and safety responsibilities in their role. (6)
- How did they *not* fulfil these responsibilities?
- Note: Your answers must be based on the scenario only.*
- Note: You should focus on responsibilities and **not** the health and safety management system.*

Task 8: Recognising change and its impacts

- 8 (a) What changes have occurred at the theatre that may require management of change controls? (5)
- Note: You should support your answer, where applicable, using relevant information from the scenario.*
- (b) What should the organisation consider when planning significant changes? (7)

Task 9: Reviewing first-aid arrangements

- 9 The local labour inspector has recommended that the organisation reviews first-aid arrangements at the theatre. (15)
- Comment on what should be considered in a review to determine if first-aid provision is realistic and proportionate at the theatre.
- Note: You should support your answer, where applicable, using relevant information from the scenario.*
- Note: You do **not** need to itemise specific first-aid equipment.*

End of examination

Now follow the instructions on submitting your answers.

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