# Knowledge Assessment

**Event 1 of 2**

## Criteria

### Unit code, name and release number

MEM15002A - Apply quality systems (1)

\*\*\*This unit sits in the qualifications below – This assessment is not to be amended\*\*

### Qualification/Course code, name and release number

MEM30205 – Certificate III in Engineering – Mechanical Trade (3)

MEM30305 – Certificate III in Engineering – Fabrication trade (4)

\*\*\* Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in\*\*

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: *1.0*

Date created: *6 July 2018*

Date modified: *16/10/2019*

For queries, please contact:

*IMRS SkillsPoint*

*Block B Level 1*

*Hamilton Campus Newcastle*

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your knowledge as required to be deemed satisfactory in meeting the necessary requirements as stated in the Unit Assessment Guide for MEM15002A Apply quality systems and covers the elements   1. Work within a quality system 2. Engage in quality improvement |
| **Assessment Event number** | 1 of 2 |
| **Instructions for this assessment** | This is a written assessment and it will be assessing you on your knowledge of the unit.  This assessment is in 4 parts:   1. Multiple choice questions 2. True or False questions 3. Short answer questions 4. Assessment feedback |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your trainer for marking.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment all questions must be answered correctly. |
| **What do I need to provide?** | Pens, pencils, eraser, 150mm rule |
| **Due date/time allowed** | *Enter due date*  Time allowed 1hour |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with [Assessment Guidelines for TAFE NSW](https://staff.tafensw.edu.au/documents/2017/11/assessment-guidelines-v02.pdf/). |

## Part 1: Multiple choice

Read the question and each answer carefully. Put an X in the table next to your chosen answer.

1. Before commencing work on a piece of equipment, all relevant safety and technical information could be accessed in:

Table 1: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Technical manuals/specifications |  |
| 1. Service logbooks and maintenance manuals |  |
| 1. Safe operating procedures |  |
| 1. Drawings and exploded views |  |
| 1. All of the above |  |

1. Where would you find the Standard Operating Procedure for a machine?

Table 2: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. On or next to a machine |  |
| 1. Manufactures handbook |  |
| 1. Supervisor/managers office |  |
| 1. All of the above |  |

1. Why do we use SOPs’?

Table 2: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. To show you how well a machine runs |  |
| 1. To follow a set of instructions to complete a task |  |
| 1. Show emergency evacuation routes |  |
| 1. To avoid producing products of minimal quality |  |

1. If you are going onto a new worksite, whom should you talk to first about site WHS procedures?

Table 4: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Your manager |  |
| 1. Site manager |  |
| 1. Safe Work NSW |  |
| 1. Store person |  |

1. In the manufacturing environment, what is the term for continuous improvement that ensures quality is maintained throughout all stages of the process?

Table 5: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Quality link |  |
| 1. Quality chain |  |
| 1. Quality series |  |
| 1. Quality value |  |

1. Which of the following people are the most important in the successful function of a quality control system?

Table 6: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. The Manager |  |
| 1. The Supervisor |  |
| 1. The Tradesmen |  |
| 1. All of the above |  |

1. Who is responsible for the quality of products being produced by a machine?

Table 7: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. The leading hand |  |
| 1. The customer |  |
| 1. Quality control inspector |  |
| 1. The machine operator |  |

1. Who is affected the most by a poor quality product?

Table 8: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. The Company |  |
| 1. The customer |  |
| 1. The machine operator |  |
| 1. The production supervisor |  |

1. Who should be responsible for ensuring a shaft’s diameter meets drawing specifications?

Table 9: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Supervisor |  |
| 1. Customer |  |
| 1. Quality control inspector |  |
| 1. Machinist |  |

1. When should a product be inspected?

Table 10: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Just before shipping to the customer |  |
| 1. At each stage of the production stage |  |
| 1. In the quality control department |  |
| 1. In the warehouse |  |

1. What are the benefits of good quality system in an engineering workshop?

Table 11: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Quality products |  |
| 1. Reduced costs |  |
| 1. Customer confidence, satisfaction and loyalty |  |
| 1. Time spent on quality control can be reduced |  |

1. Quality improvement procedures address which two key areas:

Table 12: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. The short cuts |  |
| 1. The product |  |
| 1. The sales record |  |
| 1. The process |  |

1. What are the benefits of good quality? (please select All the correct responses)

Table 12: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Good reputation |  |
| 1. Having a process to follow to solve problems |  |
| 1. Increased competiveness |  |
| 1. Less accidents |  |

1. What are the costs or consequences of poor quality production within a company? (please select All the correct responses)

Table 12: Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Lost customers |  |
| 1. Accidents |  |
| 1. Increased competiveness |  |
| 1. Reduced costs |  |

## Part 2: True or false

Read the question and then write **True** or **False** in the space provided.

Table 1: True or false

| Question | Write *True* or *False* |
| --- | --- |
| 1. Improvement and maintenance of a quality system has a cost. |  |
| 2. Inspecting the finished product is the only way to eliminate the cause of the defects. |  |
| 3. Plan, do, check and act is a quality cycle for the continuous improvement of people and processes. |  |
| 4. ISO 9001 is the recognised standard for the requirements of a quality management system. |  |
| 5. Good communication involving customers and suppliers can eliminate potential problems before they escalate. |  |
| 6. Dissatisfied customers can damage a company’s reputation. |  |
| 7. Defective design is a common cause of faulty products. |  |
| 8. Quality circles are a common method of including production workers in the quality improvement process. |  |
| 9. A quality system is a collection of business processes focused on consistently meeting customer requirements and enhancing their satisfaction |  |

## Part 3: Short answer

Read the question carefully. Your answer should be a minimum of 1 word but no longer than 50 words.

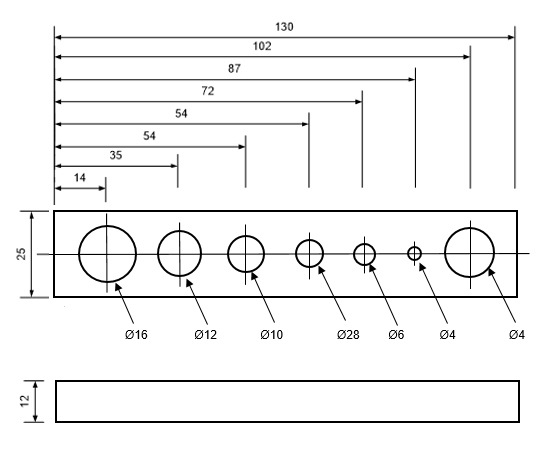
1. What does the term quality mean?
2. Who is an internal customer?
3. Who is an external customer?
4. Give four (4) reasons why quality procedures and systems are important?
5. Job satisfaction is a key benefit of good quality production. List three personal consequences of **low** job satisfaction and poor quality systems?
6. State two (2) reasons why a job must conform to specification.
7. In applying the principles of good quality, why is it important for an Organisation to keep up-to-date with technology?
8. List two (2) methods where a process can be improved?
9. Give **an** example of the steps you would perform to check a part for conformance to specifications.
10. The following is a list of quality system terminology. Complete the table provided below by matching the correct System Terminology with its Concept. **Example supplied.**
11. **Quality Assurance**
12. **Quality Control**
13. **Quality Inspection**
14. **Total Quality Control (TQC)**

|  |  |
| --- | --- |
| Concept | System Terminology |
| Checking, measuring, or testing of one or more product characteristics and relate the results to confirm compliance |  |
| Maintaining a desired level of quality of a product at every stage of the manufacturing process to meet customers’ requirements | **a) Quality Assurance** |
| Procedure to ensure that a manufactured product or service meets the requirements of the client or customer |  |
| Application of quality management principles to all areas of manufacturing from design to delivery combining both quality control and quality assurance to meet customers’ requirements |  |

1. **Scenario:** You are to produce the following item from the drawing in Figure 1. Drill plate

Review this drawing for errors and record the errors you have identified and the proposed modifications/corrections in the table provided below.

**Figure 1 – Drill Plate (all dimensions in mm)**

****

|  |  |
| --- | --- |
| **Error** | **Modification/Correction** |
|  |  |
|  |  |
|  |  |

12. The following is a procedure for reporting defects in a quality improvement system. Using the steps listed below indicate in the correct order the sequence of the procedure. Follow the Plan Do Check and Act Cycle. **Step 1 answer supplied.**

|  |  |
| --- | --- |
| Procedure cycle (Plan Do Check and Act) | Step # |
| What is the problem we need to solve | **1** |
| What resources do we need and have |  |
| Clarify the plan |  |
| Apply the action you have in the plan |  |
| What is the best solution to fix the problem |  |
| If all specifications of the job conform then apply the initial plan. |  |
| Have the problems from the plan been addressed. Make sure there are no reoccurring mistakes |  |

13. Accidents are a consequence of of poor quality systems. Give two (2) examples of the cause of accidents in the workplace.

## Part 4: Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome- Knowledge Assessment: Theory

### Event 1 of 2

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***