

**EXTERNAL INTERGRATED SUMMATIVE ASSESSMENT**

**Quality Controller, NQF4**

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| **STUDENT NAME & SURNAME** |  |
| **IDENTITY NUMB ER** |  |
| **ASSESSMENT CENTRE** |  |
| **ACCREDITATION NUMBER** |  |
| **QUALIFICATION** | **QUALITY CONTROLLER** |
| **QAQA ID** | **117309** |
| **NQF LEVEL** | **4** |
| **CREDITS** | **173** |
| **PAPER NUMBER** | **2A** |
| **DATE OF EISA DD/MM/YYYY** |  |
| **DURATION** | **2 HOURS** |
| **TOTAL MARKS** | **100** |

**EXTERNAL INTEGRATED SUMMATIVE ASSESSMENT**

**QUALITY CONTROLLER**

**MEMORANDUM 2A**

**GENERAL EISA RULES**

**1. Students are only allowed to use the supplied EISA booklets.**

**2. Students are only allowed to use a black pen for their answers.**

**3. Students to ensure that their name, surname and EISA registration number appears on the front of your EISA booklet.**

**4. This is a closed book examination; therefore, no other material or belongings are to be brought into the assessment centre. Should you bring any other material or belongings into the assessment centre, you will be required to leave such at the front of the assessment centre examination room. The assessment centre will not be held liable for any loss or damage to property brought into the assessment centre examination room.**

**5. All EISA booklets must be handed back to the invigilator intact. No pages may be torn off from the EISA booklet. The removal of EISA booklets from the examination room is prohibited.**

**6. Students may make use of a calculator in this EISA.**

**7. Unless this is an online examination where access to a computer will be made available to you; the use of any communication devices, including smart watches, cell phones, tablets, iPads, headphones and laptops are prohibited.**

**8. All cell phones are to be switched off for the duration of the EISA.**

**9. The invigilator will not assist you with the explanation of questions related to the EISA.**

**10. Students are prohibited from conversing in any manner with other students.**

**11. Students may not leave the examination venue within one hour of the start of the examination and in the last 10 minutes of the allotted examination period.**

**12. Students who are found to be disruptive and unruly in the assessment centre will be requested to leave the assessment centre by the invigilator.**

**I HEREBY CONFIRM THAT I HAVE READ THE ABOVE EISA RULES AND DECLARE THAT I**

**UNDERSTAND AND ACCEPT THE RULES.**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SIGNATURE OF STUDENT**

**CANDIDATE INSTRUCTIONS**

* **Candidate must complete all question s in the EISA**
* **Candidates must ensure that they use only a black pen when completing this EISA.**
* **Should you require additional space to complete your answer, please request additional paper from your invigilator.**
* **Ensure that you indicate your name, surname and EISA registration number at the top of the additional paper.**
* **Also ensure that the question number is clearly marked on your additional paper.**

**-----------------------------------------------------------------------------------------------------------------**

ur Sayzwani Abd Suki;Elmi Abu Bakar ,Shahrul Kamaruddin/ A Case Study on Improvement of Outgoing Quality Control Works for Manufacturing

Products 4(1), pp. 12-21, 2015

**Question 1.1**

* + 1. Identify deviations, non-conformance (internal) and risks (internal and external stakeholders)

**(15 Marks)**

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| 1.1.1 Case Study  Allocate three marks for number 1 and twelve marks for number 2  Use discretion to allocate marks for any other relevant point that may be given by the student. |

Case Study:

Company ‘A’ strives to be very competitive company, however continuous customer complaints due to poor service and product failure are the **main** challenges. An analysis must be conducted to determine if the product/service meet the desired specifications and also to determine if the product parameters are still within specifications.

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| **Number** | **Question and Answer** | **Marks** |
| 1 | Define Deviation and give an industry example  **Answer:**  Deviation are measured differences between observed value and expected or normal value for a process or product condition, as well as a departure from a documented standard or procedures. ✓✓  An example is that deviation occurring during sampling and testing of incoming raw material/data and finished product/service. ✓ | 3 |
| 2 | A deviation is an unplanned event and can be caused by many factors, List and discuss the 6 factors which may cause deviation to occur.  **Answer:**   1. Contamination – is one of the common cause of process deviation in it may occur during a previous step or input material impurity. ✓✓ 2. Extra-ordinary environmental events – environmental events such as scarcity of input material or increase in material prices may cause deviations in the process as inferior material might be used instead of tested and approved materials. ✓✓ 3. Lack of training - people who are not aware of what the process entails due to lack of training may cause the process to deviate, it is important to ensure that people involved with process are adequately trained. ✓✓ 4. Undue care and attention – not paying attention to a process (monitoring temperature and pressure at the correct intervals) might cause process deviation. ✓✓ 5. Insufficient resources – lack of resources such as people, capital, materials and equipment may cause a process to deviate. ✓✓ 6. Equipment failure – if a piece of equipment come loose or broken or even malfunction that can cause problems in the process. ✓✓ | 12 |
| **Total** | | **15** |

* + 1. **Investigate the root cause of the deviation, non-conformance (internal) and risks (internal and external stakeholders) using a relevant technique e.g. fishbone diagram, 5 why’s root cause analysis**

**(15 Marks)**

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| 1.1.2 Case Study  Allocate ten marks for number 1 and five marks for number 2  Use discretion to allocate marks for any other relevant point that may be given by the student. |

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| **Number** | **Question and Answer** | **Marks** |
| 1 | Explain how will go about finding a root cause for problems experienced by company ‘A’ in the case study above and list the 6 symptoms to look out for when conducting a root cause analysis  **Answer:**  Root cause analysis is one of the important tools used to find the root cause of the problem. There will always be a problem encountered during quality control and bottom line is that it is not good enough to deal with symptoms but rather to deal with the root cause. A survey will have to be conducted in order to understand why there is product failure/ quality deviation. The root cause must be found through the analysis and techniques such as the 5 whys and the fishbone must be implemented. ✓✓✓✓  The six symptoms to look out for when analysing the root cause:   1. Poor quality product/service✓ 2. Lack of good customer service✓ 3. Demotivated sales staff✓ 4. High prices✓ 5. Competitors✓ 6. High unemployment✓ | 10 |
| 2 | Draw and label the fish bone technique    ✓✓✓✓✓ | 5 |
| **Total** | | **15** |

**1.1.3 Develop alternative solutions (recommendations) for identified deviations and non-conformances**

**(10 Marks)**

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| 1.1.3 Constructive Response  Allocate ten marks each for number 1  Use discretion to allocate marks for any other relevant point that may be given by the student. |

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| **Number** | **Question and Answer** | **Marks** |
| 1 | Once a problem has been found, a solution needs to be found. The best way will be to develop best alternative solutions for identified deviations and non-conformances.  Discuss in details either 1 of the 2 brainstorming techniques used to find alternatives solutions.  **Answer:**  Technique #1: brainstorming by yourself  Brainstorming on your own can be an extremely effective path to coming up with great solutions.  It is recommended that each member of a team does their own mind mapping exercise before entering a group brainstorming session, the group brainstorm is a lot more productive that way. ✓✓  The Mind Mapping Technique:   1. Write down your question or problem in the centre of a blank piece of paper. *Example: why is our department receiving so many customer complaints.* *✓✓* 2. Write down your ideas as branches from the centre.   *Example: interview customers and find out what are they unhappy about.* *✓✓*   1. Do some word association with the ideas in the main branches, and write these related thoughts as sub-branches created out from the main branches.   *Example: how can you restore the customer trust and how to can ensure that service rendered and product offered will customer expectations.  ✓✓*   1. Write down more ideas as branches from the centre, this time keeping in mind the word associations you just had.   *Example: customer satisfaction – think of more ways to keep the customer happy.*  Repeat word association and jotting down new ideas as needed until you are satisfied. ✓✓  **OR**  Technique #2: brainstorming with a group  Is applicable when you want to harness the power of several minds to generate amazing ideas and solutions. As an organiser and facilitator, your role may prevent you from fully participating in idea creation. ✓✓✓  **7 Steps to follow when setting up a brainstorming session with a group:**  1. Set a time, place, and invite list of people you want to be part of the group as that is very important. ✓  2. Give participants homework to do before the brainstorming session begins to avoid meeting unprepared. ✓  3. Hold the session in a fun, relaxing environment to help them think out of the box. ✓  4. Start the session by grounding people in the facts and by spending a little time at the beginning getting people on the same page is really helpful. ✓  5. Set the rules for the brainstorming session by making sure people understand that criticizing is not allowed. ✓  6. Facilitate the brainstorming session by Writing ideas out on a whiteboard or flipchart as they come. ✓  7. After the brainstorming session, the evaluation process can begin and this can help understand the possible strategies to solve your problem. ✓ | 10 |
| **Total** | | **10** |

**1.1.4 Implement corrective actions to address deviations and non-conformances**

**(10 Marks)**

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| 1.1.4 Constructive Response  Allocate ten marks for number 1  Use discretion to allocate marks for any other relevant point that may be given by the student. |

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| **Number** | **Question and Answer** | **Marks** |
| 1 | Corrective action is usually taken when there are deviations of processes and or product /services from specifications.  Discuss the implications of recommending an inappropriate recommendation for both production and service industry  **Answer:**  The implication of recommending an inappropriate recommendation in a production environment is that it can happen that the pressure in a vessel is higher than what it is supposed to be and the corrective measure need to be taken to normalize the pressure. However, the controller may recommend that a temperature be increased to remedy the situation. This means that if the temperature increases, the pressure also increases. This will result in a wrong recommendation. Instead of adjusting the pressure to be within the tolerance limits, it will go completely out of control. The implication could be that the vessel might explode under a severe pressure thus damaging the vessel incurring huge costs for repair. ✓✓✓✓✓  The implication of recommending an inappropriate recommendation in a service environment is that a supplier may deliver a defective product to a client. The corrective measure to be taken is to replace the product with the correct one. It may happen that the supplier has run out of stock. The supplier may recommend that the good be replaced with a substitute good. This good or product may not meet customer requirements. The customer may incur severe costs and reputational damage especially if he has to sell it to other customers as well. The supplier in this case will lose a business as well as this customer will not order from these suppliers again. ✓✓✓✓✓ | 10 |
| **Total** | | **10** |

**Question 1.2**

* + 1. Identify the components of the quality policy with regards to the safety, environment and legal compliance of product/service

**(10 Marks)**

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| 1.2.1 True or False  Allocate one mark each for number 1 to 10  Use discretion to allocate marks for any other relevant point that may be given by the student. |

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| **Number** | **Statement** | **True/False** | **Marks** |
| 1 | Different industries and professions have compliance regulatory organisations supported by legislation. | True | ✓ |
| 2 | It is not always important to ensure that correct processes are followed to keep business compliant. | False | ✓ |
| 3 | Compliance to the Occupational Health and Safety Act measures may result in the loss of production. | False | ✓ |
| 4 | It is important to note that the implementation of a quality management system is not a legal requirement. | True | ✓ |
| 5 | Personal protective equipment (PPE) is not the main source of protection for emergency and recovery workers. | False | ✓ |
| 6 | Depending on the hazard, the recommendations on the use of PPE change. | True | ✓ |
| 7 | Effective [housekeeping](https://www.sfceurope.com/uk/job-roles/cleaner-housekeeping-staff) can help control and even eliminate potential workplace hazards to ensure safety throughout the working day. | True | ✓ |
| 8 | The Occupational Health and Safety Act requires employers to have a Health and Safety Policy in place. | True | ✓ |
| 9 | In the workplace an employees can work under the influence of liquor as that may not affect the quality of work. | False | ✓ |
| 10 | Firms can use green approaches to address concerns about the natural environment. | True | ✓ |
| **Total** | | | **10** |

* + 1. Apply procedures to maintain safety environment, legal compliance and quality of service or products.

**(20 Marks)**

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| 1.2.2 Constructive Response  Allocate ten marks for number 1, six marks for number 2 and four marks for number 3  Use discretion to allocate marks for any other relevant point that may be given by the student. |

Having Health and Safety Policies & Procedures shows that employers, management and employees prioritize health and safety. It also displays the commitment to reduce or remove risks, safe guard the safety and welfare of premises users. This includes contractors, visitors and anyone else who could be associated with the business. answer the following questions below:

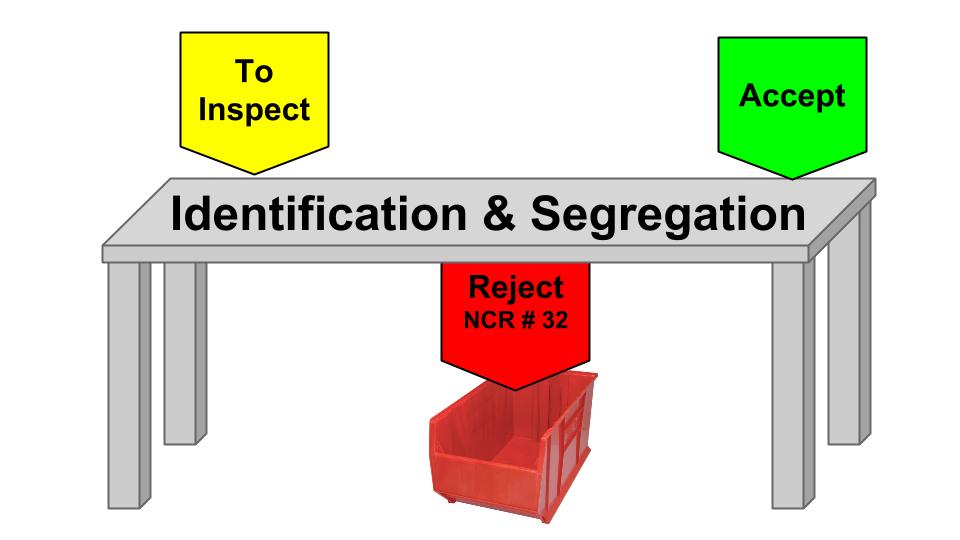
|  |  |  |
| --- | --- | --- |
| **Number** | **Questions and Answers** | **Marks** |
| 1 | Discuss the 5 responsibilities a manager has with regard to the health and safety procedure.  **Answer: Any 5**  Safe products and well-maintained plants, machinery and equipment.   1. Safe and healthy facilities for employees e.g. Changing rooms, showers, dining room. ✓✓ 2. Provide information & instructions to employees, e.g. safe working procedures, data sheets for products and machinery manufacturers' information. ✓✓ 3. Provide training and supervision to ensure that employees are safe from injuries. ✓✓ 4. Employees should be trained in aspects such as fire drills, evacuation plans, First Aid etc. ✓✓ 5. Show a commitment to consult and co-operate with workers in all matters relating to health and safety in the workplace. ✓✓ 6. Display the Health and Safety Policies & Procedures in the workplace where employees normally report for duty. ✓✓ | 10 |
| 2 | Discuss the 3 major types of a standard operating procedures and how they are used in an industry  **Answer:**   1. Step-by-Step SOP - as the name suggests, outline the process one step at a time in a linear way. They are most useful when the task or process is also linear and fairly straightforward. ✓✓ 2. [Hierarchical SOP - fill the gap](https://www.infotech.com/research/hierarchical-sop-template#:~:text=Browse%20Member%20Site-,Hierarchical%20SOP%20Template,larger%20outline%20of%20the%20process.) that linear standard operating procedures leave. In a hierarchical SOP, the process is a combination of larger processes and step-by-step pieces. ✓✓ 3. Hybrid SOP - are typically a collection of SOPs under one main process that have to be accomplished in a series of events. Unlike a hierarchical SOP, hybrid combines linear methods with a variety of media, checklists, and other, smaller SOPs. ✓✓ | 6 |
| 3. | Discuss what is meant by an organisation to be being socially responsible with regard to maintaining safety environment.  **Answer:**  An organization can be socially responsible by ensuring that they are responsible for the impacts of their decisions and activities on society and the environment, through transparent and ethical behavior ensuring an approach that helps protect the long-term success of society and the environment. They can ensure that they contribute to sustainable development, including health and the welfare of society. Considers the expectations of [stakeholders](https://asq.org/quality-resources/stakeholders), follows applicable laws and consistent with international norms of behavior as well as integrated throughout the organization and practiced in its relationships. ✓✓✓✓ | 4 |
| **Total** | | **20** |

* + 1. Identify and report non-conformance, risks and ensuring effective segregation.

**(20 Marks)**

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| 1.2.3 Case study  Allocate nine marks for number 1, eight marks for number 2 and three marks for number 3  se discretion to allocate marks for any other relevant point that may be given by the student. |

Conformance to quality is the degree to which a good or service meets certain design standards determined by the producer. In other words, it is a measure of how close products and services come to meeting planned criteria once they are produced or delivered. On the other hand, non-conformance is when something (a product, service, process or system) fails to conform to your agreed standard. Effective segregation and proper labelling of non-conforming products is required in order to ensure that there is no cross contamination as well the use of nonconforming products. The picture below is a typical illustration of segregation in the workplace.



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| **Number** | **Questions and Answers** | **Marks** |
| 1 | Discuss the main types of audit and give one industry example  **Answer:**   1. Process audit - verifies that processes are working within established limits. It evaluates an operation or method against predetermined instructions or standards to measure conformance to these standards and the effectiveness of the instructions. ✓✓✓ 2. Product audit - is an examination of a particular product or service, such as hardware, processed material, or software, to evaluate whether it conforms to requirements (i.e., specifications, performance standards, and customer requirements). ✓✓✓ 3. System audit - is a documented activity performed to verify, by examination and evaluation of objective evidence, that applicable elements of the system are appropriate and effective and have been developed, documented, and implemented in accordance and in conjunction with specified requirements. ✓✓✓ | 9 |
| 2 | Discuss the 4 types of non- conformances and give one industry example  **Answer: Leaner to include 1 industry example, allocate 1 mark for each non-conformance type and 1 mark each for industry example**   1. Labelling an item with a false claim. ✓✓ 2. Failure to take preventive or corrective action. ✓✓ 3. Employees not following the correct procedure. ✓✓ 4. Not implementing aspects of a standard. ✓✓ | 8 |
| 3. | Discuss what is meant by effective segregation.  **Answer:**  Segregation means separating material items which were found to have defects during inspecting / testing into distinct categories and quarantine them. Segregated material must be done based on material propertyto avoid cross contamination and wrong material being picked and used. ✓✓✓ | ✓✓✓ |
| **Total** | | **20** |

**Marks Allocation Grid (For use by Assessor Only)**

|  |  |  |
| --- | --- | --- |
| **Question** | **Marks** | **Allocated Marks** |
| 1.1.1 | 15 |  |
| 1.1.2 | 15 |  |
| 1.1.3 | 10 |  |
| 1.1.4 | 10 |  |
| **Total Question 1.1** | **50** |  |
| 2.1.1 | 10 |  |
| 2.1.2 | 20 |  |
| 2.1.3 | 20 |  |
| **Total Question 2.1** | **50** |  |

**Assessor Details**

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| --- | --- |
| **Assessor Name and Surname** |  |
| **Registration Number** |  |
| **Signature** |  |
| **Date** |  |

**Moderator Details**

|  |  |
| --- | --- |
| **Moderator Name and Surname** |  |
| **Registration Number** |  |
| **Signature** |  |
| **Date** |  |