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 from 03 February 2021, 09:00 GMT

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 co-ordinator for a behavioural safety audit (BSA) programme at a food manufacturing site. Behavioural safety is just one of a range of approaches that senior managers want to introduce to the site to change the organisation and improve health and safety. Successful implementation of the BSA programme is one of the occupational health and safety objectives for the whole site. Each BSA involves a trained observer who observes site workers, including contractors, carrying out a task. The observer looks for both safe and unsafe behaviour, as well as noting the general workplace conditions at the time. There is a follow-up conversation between site worker and observer, usually immediately after the observation. In this conversation, observers give praise to site workers on observed safe behaviour as well as considered verbal feedback on unsafe behaviour. The idea is to encourage safe behaviour and, if site workers are behaving unsafely, try to establish why they behave in that way and discuss what can be done to change it.

Your job is to co-ordinate the activities of ten trained observers across the site, one of whom is a young apprentice, and one an expectant mother with a child due in six months. The observers are workers who have volunteered to actively monitor their respective manufacturing department. They use a checklist of critical behaviours that were identified from studying past accidents and incidents in the organisation. The checklist is common to all departments to carry out daily BSAs. As co-ordinator, you collect the completed checklists daily, collate and evaluate data, and conduct weekly feedback meetings with workers in each department. All the associated forms, checklists and procedures are carefully version controlled.

You report to a supervisor who is not convinced of the value of the BSA programme. This same attitude is also shared by some of the other long-serving middle managers. You know that the introduction of the BSA programme will need careful management if it is to be accepted by your supervisor and the other managers. However, you do have the support of at least one member of the site senior management team, nominated as the site behavioural safety Champion. They have already provided resources for you to develop behavioural safety awareness training and ensured all 150 staff attended. Separate financial support was also provided for carrying out observer training for the ten volunteers. This included special communication facilities for an observer with hearing difficulties.

Your supervisor talks to you about an accident that occurred two weeks ago, where a contractor suffered a knee injury. The contractor works for a national contracting maintenance company and was brought on site to do a specific job. The supervisor thinks the accident is an obvious case of ‘human error’ that is not worth the time to investigate further. Your supervisor hands you the accident report to read and suggests that any reasonable person would come to the same conclusion. Reading the report, you note that the injured contractor was rescued by the site’s emergency response team, taken to hospital and was off work for a week. Your supervisor thinks that most accidents are unavoidable, and that people are to blame because they behave unsafely. You disagree and argue that blaming individuals is a mistake and demoralises the workforce. It is a core value of the BSA programme that the root cause of unsafe behaviour is often management failures, and these must be determined so that lessons can be learnt. Your supervisor asks you to investigate the accident further, confident that it will prove that it was all down to human error.

When the injured contractor is well enough to return to work, you arrange a meeting and ask some questions. Although the contractor has a lot of experience in contracting work, including involvement in permit-to-work systems at other sites, this was the first time they had worked at this food manufacturing site. You ask how the injury occurred. They reply that while adjusting a piece of equipment alone, they slipped on a working platform, made of scaffolding poles (tubes) and scaffold boards, that was erected by the contractor.

When you ask the contractor how they feel about being injured at work the reply really surprises you. They say: ‘It is accepted as part of our job, unsupervised, we live with the risks and accept the consequences, without complaint’. You respond by explaining that their employer and the food manufacturing site where they are working have a joint responsibility to care for them. The contractor confirms that, before starting the job, they had received specific induction training and job-specific

information from the site supervisor, although that was the last time that they saw them on that day. You also ask about the safety of the work environment and they indicate it appeared to be fine. You visit the accident scene and observe that oil, used by a site maintenance technician to lubricate equipment above the working area, has leaked onto the working platform below and coated the boards.

You discover that the work carried out by the contractor was done under the authority of a permit-to-work (PTW). So, you also decide to investigate how the permit system operated on that day. You ask the contractor about the sequence of events on the day of the accident. They recall that a job instruction was received, then the contractor walked to the site office where PTWs were written and issued. The contractor, trained in the responsibilities of what accepting a permit meant, presented a job description note to the manufacturing site's PTW issuer and a brief discussion took place. They appeared to be extremely busy, and the contractor overheard them say that they were issuing up to 75 PTWs a day!

The site's permit issuer talked with the contractor about the exact nature of the job and clarified understanding of the hazards and risks for the proposed task. The task appeared to be a low risk one to the permit issuer, and because of this and a high workload, they did not physically check the area where the task was due to take place. The self-duplicating PTW forms were duly completed and authorised, including relevant signatures. One copy was retained by the contractor, one copy put on display at the job site, and one kept as a record in the site office. The permit was issued to cover the period 09:00 - 17:00 that day. The contractor also told you that the permit issuer talked about associated control measures, including isolation of equipment before starting work and the wearing of head protection while working on equipment.

Your investigation concludes that there were many organisational management failures and only one identified human error. One of your recommendations is to review the original risk assessment for the maintenance of equipment above the working area, at the scene of the accident.

Task 1: Behavioural safety audits and the use of checklists

1 What are the benefits of using the checklist of critical behaviours during these behavioural safety audits (BSAs)? **(10)**

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

Task 2: Explaining to the contractor the obligations of employers to workers

2 What employer obligations are likely to have been contravened, leading to the contractor's accident in this scenario? **(10)**

You only need to consider those obligations placed upon employers under Recommendation 10 of International Labour Organisation R164 - Occupational Safety and Health Recommendation,1981 (No. 164).

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

Task 3: Determining root causes of the accident

3 You try to inform the supervisor that the root causes of unsafe behaviour are usually management failures.

Based on the scenario only, what management failures are likely to have contributed to this accident? **(10)**

Task 4: Assessing the permit-to-work system arrangements

4 Based on the scenario only, comment on the food manufacturing site's application of the permit-to-work *system*. **(10)**

Task 5: Effectively managing contractors during work

5 The site supervisor gave the contractor induction training when they arrived on site. What information should be included in this training? **(10)**

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

Task 6: Influencing health and safety culture

6 Based on the scenario only

(a) what are the positive indicators of health and safety culture at the food manufacturing site? **(15)**

(b) what are the negative indicators of health and safety culture at the food manufacturing site? **(5)**

Task 7: Understanding arrangements in ISO 45001: 2018 (Plan, Do, Check, Act)

7 ISO 45001: 2018 incorporates the Plan, Do, Check, Act stages.

Indicate which one of these stages the following arrangements (extracted from the scenario) belong to. **(10)**

Note: *You only need to select 10 of the following arrangements.*

(a) Active monitoring (BSAs).

(b) Occupational health and safety (OH&S) objectives (for the whole site).

(c) Management review (accidents with serious consequences).

(d) Re-visiting plans and documents (re-visiting the risk assessment).

(e) Competence (permit issued by a competent person).

(f) Hazard identification (hazards identified and understood by the permit issuer and contractor).

(g) Internal communication (weekly feedback meetings).

(h) Resources (providing resources for the OH&S management system).

(i) Control of documented information (careful version control).

(j) Managing incidents (incident investigation to identify root causes).

(k) Evaluation of compliance (thorough reporting, recording of accidents).

(l) Emergency response (rescued by the site's emergency response team).

Task 8: Assessing the application of risk assessment at the manufacturing site

8 (a) Based on the scenario only, what are the main types of workers you should take account of in your workplace risk assessment? **(5)**

Note: *You do* ***not*** *need to specify the worker's role (such as supervisor, etc), it is the type of worker (such as a migrant worker, etc) that would need to be considered.*

(b) One of the recommendations from your investigation was to review the risk assessment. You decide to analyse the existing control measures for the maintenance task where the contractor was injured.

Using the 'general hierarchy of control' as a framework, comment on the control measures used. **(15)**

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.