# NeboshlogochamNEBOSH

**MANAGEMENTOFHEALTHANDSAFETY UNIT IG1:**

**For:NEBOSHInternationalGeneralCertificateinOccupationalHealthandSafety**

**OpenBookExamination Available for 24 hours Guidance to learners**

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Theexaminationbeginswithascenariotosetthescene.Youwillthenneedtocompleteaseriesof tasks based on this scenario.Each task will consist of one or more questions.

Yourresponsesto**most**ofthesetasksshouldwholly,orpartly,drawonrelevantinformationfromthe 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. Thiswillhelpguideyoutotheamountofinformationrequiredinyourresponse.Ingeneral,onemark 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.

Youare**not**expectedtowritemorethan3000wordsintotal.

Trytodistributeyourtimeandwordcountproportionatelyacrossalltasks. It is recommended that you use the answer template.

Pleaseattempt**ALL**tasks.

**SCENARIO**

Apopulartheatreislocatedinacitycentre.Itpresents avarietyofproductionsthroughouttheyear. It employs 65 workers across several production and hospitality departments.

Thestagemanager’s(SM’s)roleistomanage theteamsinvolvedintheday-to-dayrunningofthe theatre’s productions, from rehearsals through to performances.This includes managing the following workers:

* soundtechnicians-whoprepareandmanagesoundequipment;
* lighting technicians - who are responsible for rigging, operating, and maintaining stage lighting equipment;
* stagetechnicians-whobuild,maintain,andmovepropsandscenery;
* wardrobeworkers-whocreate,alter,andmendcostumes.

TheSMisalsoresponsibleforthehealthandsafetyoftheseworkers.TheSMisveryproudofthe 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,thelightingforthisproductionwasalready computer-programmed,sotherewasminimal 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 overheadstagelightingwasnotworking.TheyreportedthistotheSMwhosaid *“youareincharge of lighting, so fix it by tomorrow”*.The apprentice explained that it needed to be repaired manually, buttheyhadnotbeentrainedtodothisyet.Frustrated,theSMshoutedattheapprenticethatthey would deal with it in the morning.

# Contractorvisit

The next day, the SM researched local lighting contractors and began telephoning to enquire about whetheracontractorwouldbeavailablethatsamedaytocarryoutthelightingrepair.Outofthefive contractors that they spoke to, only one of these was available before that evening’s performance.

Duringthe shorttelephonecall, thecontractor confidentlyassuredtheSMthatthey couldcomplete thework.Whatthecontractorfailedtoreport,however,wasthattheyhadneverworkedontheatre lighting before.

The contractor arrived at the theatre and told a worker that they were there to carry out a lighting repair.TheworkerfoundtheSMbackstagetoinformthemofthecontractor’sarrival.TheSM 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 sectionoflighting was notworking and pointed out the nearby storage areawherereplacementpartswerekept.Theapprenticewasthencalledawaytocarryoutanother 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 apprenticeusetoraisethemotorisedriggingbackintoplace.Thecontractoraskedanearbyworker to let the SM know that they had finished the repair and had to leave for another job.

# Lightingequipmentaccident

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 completetasks.Twoofthestagetechniciansweremanuallymovinglargepropsintopositiononthe stage.

Atthesametime,theapprenticewascarryingoutpre-showchecksofthelightingequipment.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,thefanstruckoneofthestagetechniciansonthehead.Theinjuredworkerwastaken 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.

Asaresultoftheseriousinjury,thestagetechnicianneverreturnedtowork.

# Locallabourinspectorvisit

Following the accident, a local labour inspector schedules a visit to the theatre.On the day of the visit,they aregreeted bythe SM.The inspectorasks for the accident and incident records, and risk assessmentsfortheproductionareasandactivities.Theynotethatthereareveryfewaccidentand 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 oftheriggingandsurroundingarea.Theyidentifythatmostofthelightingequipmentlookswornand 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,theinspectorlearnsthattheyarenotfullyqualified.Theapprenticefeelsthattheyare underpressuretoworkwithoutaleadlightingtechnician.Theyfeltthattheirjobwouldbeatriskif 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 accidentbook.They aretold thattheSMdiscourages recording such events if no one was hurt.As thisisarespectedtheatreintheindustry,mostworkersdonotwanttorisktheirjobsbyangeringthe 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 maintenanceprocedures,accidentrecordsandincidentrecordsaretakenawaybytheinspector.

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 confirmsthatthereplacementcoolingfanhadnotbeeninstalledcorrectly.Theyalsofindotherstage 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.

**Task1:Approachtoselecting contractors**

|  |  |  |
| --- | --- | --- |
| **1** | CommentonwhytheSM’sapproachto*selecting*acontractorisinadequate. | **(14)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |

**Task2:Identifyingtheinfluenceofjobfactors**

|  |  |  |
| --- | --- | --- |
| **2** | What*job*factorsofthelightingrepairtaskarelikelytohavecontributedtothe accident? |  |
|  | **(10)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |

**Task3:Labourinspection**

|  |  |  |
| --- | --- | --- |
| **3** | Commentonhowthelocallabourinspectorexercisedtheirpowers. | **(8)** |
|  | ***Note:****Youranswersmustbebasedonthescenarioonly.* |  |

**Task4:Securethesceneoftheaccident**

|  |  |  |
| --- | --- | --- |
| **4** | (a) Why*should*thescenehavebeensecuredimmediatelyafterthe accident? |  |
|  | **(6)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |
|  | (b) What*should*theSMhavedonetosecurethesceneimmediatelyafterthe accident occurred? | **(3)** |
|  | ***Note:****Youranswersmustbebasedonthescenarioonly.* |  |

**Task5:Determiningmanagementfailurescontributingtotheaccident**

|  |  |  |
| --- | --- | --- |
| **5** | Commentonhowmanagementfailurescouldhavecontributedtothe lighting equipment accident. |  |
|  | **(15)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |

**Task6:Applicationofrisk assessment**

|  |  |  |
| --- | --- | --- |
| **6** | (a) WhatarethemaintypesofworkerstheSMshouldtakeaccountofina new risk assessment of the stage area? |  |
|  | **(3)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |
|  | ***Note:*** *You do* ***not*** *need to specify the worker’s job title (such as supervisor,manager,etc),itisthetypeofworker(suchasamigrant worker, etc) that would need to be considered.* |  |
|  | (b) WhatargumentscouldbeusedtopersuadetheSMtobecomemore involved in risk assessments? | **(8)** |

**Task7:Healthandsafetymanagementresponsibilities**

|  |  |  |
| --- | --- | --- |
| **7** | TheSMhashealthandsafetyresponsibilitiesintheirrole. |  |
|  | Howdidthey*not*fulfiltheseresponsibilities? | **(6)** |
|  | ***Note:****Youranswersmustbebasedonthescenarioonly.* |  |
|  | ***Note:****Youshouldfocusonresponsibilitiesand****not****thehealthandsafety management system.* |  |

**Task8:Recognisingchangeanditsimpacts**

|  |  |  |
| --- | --- | --- |
| **8** | (a) Whatchangeshaveoccurredatthetheatrethatmayrequire management of change controls? |  |
|  | **(5)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |
|  | (b) Whatshouldtheorganisationconsiderwhenplanningsignificant changes? | **(7)** |

**Task9:Reviewingfirst-aidarrangements**

|  |  |  |
| --- | --- | --- |
| **9** | Thelocallabourinspectorhasrecommendedthattheorganisationreviews first-aid arrangements at the theatre. |  |
|  | Commentonwhatshouldbeconsideredinareviewtodetermineiffirst-aid provision is realistic and proportionate at the theatre. | **(15)** |
|  | ***Note:****Youshouldsupportyouranswer,whereapplicable,usingrelevant information from the scenario.* |  |
|  | ***Note:****Youdo****not****needtoitemisespecificfirst-aidequipment.* |  |

**Endofexamination**

Nowfollowtheinstructionsonsubmittingyouranswers.

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