

## Qualification Pack



# Manager /Supervisor Manufacturing and R&D Quality Level 7

QP Code: ASC/Q6306

Version: 1.0

NSQF Level: 7

Automotive Skills Development Council || 153, Gr Floor, Okhla Industrial Area, Phase - III, Leela  
Building  
New Delhi - 110020

## Qualification Pack

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## Qualification Pack

# ASC/Q6306: Manager /Supervisor Manufacturing and R&D Quality Level 7

## Brief Job Description

Individuals at this job need to be responsible for the quality inspection, performance and improvement of in process products and their Manufacturing and R&D processes in order to deliver high quality to customers

## Personal Attributes

This job requires the individual to be able to coordinate internally and externally within the organization. The individual should be result oriented and possess strong quality management skills. The individual should also be able to demonstrate skills for mathematical reasoning, problem solving, relationship building and leadership

## Applicable National Occupational Standards (NOS)

### Compulsory NOS:

1. [ASC/N0002: Work effectively in a team](#)
2. [ASC/N0006: Maintain a safe and healthy working environment](#)
3. [ASC/N0022: Ensure implementation of 5S activities at the shop floor & the office area](#)
4. [ASC/N6311: Monitor the process and product quality](#)
5. [ASC/N6312: Coordinate with various departments for improving the quality standards](#)

## Qualification Pack (QP) Parameters

<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing Support
<b>Occupation</b>	Quality Assurance
<b>Country</b>	India
<b>NSQF Level</b>	7
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/3122.9900

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<b>Minimum Educational Qualification &amp; Experience</b>	B.Tech (Mechanical/Electrical/Electronics Engineering) with 5-10 Years of experience Quality/Manufacturing department OR Diploma (Mechanical/Electrical/Electronics Engineering) with 5-10 Years of experience Quality/ Manufacturing department
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	Compulsory: Quality Management Systems like TS16949, Lean Six Sigma; 7 QC tools, materials classification techniques, APQP procedures, process capability measurement, layout inspection techniques , special characteristics, GD&T, Gauge designing methodologies, testing standards like ISO/IEC17025, Voluntary: Information flow systems/ ERP like SAP , depending on applicability in organization
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	27/08/2013
<b>Next Review Date</b>	31/03/2021
<b>Deactivation Date</b>	31/03/2021
<b>NSQC Approval Date</b>	05/08/2015
<b>Version</b>	1.0

## Qualification Pack

### ASC/N0002: Work effectively in a team

#### Description

This NOS unit is about working effectively with colleagues, either in individuals own work group or in other work groups within organisation

#### Scope

This unit/task covers the following: Colleagues:

- Superiors
- Members of own work group
- People in other work groups within or outside the organisation Communicate:
- Face-to-face
- By telephone
- In writing

#### Elements and Performance Criteria

##### *Effective communication*

To be competent, the user/individual on the job must be able to:

- PC1.** maintain clear communication with colleagues
- PC2.** work with colleagues
- PC3.** pass on information to colleagues in line with organisational requirements
- PC4..** work in ways that show respect for colleagues
- PC5.** carry out commitments made to colleagues
- PC6.** let colleagues know in good time if cannot carry out commitments, explaining the reasons
- PC7.** identify problems in working with colleagues and take the initiative to solve these problems
- PC8.** follow the organisations policies and procedures for working with colleagues
- PC9.** ability to share resources with other members as per priority of tasks

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organisations policies and procedures for working with colleagues, role and responsibilities in relation to this
- KU2.** the importance of effective communication and establishing good working relationships with colleagues
- KU3.** different methods of communication and the circumstances in which it is appropriate to use these
- KU4.** benefits of developing productive working relationships with colleagues
- KU5.** the importance of creating an environment of trust and mutual respect
- KU6.** whether not meeting commitments, will have implications on individuals and the organisation

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- KU7.** different types of information that colleagues might need and the importance of providing this information when it is required
- KU8.** the importance of problems, from colleagues perspective and how to provide support, where necessary, to resolve these

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** complete well written work with attention to detail
- GS2.** read instructions, guidelines/procedures
- GS3.** listen effectively and orally communicate information
- GS4.** make decisions on a suitable course of action or response
- GS5.** plan and organise work to achieve targets and deadlines
- GS6.** check that the work meets customer requirements
- GS7.** deliver consistent and reliable service to customers
- GS8.** apply problem solving approaches in different situations
- GS9.** apply balanced judgements to different situations
- GS10.** apply good attention to detail
- GS11.** check that the work is complete and free from errors
- GS12.** get work checked by peers
- GS13.** work effectively in a team environment

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Effective communication</i>	<b>25</b>	<b>75</b>	-	-
<b>PC1.</b> maintain clear communication with colleagues	4	10	-	-
<b>PC2.</b> work with colleagues	2	7	-	-
<b>PC3.</b> pass on information to colleagues in line with organisational requirements	3	8	-	-
<b>PC4..</b> work in ways that show respect for colleagues	3	8	-	-
<b>PC5.</b> carry out commitments made to colleagues	2	8	-	-
<b>PC6.</b> let colleagues know in good time if cannot carry out commitments, explaining the reasons	2	8	-	-
<b>PC7.</b> identify problems in working with colleagues and take the initiative to solve these problems	4	9	-	-
<b>PC8.</b> follow the organisations policies and procedures for working with colleagues	3	9	-	-
<b>PC9.</b> ability to share resources with other members as per priority of tasks	2	8	-	-
<b>NOS Total</b>	<b>25</b>	<b>75</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N0002
<b>NOS Name</b>	Work effectively in a team
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing and R&D, Sales and Service, Road Transportation
<b>Occupation</b>	Maintenance
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	23/09/2013
<b>Next Review Date</b>	30/09/2015
<b>NSQC Clearance Date</b>	28/09/2015

## Qualification Pack

### ASC/N0006: Maintain a safe and healthy working environment

#### Description

This NOS is about creating a Safe and Healthy work place, adhering to the safety guidelines in the working area, following practices which are not impacting the environment in a negative manner and training team members on health and safety related issues

#### Scope

The role holder will be responsible for

- identifying and reporting of risks
- creating and sustaining a safe, clean and environment friendly work place This NOS will be applicable to all Automotive sector manufacturing job roles

#### Elements and Performance Criteria

##### *Identify and report the risks identified*

To be competent, the user/individual on the job must be able to:

- PC1..** Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise
- PC2.** Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc
- PC3.** Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations
- PC4.** Create awareness amongst other by sharing information on the identified risks

##### *Create and sustain a Safe, clean and environment friendly work place*

To be competent, the user/individual on the job must be able to:

- PC5..** Follow the instructions given on the equipment manual describing the operating process of the equipments
- PC6..** Follow the Safety, Health and Environment related practices developed by the organization
- PC7.** Operate the machine using the recommended Personal Protective Equipments (PPE)
- PC8. .** Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc
- PC9.** Maintain high standards of personal hygiene at the work place
- PC10.** Ensure that the waste disposal is done in the designated area and manner as per organization SOP.
- PC11.** Inform appropriately the medical officer/ HR in case of self or an employees illness of contagious nature so that preventive actions can be planned for others

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** relevant standards, procedures and policies related to Health, Safety and Environment followed in the company
- KU2.** basic knowledge of Safety procedures( fire fighting, first aid) within the organization
- KU3.** knowledge of various types of PPEs and their usage
- KU4.** basic knowledge of risks/hazards associated with each occupation in the organization
- KU5.** how to safely operate various tools and machines and risks associated with the tools/ equipment
- KU6.** knowledge of personal hygiene and how an individual can contribute towards creating a highly safe and clean working environment

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write basic level notes and observations
- GS2.** read safety instructions put up across the plant premises
- GS3.** read safety precautions mentioned in equipment manuals and panels to understand the potential risks associated
- GS4.** effectively communicate information to team members
- GS5.** inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment.
- GS6.** question operator/ supervisor in order to understand the safety related issues
- GS7.** attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
- GS8.** use common sense and make judgments during day to day basis
- GS9.** use reasoning skills to identify and resolve basic problems
- GS10.** use common sense and make judgments during day to day basis
- GS11.** use reasoning skills to identify and resolve basic problems

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify and report the risks identified</i>	<b>8</b>	<b>23</b>	-	-
<b>PC1..</b> Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise	3	6	-	-
<b>PC2.</b> Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc	2	6	-	-
<b>PC3.</b> Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations	2	6	-	-
<b>PC4.</b> Create awareness amongst other by sharing information on the identified risks	1	5	-	-
<i>Create and sustain a Safe, clean and environment friendly work place</i>	<b>17</b>	<b>52</b>	-	-
<b>PC5..</b> Follow the instructions given on the equipment manual describing the operating process of the equipments	3	7	-	-
<b>PC6..</b> Follow the Safety, Health and Environment related practices developed by the organization	3	8	-	-
<b>PC7.</b> Operate the machine using the recommended Personal Protective Equipments (PPE)	3	8	-	-
<b>PC8. .</b> Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc	2	8	-	-
<b>PC9.</b> Maintain high standards of personal hygiene at the work place	2	7	-	-
<b>PC10.</b> Ensure that the waste disposal is done in the designated area and manner as per organization SOP.	3	8	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> Inform appropriately the medical officer/ HR in case of self or an employees illness of contagious nature so that preventive actions can be planned for others	1	6	-	-
<b>NOS Total</b>	<b>25</b>	<b>75</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N0006
<b>NOS Name</b>	Maintain a safe and healthy working environment
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing
<b>Occupation</b>	Maintenance
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	15/09/2013
<b>Next Review Date</b>	15/09/2015
<b>NSQC Clearance Date</b>	20/07/2015

## Qualification Pack

# ASC/N0022: Ensure implementation of 5S activities at the shop floor & the office area

## Description

This NOS is about overseeing the implementation of all 5 S activities both at the shop floor and the office area by the team members and training the team in implementation of the 5S principles

## Scope

The individual needs to

- Ensure sorting, streamlining/ organizing, storage and documentation, systematic cleaning, standardization and sustenance across the plant and office premises of the organization as given in the organization guidelines

## Elements and Performance Criteria

### *Ensure proper sorting of items at the work place*

To be competent, the user/individual on the job must be able to:

- PC1..** ensure all recyclable materials are put in designated containers
- PC2.** ensure no tools, fixtures & jigs are lying on workstations unless in use and no un-necessary items is lying on workbenches or work surfaces unless in use
- PC3.** ensure that the operators and other team members are segregating the waste in hazardous/ non hazardous waste as per the sorting work instructions
- PC4.** ensure that all the operators are following the technique of waste disposal and waste storage in the designated bins
- PC5..** segregate the items which are labelled at red tag items for the process area and keep them in the correct places
- PC6..** ensure that all the tools/ equipment/ fasteners/ spare parts are arranged as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions
- PC7.** check for return of any type of extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area
- PC8. .** oversee removal of unnecessary equipment, storage, furniture, unneeded inventory, supplies, parts and material
- PC9.** ensure that areas of material storage areas are not overflowing
- PC10.** ensure proper stacking and storage of the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required

### *Ensure proper documentation and storage - streamlining & organizing the workplace*

To be competent, the user/individual on the job must be able to:

- PC11.** ensure that the team follows the given instructions and checks for labelling of fluids, oils lubricants, solvents, chemicals etc and proper storage of the same to avoid spillage, leakage, fire etc

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- PC12.** make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions
- PC13.** ensure that organizing the workplace takes place with due considerations to the principles of wasted motions, ergonomics, work & method study .

### *Ensure cleaning of self and the work place*

To be competent, the user/individual on the job must be able to:

- PC14.** ensure that the area has floors swept, machinery clean and is generally neat and tidy in case of cleaning, ensure that correct displays are maintained on the floor which indicate potential safety hazards
- PC15..** ensure workbenches and work surfaces are clean and in good condition
- PC16..** ensure adherence to the cleaning schedule for the lighting system to ensure proper illumination
- PC17..** ensure all recyclable materials are put in designated containers

### *Ensure standardization*

To be competent, the user/individual on the job must be able to:

- PC18.** ensure that daily cleaning standards and schedules to create a clean working environment are followed across the plant
- PC19..** ensure all recyclable materials are put in designated containers
- PC20. .** ensure logical and user friendly documentation and file management for all activities across the plant and create guidelines around standardization of processes
- PC21.** ensure timely creation and sharing of the 5s checklists
- PC22.** ensure that the 5s manual are available as per the timelines

### *Ensure sustenance*

To be competent, the user/individual on the job must be able to:

- PC23.** ensure team cooperation during the audit of 5 s activities
- PC24.** ensure that workmen are periodically trained to address challenges related to 5s
- PC25..** participate actively in employee work groups on 5s and encourage team members for active participation
- PC26..** oversee that the staff/operators are trained and fully understand 5s procedures
- PC27. .** ensure that all the guidelines for what to do and what not to do to build sustainability in 5s are mentioned in the 5s check lists/ work instructions and are easily searchable
- PC28.** ensure continuous training of the team members on 5s in order to increase their awareness and support implementation
- PC29.** ensure that all visual controls, notice boards, symbols etc at the manufacturing place are created, working and are put up as per the requirement

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards, procedures and policies related to 5S followed in the company
- KU2.** have basic knowledge of 5S procedures
- KU3.** know various types 5s practices followed in various areas

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- KU4.** understand the 5S checklists provided in the department/ team
- KU5.** have skills to identify useful & non useful items
- KU6.** have knowledge of labels , signs & colours used as indicators
- KU7.** Have knowledge on how to sort and store various types of tools,equipment, material etc
- KU8.** know , how to identify various types of waste products
- KU9.** understand the impact of waste/ dirt/ dust/unwantedsubstances on the process/ environment/ machinery/ humanbody
- KU10.** have knowledge of best and environment protective ways ofcleaning & waste disposal
- KU11.** understand the importance of standardization in processes
- KU12.** understand the importance of sustainability in 5S
- KU13.** have knowledge of TQM process
- KU14.** have knowledge of various materials and storage norms
- KU15.** understand visual controls, symbols, graphs etc

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write basic level notes and observations
- GS2.** note down observations (if any) related to the process
- GS3.** write information documents to internal departments/ internal teams
- GS4.** read 5S instructions put up across the plant premises
- GS5.** effectively communicate information to team members inform employees in the plant and concerned functions about 5S
- GS6.** question the process head in order to understand the 5S related issues
- GS7.** attentively listen with full attention and comprehend the information given by the speaker during 5S training programs
- GS8.** use common sense and make judgments during day to day basis
- GS9.** use reasoning skills to identify and resolve basic problems using 5S
- GS10.** persuade team members to follow 5 S
- GS11.** ensure that the team members understand the importance of using 5 S tool
- GS12.** use innovative skills to perform and manage 5 S activities at the work desk and the shop floor
- GS13.** exhibit inquisitive behaviour to seek feedback and question on the existing set patterns of work emerge, techniques in CA/CI around 5 S work practices
- GS14.** do what is right, not what is a popular practice
- GS15.** follow shop floor rules& regulations and avoid deviations
- GS16.** lead by example in the plant premises while performing activities related to 5S
- GS17.** ensure self-cleanliness on a daily basis
- GS18.** demonstrate the will to keep the work area in a clean and orderly manner
- GS19.** accept additional responsibility for self and the team
- GS20.** encourage self and other to take greater responsibilities for managing 5S

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- GS21.** identify obstacles and bottlenecks in the process and find basic level solutions for removing these obstacles
- GS22.** use previous experience in resolving problems and taking decisions
- GS23.** make timely and independent decisions on the line/ shift within the boundaries of the delegation matrix of the organization

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure proper sorting of items at the work place</i>	<b>10</b>	<b>25</b>	-	-
<b>PC1..</b> ensure all recyclable materials are put in designated containers	1	2.5	-	-
<b>PC2.</b> ensure no tools, fixtures & jigs are lying on workstations unless in use and no un-necessary items is lying on workbenches or work surfaces unless in use	1	2.5	-	-
<b>PC3.</b> ensure that the operators and other team members are segregating the waste in hazardous/ non hazardous waste as per the sorting work instructions	1	2.5	-	-
<b>PC4.</b> ensure that all the operators are following the technique of waste disposal and waste storage in the designated bins	1	2.5	-	-
<b>PC5..</b> segregate the items which are labelled at red tag items for the process area and keep them in the correct places	1	2.5	-	-
<b>PC6..</b> ensure that all the tools/ equipment/ fasteners/ spare parts are arranged as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions	1	2.5	-	-
<b>PC7.</b> check for return of any type of extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area	1	2.5	-	-
<b>PC8. .</b> oversee removal of unnecessary equipment, storage, furniture, unneeded inventory, supplies, parts and material	1	2.5	-	-
<b>PC9.</b> ensure that areas of material storage areas are not overflowing	1	2.5	-	-
<b>PC10.</b> ensure proper stacking and storage of the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required	1	2.5	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure proper documentation and storage - streamlining &amp; organizing the workplace</i>	<b>3</b>	<b>7.5</b>	-	-
<b>PC11.</b> ensure that the team follows the given instructions and checks for labelling of fluids, oils lubricants, solvents, chemicals etc and proper storage of the same to avoid spillage, leakage, fire etc	1	2.5	-	-
<b>PC12.</b> make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions	1	2.5	-	-
<b>PC13.</b> ensure that organizing the workplace takes place with due considerations to the principles of wasted motions, ergonomics, work & method study .	1	2.5	-	-
<i>Ensure cleaning of self and the work place</i>	<b>4</b>	<b>10</b>	-	-
<b>PC14.</b> ensure that the area has floors swept, machinery clean and is generally neat and tidy in case of cleaning, ensure that correct displays are maintained on the floor which indicate potential safety hazards	1	2.5	-	-
<b>PC15..</b> ensure workbenches and work surfaces are clean and in good condition	1	2.5	-	-
<b>PC16..</b> ensure adherence to the cleaning schedule for the lighting system to ensure proper illumination	1	2.5	-	-
<b>PC17..</b> ensure all recyclable materials are put in designated containers	1	2.5	-	-
<i>Ensure standardization</i>	<b>5</b>	<b>12.5</b>	-	-
<b>PC18.</b> ensure that daily cleaning standards and schedules to create a clean working environment are followed across the plant	1	2.5	-	-
<b>PC19..</b> ensure all recyclable materials are put in designated containers	1	2.5	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC20.</b> . ensure logical and user friendly documentation and file management for all activities across the plant and create guidelines around standardization of processes	1	2.5	-	-
<b>PC21.</b> ensure timely creation and sharing of the 5s checklists	1	2.5	-	-
<b>PC22.</b> ensure that the 5s manual are available as per the timelines	1	2.5	-	-
<i>Ensure sustenance</i>	<b>7</b>	<b>16</b>	-	-
<b>PC23.</b> ensure team cooperation during the audit of 5 s activities	1	2.5	-	-
<b>PC24.</b> ensure that workmen are periodically trained to address challenges related to 5s	1	2.5	-	-
<b>PC25..</b> participate actively in employee work groups on 5s and encourage team members for active participation	1	2	-	-
<b>PC26..</b> oversee that the staff/operators are trained and fully understand 5s procedures	1	2	-	-
<b>PC27.</b> . ensure that all the guidelines for what to do and what not to do to build sustainability in 5s are mentioned in the 5s check lists/ work instructions and are easily searchable	1	2.5	-	-
<b>PC28.</b> ensure continuous training of the team members on 5s in order to increase their awareness and support implementation	1	2	-	-
<b>PC29.</b> ensure that all visual controls, notice boards, symbols etc at the manufacturing place are created, working and are put up as per the requirement	1	2.5	-	-
<b>NOS Total</b>	<b>29</b>	<b>71</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N0022
<b>NOS Name</b>	Ensure implementation of 5S activities at the shop floor & the office area
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic
<b>NSQF Level</b>	6
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	15/03/2014
<b>Next Review Date</b>	15/03/2016
<b>NSQC Clearance Date</b>	

## Qualification Pack

### ASC/N6311: Monitor the process and product quality

#### Description

This OS unit is about the process quality manager monitoring and maintaining the quality of the manufacturing processes and final products

#### Scope

The unit/ task covers the following:

- inspection of the final product
- audit and validation of the manufacturing processes
- performing the process capability studies
- maintaining the standards room and equipments
- inspection of fixtures and equipments
- problem solving
- maintain the quality documentation and reports
- resource management

#### Elements and Performance Criteria

##### *Inspection of final products*

To be competent, the user/individual on the job must be able to:

- PC1..** prepare a quality plan for product and process audit on annual basis and further bifurcate month wise after discussion with the qc inspectors
- PC2..** distribute the roles and responsibilities among the qc inspectors and ensure the strict implementation of the plan
- PC3..** ensure that the respective QC inspectors prepare the checklist for product audit including the following checkpoints : product dimensions functionality including Performance validation packaging & labeling
- PC4..** ensure that the frequency of the product audit is mentioned in the quality plan at npd stage and is strictly adhered to
- PC5..** coordinate with qc inspector and monitor the product audit activity. layout inspection / re-validation results are tallied with the design/development records
- PC6..** based on the results obtained , discuss with the manufacturing process owners for countermeasures required to resolve the non-conformities in the product audit and the expected timeline for same
- PC7..** ensure that all the findings of the product audit is documented & communicated to customer as per sop .ensure the discrepancies observed are co-related with 0-km / warranty performance and appropriate action plans are drawn with functional stake holders viz. production, process engg., r & d etc. & findings are reflected in the process documentation : PFMEA/CP as applicable

##### *Audit and validation of processes*

To be competent, the user/individual on the job must be able to:

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- PC8..** based on the quality plan , prepare a comprehensive manufacturing process audit checklist including the following checkpoints : raw material purchase from an approved supplier material inspection as per the requirements calibration of gauges used material in storage with labeling and preservation proper instructions followed for withdrawing from inventory (rotation, handling, )etc. part made on machine per the control plan SPC done as defined on the control plan process rate per requirements TPM followed for equipments quality data analysis for rejections, COPQ, NCs status etc. quality levels meet requirements (scrap, etc.) all steps / sequence on the control plan followed inspection requirements followed skill levels of shop floor workforce
- PC9..** frequency of the process audit
- PC10..** repeat the steps from pc5. to 8; only instead of product audit , the qc inspector should be conducting the process audit activity
- PC11..** based on the requirements of the process, ensure that the validation of manufacturing processes is being carried out by respective QC inspectors covering the following checkpoints: defined criteria for review and approval of the processes, approval of equipment and qualification of personnel, use of specific methods and procedures, requirements for records revalidation
- PC12..** ensure that the process validation non-conformities are resolved by discussion with manufacturing process owners and the processes are revalidated.
- PC13..** give feedback to npd- cft for implementation in subsequent projects. if required, seek support/feedback from senior management as per requirement

### *QMS Audit*

To be competent, the user/individual on the job must be able to:

- PC14..** be a certified internal auditor for qms/ts16949 system by undergoing the training for internal audit
- PC15..** internally audit the processes and the corresponding products as per the central internal audit plan
- PC16..** discuss with process owners and explain the reasons for giving ncs in the audit. be judicious about the ncs to be customer/ quality /improvement centric
- PC17..** ensure that the process team has mentioned suggested effective countermeasures for the root cause ( usage of 5 why etc.)
- PC18..** based on the implementation date , re-audit the non-conforming process and ensure that the ncs are closed and closure report is also prepared as per the prescribed format
- PC19..** submit the internal auditors report to the process owners for their records
- PC 20..** if required , be an auditee for the same process for the external audit by certification agency
- PC21..** ensure the smooth conduct of external audit and ensure the identified ncs are closed and signed off as per the timelines

### *Process capability studies*

To be competent, the user/individual on the job must be able to:

- PC22..** coordinate with team and ensure that the specifications are clearly understood and maintained throughout the process
- PC23..** ensure that the team has prioritized the process activities based on criticality and identified the same in the pfmeas and control plans

## Qualification Pack

- PC24..** ensure that the team has prepared a comprehensive spc schedule for carrying out the process capability studies and is strictly adhering to it
- PC25..** monitor the spc activity and review the cp and cpk for the critical processes- as indicated in cp
- PC26..** in case of Cp and Cpk for any of the processes less than 1.33 , ensure that the team had identified the abnormal process points (special causes) and devised the countermeasures for their rectification
- PC27..** ensure that the team had completely documented the process capability report and the charts for process variation depiction like x bar , range chart etc. are mapped and documented for recording purposes

### *Standards & measuring instruments & Equipments*

To be competent, the user/individual on the job must be able to:

- PC28..** strategize & co-ordinate the activities for quality assurance of the product , quality and measurement standards and link with the working of relevant functions

### *Fixtures and equipments inspection*

To be competent, the user/individual on the job must be able to:

- PC29..** prepare a plan for quality inspection of tools/fixtures/gauges covering the following checkpoints : dimensions, profiles, GD&T aspects etc. tools properties like surface finish, hardness, geometric parameters e.g. roundness, concentricity etc. precision and accuracy of usage on CMM , gauges like bore/air, slip , roundness tester etc. MSA study results for gauges and R&R as defined in SOP calibration in the Standards Room/ Lab wear and tear, damages/breakages etc
- PC30..** based on the inspection results/defects observed , analyze and discuss with the process owners countermeasures for rectification of defects and re- inspect
- PC31..** also in discussion with quality manager , inspect the fixtures used in manufacturing process in coordination with Maintenance and Process Engineering department for following checkpoints & co-relate results with the trends for the parameters in the product : fixtures profiles , dimensions wear and tear damages/breakages
- PC32..** analyze the defects observed and discuss with the concerned departments for countermeasures to be implemented for defect rectification re-inspect the defective fixtures after the implementation

### *Problem Solving*

To be competent, the user/individual on the job must be able to:

- PC33..** rejection and apply suitable prioritization and quality tools to find solutions , lead the problem solving teams.
- PC34..** pfmea /cp and update the occurrence and detection related entries suitably.
- PC35..** need for experts from pe, engineering/ r & d , maintenance to solve the problems and get these co-opted in the team

### *Documentation and reports*

To be competent, the user/individual on the job must be able to:

- PC36..** ensure that the team records all the data and reports related to quality like the rejection trends , copq, no. of ncs, no. of internal customer complaints, process validation, product and process audit reports etc.

## Qualification Pack

- PC37..** coordinate with the qc inspectors and review the defect trends (pareto charts, histograms, capability index etc.) and ensure that the countermeasures for defect prevention have been implemented
- PC38..** ensure that all the pfd, pfmeas, control plans, calibration records etc. are well documented, updated and reviewed as per schedule
- PC39..** ensure that all the msa and process control studies are regularly being conducted by the respective qc inspectors and well documented
- PC40..** prepare the mis for process quality and share it with senior management once a month for the review
- PC41..** all the reports/ppap documents pertaining to new process/product development are recorded and well documented
- PC42..** ensure that the team updates all the data related to quality in the information system followed in organization like sap/erp etc. (if applicable)

### *Resource management*

To be competent, the user/individual on the job must be able to:

- PC43..** provide approval for recruitment of sufficient amount of staff in coordination with hr department for carrying out the various activities in different departments of customer quality assurance
- PC44..** ensure that the new joiners are given proper training by the existing staff members in an efficient and timely manner
- PC45..** prepare the annual budget for the customer quality assurance activities and seek approval from senior management
- PC46..** provide inputs for mis report for quality assurance on monthly basis

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** product portfolio of organization
- KU2.** the manufacturing processes of organization
- KU3.** material classification criteria followed by organization
- KU4.** policies and procedures for storage and preservation of materials
- KU5.** policies , compliances and systems followed for HSE
- KU6.** TS-16949/any other QMS system guidelines followed in the organization
- KU7.** New Process/Product development protocol and methodology
- KU8.** third party agencies for calibration of equipments
- KU9.** manufacturing process being followed for each product
- KU10.** inspection checkpoints for product and process audits
- KU11.** tests performed for product and process parameters maintenance
- KU12.** process validation methodology followed
- KU13.** R&R gauge study procedures
- KU14.** calibration certificate contents
- KU15.** QC tools like MSA , SPC , Pareto analysis , Fishbone diagram etc.

## Qualification Pack

- KU16.** APQP procedures
- KU17.** data analysis tools like TOPS-8Ds , five why analysis etc.
- KU18.** documentation requirements for PPAP
- KU19.** documentation requirements for TS-16949/QMS system followed
- KU20.** laboratory and testing guidelines mentioned in ISO/IEC17025 standard
- KU21.** standard room parameters and requirements
- KU22.** dimension validation and testing methods for product
- KU23.** testing equipments operational knowledge
- KU24.** information systems like SAP, ERP etc

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** the supplier quality and the concerned departments for discrepancies observed in new parts/tool development
- GS2.** senior management for updating the progress and seeking their support
- GS3.** team members for reviewing the progress of day to day activities
- GS4.** distribute workload among team members ensuring smooth progress of material inspection activity and within the desired timelines
- GS5.** coordinate with various departments like Metallurgy , Vendor Development, Manufacturing, R&D, process Quality etc. based on the requirement /subassembly validation
- GS6.** share operation knowledge with colleagues
- GS7.** understand the drawings for part/tool and interpret the key characteristics like dimensions, profile, material etc
- GS8.** prepare the dimension testing reports for the parts/sub-assemblies using precise terminology for acceptance, defects , actions to be taken etc
- GS9.** understand the inspection reports of the Metallurgy /Materials department
- GS10.** prepare the inspection reports and maintain records
- GS11.** think through and devise the countermeasure for resolution for any quality related issue observed in the manufacturing process
- GS12.** work on actions to be taken on immediate basis in case of frequent rejections during the manufacturing processes
- GS13.** resolve issues related to process control and MSA studies implementation
- GS14.** devise and implement interim/permanent countermeasures for the nonconformities observed during the product and the process audit based on the severity
- GS15.** brainstorm the reasons for abnormal special causes identified in SPC analysis for the unstable processes and devise their countermeasures
- GS16.** identify problems (technical and non-technical), disruptions and delays
- GS17.** analyze the interim countermeasures taken for the resolution of nonconformities observed in the product & process audit and accordingly devise the permanent countermeasures for prevention from re-occurrence

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Inspection of final products</i>	<b>7</b>	<b>16</b>	-	-
<b>PC1..</b> prepare a quality plan for product and process audit on annual basis and further bifurcate month wise after discussion with the qc inspectors	1	3	-	-
<b>PC2..</b> distribute the roles and responsibilities among the qc inspectors and ensure the strict implementation of the plan	1	2	-	-
<b>PC3..</b> ensure that the respective QC inspectors prepare the checklist for product audit including the following checkpoints : product dimensions functionality including Performance validation packaging & labeling	1	3	-	-
<b>PC4..</b> ensure that the frequency of the product audit is mentioned in the quality plan at npd stage and is strictly adhered to	1	2	-	-
<b>PC5..</b> coordinate with qc inspector and monitor the product audit activity. layout inspection / re-validation results are tallied with the design/development records	1	2	-	-
<b>PC6..</b> based on the results obtained , discuss with the manufacturing process owners for countermeasures required to resolve the non-conformities in the product audit and the expected timeline for same	1	2	-	-
<b>PC7..</b> ensure that all the findings of the product audit is documented & communicated to customer as per sop .ensure the discrepancies observed are co-related with 0-km / warranty performance and appropriate action plans are drawn with functional stake holders viz. production, process engg., r & d etc. & findings are reflected in the process documentation : PFMEA/CP as applicable	1	2	-	-
<i>Audit and validation of processes</i>	<b>6</b>	<b>11</b>	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC8..</b> based on the quality plan , prepare a comprehensive manufacturing process audit checklist including the following checkpoints : raw material purchase from an approved supplier material inspection as per the requirements calibration of gauges used material in storage with labeling and preservation proper instructions followed for withdrawing from inventory (rotation, handling, )etc. part made on machine per the control plan SPC done as defined on the control plan process rate per requirements TPM followed for equipments quality data analysis for rejections, COPQ, NCs status etc. quality levels meet requirements (scrap, etc.) all steps / sequence on the control plan followed inspection requirements followed skill levels of shop floor workforce	1	3	-	-
<b>PC9..</b> frequency of the process audit	1	1	-	-
<b>PC10..</b> repeat the steps from pc5. to 8; only instead of product audit , the qc inspector should be conducting the process audit activity	1	1	-	-
<b>PC11..</b> based on the requirements of the process, ensure that the validation of manufacturing processes is being carried out by respective QC inspectors covering the following checkpoints: defined criteria for review and approval of the processes, approval of equipment and qualification of personnel, use of specific methods and procedures, requirements for records revalidation	1	2	-	-
<b>PC12..</b> ensure that the process validation non-conformities are resolved by discussion with manufacturing process owners and the processes are revalidated.	1	2	-	-
<b>PC13..</b> give feedback to npd- cft for implementation in subsequent projects. if required, seek support/feedback from senior management as per requirement	1	2	-	-
<i>QMS Audit</i>	<b>4.5</b>	<b>16</b>	-	-
<b>PC14..</b> be a certified internal auditor for qms/ts16949 system by undergoing the training for internal audit	1	2	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC15..</b> internally audit the processes and the corresponding products as per the central internal audit plan	0.5	2	-	-
<b>PC16..</b> discuss with process owners and explain the reasons for giving ncs in the audit. be judicious about the ncs to be customer/ quality /improvement centric	0.5	2	-	-
<b>PC17..</b> ensure that the process team has mentioned suggested effective countermeasures for the root cause ( usage of 5 why etc.)	0.5	2	-	-
<b>PC18..</b> based on the implementation date , re-audit the non-conforming process and ensure that the ncs are closed and closure report is also prepared as per the prescribed format	0.5	2	-	-
<b>PC19..</b> submit the internal auditors report to the process owners for their records	0.5	2	-	-
<b>PC 20..</b> if required , be an auditee for the same process for the external audit by certification agency	0.5	2	-	-
<b>PC21..</b> ensure the smooth conduct of external audit and ensure the identified ncs are closed and signed off as per the timelines	0.5	2	-	-
<i>Process capability studies</i>	<b>3</b>	<b>8</b>	-	-
<b>PC22..</b> coordinate with team and ensure that the specifications are clearly understood and maintained throughout the process	0.5	1	-	-
<b>PC23..</b> ensure that the team has prioritized the process activities based on criticality and identified the same in the pfmeas and control plans	0.5	2	-	-
<b>PC24..</b> ensure that the team has prepared a comprehensive spc schedule for carrying out the process capability studies and is strictly adhering to it	0.5	2	-	-
<b>PC25..</b> monitor the spc activity and review the cp and cpk for the critical processes- as indicated in cp	0.5	1	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC26..</b> in case of Cp and Cpk for any of the processes less than 1.33 , ensure that the team had identified the abnormal process points (special causes) and devised the countermeasures for their rectification	0.5	1	-	-
<b>PC27..</b> ensure that the team had completely documented the process capability report and the charts for process variation depiction like x bar , range chart etc. are mapped and documented for recording purposes	0.5	1	-	-
<i>Standards &amp; measuring instruments &amp; Equipments</i>	<b>0.5</b>	<b>1</b>	-	-
<b>PC28..</b> strategize & co-ordinate the activities for quality assurance of the product , quality and measurement standards and link with the working of relevant functions	0.5	1	-	-
<i>Fixtures and equipments inspection</i>	<b>2</b>	<b>4</b>	-	-
<b>PC29..</b> prepare a plan for quality inspection of tools/fixtures/gauges covering the following checkpoints : dimensions, profiles, GD&T aspects etc. tools properties like surface finish, hardness, geometric parameters e.g. roundness, concentricity etc. precision and accuracy of usage on CMM , gauges like bore/air, slip , roundness tester etc. MSA study results for gauges and R&R as defined in SOP calibration in the Standards Room/ Lab wear and tear, damages/breakages etc	0.5	1	-	-
<b>PC30..</b> based on the inspection results/defects observed , analyze and discuss with the process owners countermeasures for rectification of defects and re- inspect	0.5	1	-	-
<b>PC31..</b> also in discussion with quality manager , inspect the fixtures used in manufacturing process in coordination with Maintenance and Process Engineering department for following checkpoints & co-relate results with the trends for the parameters in the product : fixtures profiles , dimensions wear and tear damages/breakages	0.5	1	-	-
<b>PC32..</b> analyze the defects observed and discuss with the concerned departments for countermeasures to be implemented for defect rectification re-inspect the defective fixtures after the implementation	0.5	1	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Problem Solving</i>	<b>1.5</b>	<b>3</b>	-	-
<b>PC33..</b> rejection and apply suitable prioritization and quality tools to find solutions , lead the problem solving teams.	0.5	1	-	-
<b>PC34..</b> pfmea /cp and update the occurrence and detection related entries suitably.	0.5	1	-	-
<b>PC35..</b> need for experts from pe, engineering/ r & d , maintenance to solve the problems and get these co-opted in the team	0.5	1	-	-
<i>Documentation and reports</i>	<b>3.5</b>	<b>7</b>	-	-
<b>PC36..</b> ensure that the team records all the data and reports related to quality like the rejection trends , copq, no. of ncs, no. of internal customer complaints, process validation, product and process audit reports etc.	0.5	1	-	-
<b>PC37..</b> coordinate with the qc inspectors and review the defect trends (pareto charts, histograms, capability index etc.) and ensure that the countermeasures for defect prevention have been implemented	0.5	1	-	-
<b>PC38..</b> ensure that all the pfd, pfmeas, control plans, calibration records etc. are well documented, updated and reviewed as per schedule	0.5	1	-	-
<b>PC39..</b> ensure that all the msa and process control studies are regularly being conducted by the respective qc inspectors and well documented	0.5	1	-	-
<b>PC40..</b> prepare the mis for process quality and share it with senior management once a month for the review	0.5	1	-	-
<b>PC41..</b> all the reports/ppap documents pertaining to new process/product development are recorded and well documented	0.5	1	-	-
<b>PC42..</b> ensure that the team updates all the data related to quality in the information system followed in organization like sap/erp etc. (if applicable)	0.5	1	-	-
<i>Resource management</i>	<b>2</b>	<b>4</b>	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC43..</b> provide approval for recruitment of sufficient amount of staff in coordination with hr department for carrying out the various activities in different departments of customer quality assurance	0.5	1	-	-
<b>PC44..</b> ensure that the new joiners are given proper training by the existing staff members in an efficient and timely manner	0.5	1	-	-
<b>PC45..</b> prepare the annual budget for the customer quality assurance activities and seek approval from senior management	0.5	1	-	-
<b>PC46..</b> provide inputs for mis report for quality assurance on monthly basis	0.5	1	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N6311
<b>NOS Name</b>	Monitor the process and product quality
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing Support
<b>Occupation</b>	Quality Assurance
<b>NSQF Level</b>	7
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	27/08/2013
<b>Next Review Date</b>	30/07/2015
<b>NSQC Clearance Date</b>	

## Qualification Pack

# ASC/N6312: Coordinate with various departments for improving the quality standards

## Description

This OS unit is about the individual coordinating with various departments for improving the quality standards for the final product delivered to the customer

## Scope

This unit/ task covers the following:

- standards room maintenance
- gauge planning and procurement
- knowledge management for reliability analysis
- auditing the processes for QMS/TS16949 compliance system

## Elements and Performance Criteria

### *Knowledge management for reliability analysis*

To be competent, the user/individual on the job must be able to:

- PC1..** ensure coordination with reliability engineering in R&D department and sharing the revised and updated PFMEAs details with respect to the RPN nos of the failure modes , new failure modes etc.
- PC2..** if required, discuss with reliability department the countermeasures/ process/ design changes for addressing the high RPN failure modes
- PC3..** also analyze the testing and inspection reports for dimensional analysis , validation/audit of product and process and share the analysis with R&D department
- PC4..** ensure coordination with R&D department and provide inputs for modification/update of reliability system techniques like fault tree, block diagrams analysis etc. for improvement of the quality standards and reduce the failures
- PC5..** remotely monitor the coordination activities with the team on periodic basis and resolve the discrepancies arising
- PC6..** if required , present the findings with the senior management and seek their feedback
- PC7..** based on the organization information system , share the knowledge for reliability engineering with the R&D department

### *Internal QMS Audit*

To be competent, the user/individual on the job must be able to:

- PC8..** be a certified Internal auditor for QMS/TS16949 system by undergoing the training for internal audit
- PC9..** internally audit the processes and the corresponding products as per the central internal audit plan
- PC10..** discuss with process owners and explain the reasons for giving NCs in the audit
- PC11..** ensure that the process team has mentioned suggested countermeasures and duly signed the NC report

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- PC12..** based on the implementation date , re-audit the non-conforming process and ensure that the NCs are closed and closure report is also prepared as per the prescribed format
- PC13..** submit the internal auditors report to the process owners for their records
- PC14..** if required , be an audittee for the same process for the external audit by certification agency
- PC15..** ensure the smooth conduct of external audit and ensure the identified NCs are closed and signed off as per the timelines

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** knowledge about the product portfolio of the organization
- KU2.** in-depth knowledge of the manufacturing processes of the organization
- KU3.** QMS system followed in organization
- KU4.** reliability engineering knowledge management system
- KU5.** certification agency for TS16949/QMS certification
- KU6.** the knowledge requirements for internal auditor certification
- KU7.** guidelines for the QMS system followed in the company
- KU8.** internal auditor training methodology
- KU9.** internal auditors checklis
- KU10.** QMS/TS16949 system guidelines and requirements
- KU11.** PFMEA contents and interpretation
- KU12.** failure testing done for validation
- KU13.** techniques used for reliability engineering

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate with the gauges vendors and Sourcing department for gathering the procurement status and resolve discrepancies
- GS2.** coordinate with team members and room incharge for progress updates of standard room activities execution
- GS3.** gather the data pertaining to failure analysis for knowledge sharing with R&D department
- GS4.** distribute workload among team members for performing standard room testing and inspection activities in an efficient and timely manner
- GS5.** coordinate with team and gather inputs pertaining to reliability analysis
- GS6.** share operation knowledge with colleagues
- GS7.** present in front of the senior management the reliability analysis in terms for their review
- GS8.** seek support from senior management as per requirement by sharing presentations/excel sheets for data pertaining to manufacturing quality

## Qualification Pack

- GS9.** understand the documentation done by vendor complying to TS 16949/QMS system guidelines
- GS10.** understand the failure analysis data mentioned in PFMEAs and accordingly devise strategies for addressal of concerns
- GS11.** interpret the testing and inspection reports performed in standards room
- GS12.** problems (technical and non-technical), disruptions and delays
- GS13.** escalation procedures
- GS14.** to work with a fall back action plan in the event of any issue
- GS15.** decide with respect to HSE compliance violations by the team members/gauge vendors
- GS16.** based on the process owners feedback , review and analyze the countermeasures effectiveness for NC closure

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Knowledge management for reliability analysis</i>	<b>14</b>	<b>32</b>	-	-
<b>PC1..</b> ensure coordination with reliability engineering in R&D department and sharing the revised and updated PFMEAs details with respect to the RPN nos of the failure modes , new failure modes etc.	2	4	-	-
<b>PC2..</b> if required, discuss with reliability department the countermeasures/ process/ design changes for addressing the high RPN failure modes	2	4	-	-
<b>PC3..</b> also analyze the testing and inspection reports for dimensional analysis , validation/audit of product and process and share the analysis with R&D department	2	6	-	-
<b>PC4..</b> ensure coordination with R&D department and provide inputs for modification/updation of reliability system techniques like fault tree, block diagrams analysis etc. for improvement of the quality standards and reduce the failures	2	4	-	-
<b>PC5..</b> remotely monitor the coordination activities with the team on periodic basis and resolve the discrepancies arising	2	4	-	-
<b>PC6..</b> if required , present the findings with the senior management and seek their feedback	2	5	-	-
<b>PC7..</b> based on the organization information system , share the knowledge for reliability engineering with the R&D department	2	5	-	-
<i>Internal QMS Audit</i>	<b>16</b>	<b>38</b>	-	-
<b>PC8..</b> be a certified Internal auditor for QMS/TS16949 system by undergoing the training for internal audit	2	5	-	-
<b>PC9..</b> internally audit the processes and the corresponding products as per the central internal audit plan	2	5	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10..</b> discuss with process owners and explain the reasons for giving NCs in the audit	2	5	-	-
<b>PC11..</b> ensure that the process team has mentioned suggested countermeasures and duly signed the NC report	2	5	-	-
<b>PC12..</b> based on the implementation date , re-audit the non-conforming process and ensure that the NCs are closed and closure report is also prepared as per the prescribed format	2	5	-	-
<b>PC13..</b> submit the internal auditors report to the process owners for their records	2	4	-	-
<b>PC14..</b> if required , be an audittee for the same process for the external audit by certification agency	2	4	-	-
<b>PC15..</b> ensure the smooth conduct of external audit and ensure the identified NCs are closed and signed off as per the timelines	2	5	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N6312
<b>NOS Name</b>	Coordinate with various departments for improving the quality standards
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing Support
<b>Occupation</b>	Quality Assurance
<b>NSQF Level</b>	7
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	23/08/2013
<b>Next Review Date</b>	30/07/2015
<b>NSQC Clearance Date</b>	

## Qualification Pack

### Assessment Guidelines and Assessment Weightage

#### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

**Recommended Pass % : 75**

#### Assessment Weightage

##### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N0002.Work effectively in a team	25	75	-	-	100	10
ASC/N0006.Maintain a safe and healthy working environment	25	75	-	-	100	10
ASC/N0022.Ensure implementation of 5S activities at the shop floor & the office area	29	71	-	-	100	10

### Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N6311.Monitor the process and product quality	30	70	-	-	100	35
ASC/N6312.Coordinate with various departments for improving the quality standards	30	70	-	-	100	35
<b>Total</b>	<b>139</b>	<b>361</b>	<b>-</b>	<b>-</b>	<b>500</b>	<b>100</b>

## Qualification Pack

### Acronyms

<b>NOS</b>	National Occupational Standard(s)
<b>NSQF</b>	National Skills Qualifications Framework
<b>QP</b>	Qualifications Pack
<b>TVET</b>	Technical and Vocational Education and Training

## Qualification Pack

### Glossary

<b>Sector</b>	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
<b>Scope</b>	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

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<b>Knowledge and Understanding (KU)</b>	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
<b>Organisational Context</b>	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
<b>Electives</b>	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
<b>Options</b>	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.