

International Diploma in Safety Engineering (IDSE)
Qualifi Endorsed Qualification

UNIT 1: Achieving Continual Improvement in OH&S Management system

Total Time: 24 Hours (+2 hours for submission)
Total Questions: 13

Total Marks: 150
Passing Marks: 75

Exam Instructions

- This is an Open Book Non-invigilated exam. Total Marks are 150 and maximum marks for the questions are given against each.
- Do not add any picture or sketch as part of your answer.
- Support your answers with **logical arguments** and **examples** relevant to the given scenario. Generic and Bookish answers will not be accepted by the examiners.
- All Questions are compulsory and must be answered to gain maximum marks
- **Do not directly copy/paste from any source. Write all answers in your own words.**
- Do not take help from any individual/ organization in any manner to complete your answers.
- Do not help other learner/s to complete their answers in any manner
- Your answers will be compared with other learners' work and any collusion found in terms of similar ideas, similar responses will form the basis for malpractice investigation and the results will be withheld.
- **You must only type your answer in the given answer sheet. Hand written responses will not be accepted.**

Note: This is a sample exam only for reference. Actual exam Questions may vary but total exam score will be 150 marks

Section A

Carefully analyze the following scenario and answer to the 5 questions in context with given scenario only. Any generic or irrelevant response will not be accepted by the examiner

Workplace Situation/ Scenario

“ABS Private Ltd” is a large chemical manufacturing company which produces sulphuric acid, hydrochloric acid, paints and a range of other chemicals. Its total annual production capacity is 50000 Tones for all chemicals it produces. The company operates in 3 shifts of 8 hours each (Mon-Fri) and 2 shifts 8 am to 12 pm on Saturday and Sunday and employs more than 3000 people including workers, supervisors, managers and directors. The company’s governance policy allows “Over Time” due to the shortage of skilled manpower and lucrative overtime per hour allowance is given to all workers who carry out the job beyond stipulated 40 hours weekly. The company has 8 large buildings/hangars on the same site and each building is 150 meters to 250 meters away from each other. The company has also subcontracted some of its processes to local vendors including purchase of raw materials & packaging products, Transportation and delivery of chemicals to its network of marketing partners’ warehouses, Annual maintenance of plant, hiring of manpower, legal consultants and advisors and Janitorial services. The company’s annual revenue is 900 Million Dollars while annual profit is around 250 Million dollars.

The company has established and implemented an OHS management system based on latest ISO management system standard for Occupational Safety and Health and claim a “self-compliance”. The company has no major safety accidents which may cause large scale disruption of business however there have been occurrences in which workers have been injured or suffered health issues over a period of last 3 years in various functions of the company. In a recent development, a retired worker who has been diagnosed with life threatening lungs disease has served a legal notice to the company for the compensation as the doctors believe the cause of the illness is long term exposure to the airborne chemicals at the workplace. The management has been alarmed and is really concerned about this particular issue as well as the health concerns of all the workers who are currently working with the company. This news has also circulated in the company and workers are showing concerns over the effectiveness of existing control measures.

The local regulatory body has called an audit of the company to ensure effective controls are in place to ensure the workers are not exposed to airborne chemicals beyond the limits specified. The audit is scheduled in next 30 days.

The management has called a meeting for legal consultant, all directors, managers, supervisors and workers’ representatives from all functions to discuss the effectiveness of existing controls in place and need for additional controls (if any). The significant outcome of the meetings are as follows;

- The management has shown satisfaction over the existing control measures against airborne chemicals based on the data provided by all functions. The existing control measures are as follows;
 - o Airborne chemical detection equipment have already been installed at all significant workplaces.
 - o Short term and long term exposure limits (as set by local regulatory body) against each airborne chemical is available with the company and these are being measured on monthly basis for every significant workplace.
 - o The absentee records of workers due to illness are documented and a 6 monthly review is carried out to ensure there is no significant increase in illness cases.
 - o The company provides a medical allowance to each worker as part of their salary package.
- The management has been advised by the legal consultant for “out of court settlement” of the case with the affected retired worker by paying him compensation. The management has agreed.
- The request from the workers’ representatives for additional control has been disregarded by the management due to the increased cost implications. The management believes that one odd ill health occurrence does not necessitate additional control measures.
- The management has also advised the safety department to prepare for the upcoming regulatory audit and make ready the evidences of the compliance.
- The management has also advised safety department to carry out an investigation to identify the root cause of the illness of the retired worker.

You work as safety manager in this company and there are almost 30 employees who directly report to you. You report directly to safety director who agrees with the outcome of the meeting. You however have shown concerns over the outcome of the meeting and discussed with safety director that existing control measures are insufficient. The Safety Director has advised you to comply with the decisions made by the management as offending the management with alternative options (that may also have cost implications) can have impact on your job and promotions.

All 5 questions carry 10 marks each (Total 50 Marks)

Keeping in view the above mentioned scenario, please answer to the following questions;

Question 1- Why do you think the existing control measures are insufficient and what additional control measures are needed? **10 Marks**

Question 2- What will you do to convince the top management for seeking support to deploy additional control measures? **10 Marks**

Question 3- How do you plan to use existing resources to make them more effective in case the top management does not provide additional resources? **10 Marks**

Question 4- What arrangements (Documents and records) you plan to make ready for upcoming regulatory audit in order to exhibit compliance? **10 Marks**

Question 5- You have been tasked by the Safety Director to carry out the investigation to identify the root cause of the illness of the worker on behalf of the management. You have to prepare a checklist of 5 potential significant causes (both direct and indirect) and establish the facts based on objective evidences. Use the following form to prepare your findings for the investigation. **10 Marks**

Sr #	Potential Cause of over exposure	What relevant evidence you wish to see to form your judgement

Section B

Carefully analyze the following scenarios and answer to the question/s in context with given scenarios only. Any generic or irrelevant response will not be accepted by the examiner.

Workplace Situation/ Scenario

You work in a construction company which has a workforce of 1200 skilled and semi-skilled workers. The company also employs workers on daily wages for short term projects along with its full time employees. The company has recently been fined by the regulatory body due to noncompliance with various workplace safety and health requirements at the workplace. The management has conducted a wide scale investigation to identify the root causes of the non-compliances. More than 85% non-compliances were attributed to lack of awareness and training. The management is concerned with the outcomes of the investigation as a huge budget was spent on training of workforce over a period of last 3 years. The situation however necessitate a procedural review of how the training process is being followed to identify the loopholes and establish a new procedure for training process which will be centrally administered for the whole organization.

Question 6 - Write down a comprehensive procedure to ensure the training process becomes more effective. You must also prepare related “Forms” as part of your procedure e.g. training requirement, training effectiveness forms or any other forms you may feel pertinent. **20 Marks**

Workplace Situation/ Scenario

You have recently joined “XYZ” courier company as safety manager. The company has more than 100 pickup locations (established offices) in various cities and 75% of them are operated through a network of subcontractors. The company head office is located on 3rd storey of 10 storey building. The company has 250 full time employees while 150 employees work with the subcontractors. The company owns a fleet of transport including 100 bikes and 25 pickup vans. The occurrence records show that there have been 3 transport accidents with the bike riders and resulted in 3-5 days hospitalization of the company riders. Another records show that 35 bikers were fined due to traffic rules violation during the last one year.

The company has established an OHS management system as per the requirements of ISO 45001:2018. The company's OHS policy is as follows;

" We at XYZ company are committed to provide a safe and healthy work environment to our workforce at all levels. We shall take timely corrective and preventive measures to safeguard the health and safety of our workforce. We shall utilize every possible resources to improve our health and safety management system"

Question 7 - Critically review the OHS policy "Statement of Intent" of the company against ISO 45001:2018 requirements? **10 Marks**

Question 8 - Write down an effective OHS Policy "Statement of Intent" for the company in lines with Company's business strategy and ISO 45001 requirements which should serve as a guidance for the OHS Management system requirements and intended outcomes. **10 Marks**

Workplace Situation/ Scenario

A large automotive manufacturing plant "Infinity Motors" has hired you as safety manager to improve the effectiveness of OHS Inspections and audits. The company has spent huge budget in its OHS Management system but latest 3rd party certification audit revealed certain non-conformities and observations related to the ineffectiveness of Inspections and audit process being followed within the company. The company has a total workforce of 3500 employees including 300 daily wagers. 35% of the work in terms of required man hours is outsourced to local subcontractors. The company has 8 separate buildings at the same location as follows;

- Machining and forging facility
- Casting facility
- Assembly line
- Heat treatment workshops
- Surface Treatment Facility
- Painting facility
- Warehouse
- Head Office (HR, Admin, Procurement, QHSE Departments)

There are 25 inspection staff related to OHS who directly report to you and you will report to QHSE Director. The inspections and audit data for the last 1 year has been provided to you in the following format

- | | |
|--|------------------|
| - Total number of inspections carried out= | 3500 inspections |
| - Total number of non-conformities identified= | 240 |
| - Number of OHS Observations= | 95 |

Question 9 - What additional significant data would you like to see in order to establish the root cause/s for the ineffectiveness of Inspection and Audit process? You must provide the reasons for each additional data you wish to see as per the following format; **20 Marks**

Sr#	Look into (The Data type)	Look For (The detailed reason you wish to see this data to identify the root cause of ineffectiveness)

Workplace Situation/ Scenario

You are working with “City Transport service company” for the last one year which provides transport services to various companies as 3rd party contractors. The company has a fleet as follows;

- 150 flatbed trailers
- 250 trucks
- 200 buses (72 seater)
- 300 coasters and coaches (12-25 seaters)

The company has 750 full time drivers on its payroll while another 500 drivers on its list of temporary drivers whose services are hired on various short term projects. The drivers are mostly uneducated however they have valid driving licenses issued against specific vehicles they operate. The drivers visit the parent company site occasionally for vehicles inspections etc. and usually report directly to the client companies’ transport managers.

The client companies have sent a number of complaints and feedbacks regarding the OHS incidents at client premises which were mainly attributed to the lack of awareness of the drivers regarding occupational safety and health. The drivers have been given warnings on various occasions and some of them were fined as well by the parent company. The drivers are however not comfortable with these requirements and some of them have already left the job while others also plan to leave. The management is very unhappy as this will cause a wide scale business disruption. You have been specifically tasked by the management to come out with a win-win situation for the employees as well as the company.

Question 10 - What will be your long term action plan to address the issue in the given scenario? Your action plan must be practical and supported by the resources implications and intended outcomes of the action plan. **10 Marks**

Question 11 - What key performance indicators (KPIs) you wish to establish to evaluate the drivers performance in future as part of your long term action plan. You must also allocate marks for each KPI and also set minimum required marks against each. **10 Marks**

Workplace Situation/ Scenario

You work in “Black Gold Oil and Gas Subcontractors” company as a safety manager. The company has an upcoming 3rd party recertification audit due next month. The management has planned to conduct an OHS Management system Review meeting in order to ascertain the degree of conformance against the given criteria (a specific OHS management system criteria has been provided by the client company). You being the incharge of Occupational Safety and Health has to prepare the Management Review input based on following data of last 1 year.

Month	Number of inspections	NC's	Number of Accidents	Cause of accidents	Number of investigations	Corrective actions taken	Preventive Actions	Repeat NC's
Jan	700	45	3	Judgement error or procedure violation	1	45	0	15
Feb	650	49	1	Equipment failure	1	49	0	12
Mar	730	48	0	N/A	0	48	0	11
Apr	690	40	0	N/A	0	40	0	14
May	685	42	1	Unsafe acts	0	42	0	13
Jun	725	43	1	Procedure violation	0	43	0	10
Jul	710	40	2	Procedure violation	0	40	1	7
Aug	701	38	3	Unsafe acts	0	38	0	9
Sep	680	35	6	Procedure violation or judgement error	0	35	0	8
Oct	721	78	2	Procedure violation	0	78	0	18
Nov	726	83	1	Unsafe act	0	83	1	17
Dec	680	80	0	N/A	0	80	0	15

Question 12 - What significant trends and patterns you observe in the above inspection data? Write down those trends and patterns for the perusal of the Managing Director to assist for effective Management Review output decisions. **10 Marks**

Question 13 - What additional data (Additional data or data in a specific format) would you like to add in order for an effective analysis and evaluation of the performance of OHS management system? **10 Marks**

End of Question Paper